TABULATION OF DATA ON MICROWAVE TUBES

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UNITED STATES DEPARTMENT OF COMMERCE • Luther H. Hodges, *Secretary*
NATIONAL BUREAU OF STANDARDS • A. V. Astin, *Director*

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Foreword

This tabulation of data on microwave tubes currently in use has been prepared as part of the National Bureau of Standards Electron Devices Data Service. Established in 1948 to provide technical data on radio tubes to members of the Bureau Staff, the service has since been extended to all scientists and engineers in government and industry. In the course of the program, a large volume of information on domestic and foreign devices was accumulated on punched cards from which it could be automatically printed. It was felt desirable to make these data available in a single reference source as an aid to circuit designers in selecting tube types for particular uses.

The engineer should find this manual useful in narrowing down the choice of tubes to one or a few types. However, it is not practical to give all possible operating conditions or to provide the characteristic curves for each tube in a tabulation such as this. It will still be necessary to consult the tube manufacturer's literature for such detailed information.

All information appearing in this publication was taken from manufacturer's published specifications, and every effort has been made to ensure accuracy and completeness. However, the Bureau cannot assume responsibility for omissions nor for results obtained with these data.

The coding system and format used in this manual were developed and improved through consultations with representatives of the Bureau of Ships, Department of the Navy; Diamond Ordnance Fuze Laboratory, Department of the Army; and private industry. Their cooperation is gratefully acknowledged.

A tabulation of data on receiving tubes has been issued previously as NBS Handbook 68. Additional tabulations for other electron devices are being developed and will be issued as rapidly as they are completed. Also, revisions of this and other tabulations will be issued as deemed necessary to keep them up to date.

A. V. Astin, *Director.*

Contents

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A tabulation of microwave electron tubes with characteristics of each type has been arranged in the form of two major listings, a Numerical Listing in which the tubes are arranged by type number, and a Characteristic Listing in which the tubes are arranged by the kind of tube, and further ordered on the basis of minimum frequency and power. The tabulation is accompanied by a listing of similar tube types and other manufacturers of certain types.

1. Introduction

The Electron Devices Section of the National Bureau of Standards has developed over the past decade an Electron Devices Data Service. This service collects and maintains a file of data on all electron devices, i.e., tubes, transistors, diodes, etc., manufactured in the United States and other countries. In an effort to make this service more readily available to engineers applying electronics in the laboratories throughout the country, it was decided to develop a method of tabulating the essential information pertaining to tube characteristics in handbook form for ready reference. For this publication on Microwave Tubes, an easily decipherable code and format of the tube characteristics which was adaptable to punched cards was developed. Both accuracy and flexibility are incorporated into the system. The sources of information were the manufacturers' published handbooks and data sheets. The accuracy of the printed information is reasonably assured by verifying tabulations by various sortings and cross checking with manufacturers' publications. This tabulation includes only the information normally furnished by the manufacturers in their handbooks or data sheets. All data in our files up to October 1, 1960, is included in this tabulation.

This tabulation includes only those tube types of the general class known in the field of electronics as microwave tubes, i.e., tubes employed as oscillators and power amplifiers at frequencies above approximately 1,000 Mc and which are "velocity controlled" with transit times in excess of 0.3 radian. Some developmental types have been included.

2. Organization of the Tabulation

The Microwave Tabulation comprises four principal sections as follows:

1. *Numerical Listing.* In this, the tubes are arranged by type number in the numerical-alphabetical sequence which is standard in the industry.
2. *Characteristics Listing.* Here the tubes are sorted into the basic groups and then are arranged by increasing value of one or more pertinent characteristics.
3. *Similar Tube Types.* Here are found those tubes from sections 1 and 2 which are coded as having other similar types available.
4. *Other Manufacturers.* In this section, those tube types are tabulated which are coded in sections 1 and 2 as being manufactured by other than the original registrant with the Electronic Industries Association.

3. Sorting and Terminology of the Tabulation

To assist the user in understanding and applying the tabulation, the method of sorting and the definition of terms and code used, are explained in this section.

3.1. Sorting Methods

The Numerical Listing is arranged in the numerical-alphabetical sequence by tube type number which is explained under the heading "Type Number" in section 3.2.

In the Characteristic Listing, the tube types are arranged into basic groups or kinds, e.g., klystron amplifier, klystron oscillators, magnetrons, etc., and then sorted primarily by minimum frequency and secondarily by power output. The basic groups are listed under the heading "Kind" in section 3.2, Terminology. This method of sorting permits the user to find the type numbers which most completely satisfy his requirements.

3.2. Terminology

The Numerical and Characteristic Listings are in tabular form containing 24 columns. The headings of these columns and their meanings are given below.

A blank in any column indicates that the characteristic designated by the column is not applicable to the type number in question or that no value was given in the available data.

Definitions

Type Number. This column lists the numerical-alphabetical designation assigned by the manufacturer. The Numerical Listing on page 5 has been arranged according to the industry standard, i.e., primarily by arranging the initial numerical portion in sequence, secondarily by arranging the alphabetical prefix in sequence and finally by arranging the alphabetical suffix in order e.g.

PKX2
PA3
PKX3
PKX3A
3K2500LX
3K2500SG
3K3000LQ
3K20,000LA

Code. The letter "M" in this column, indicates that there are manufacturers other than the listed manufacturer or registrant who produce this tube. A list of these manufacturers will be found in the other manufacturers list on page 127.

The letter "S" in this column, indicates that this tube is similar to some other type. A tabulation of these types will be found in the Similar Tubes list on pages 117 through 126. These similar types are those stated by the manufacturers as being similar to, a frequency variant of, or a Prototype of a given tube.

The letter "X" in this column, indicates that there are both similar types and other manufacturers of this type.

An asterisk (*) is used to designate tube types found in the Military Preferred list issued by the Department of Defense as "Military Standard Electron Tubes and Semiconductor Devices, Diode" MIL–STD–200E (2 March 1960) and MIL–STD–200E (7 July 1960) (Navy Supplement 1B).

A number sign (#) designates a reliable or premium type as indicated by the manufacturer.

Kind. A three-letter code is used to describe the generic group of tubes. This is used as the primary sorting means for the Characteristic Listing.

AMA	Amplitron Amplifier or Platinotron
AMO	Amplitron Oscillator or Stabilotron
BWA	Backward Wave Amplifier
BWO	Backward Wave Oscillator
CAR	Carcinotron
HEL	Helitron
KLA	Klystron Amplifier
KLM	Klystron Multiplier
KLO	Klystron Oscillator
MAG	Magnetron
TWA	Traveling Wave Amplifier
TWM	Traveling Wave Multiplier

Frequency. Both minimum and maximum frequency of operation are listed in gigacycles (10^9 cps) with the exception that the "letter-band" designation (i.e., S-band, X-band) is used when more specific information is unavailable. Fixed-tuned tubes are available at any frequency within the tabulated range. In the case of frequency multiplier tubes, *output frequency* is tabulated.

Duty Cycle. The duty cycle for pulsed operation is often specified as a percentage, although it may also appear as the product of the pulse-duration time (*tp*) and the pulse-repetition rate (*prr*). The tabulated value is the product of the pulse-duration time and the pulse-repetition rate times 10^4. The following table illustrates both methods of specifying Duty Cycle and the corresponding tabulated value.

Duty cycle		Tabulated
%	(*tp*) (*prr*)	*Value*
0.05	0.0005	5
.1	.001	10
1.0	.01	100
10.0	.1	1K
15.0	.15	*1K (between 10% and 20%)
20.0	.2	2K

Tuning. The method by which the tube is frequency-tuned is shown by the following alphabetical code.

FX	Fixed tuned
HY	Hydraulically tuned
MEC	Mechanically tuned
TH	Thermally tuned
VT	Voltage tuned

Manufacturer. The alphabetical code refers to either the company originally registering the tube type with the Electronic Industries Association or a probable manufacturer of the type. In case of foreign tubes produced by more than one manufacturer, this column is blank. The known manufacturers will be found in the listing of Other Manufacturers beginning on page 127.

AM	Amperex Electronic Corp.
BE	Bendix Aviation Corp.
BL	Bomac Laboratories, Inc.
BT	Bell Telephone Laboratories, Inc.
CF	Compagnie Francaise Thomson-Houston
CS	Compagnie Generale de T.S.F.
EE	English Electric Valve Co.
EC	Microwave Electronics Corp.
EI	Eitel McCullough, Inc.
EM	E.M.I. Electronics Ltd.
FE	Ferranti Electric Co.
GC	General Electric Co., Ltd.
GE	General Electric Co.
GL	Geisler Laboratories
HI	Hitachi Ltd.
HP	Hughes Products

HU	Huggins Laboratories, Inc.
IT	International Telephone & Telegraph Corp.
KK	Kobe Kogyo
LI	Litton Industries
LR	Lorenz Rohren
MA	Microwave Associates, Inc.
MC	Canadian Marconi Co.
ME	Microwave Electronic Tube Co., Inc.
MU	Mullard Ltd.
NE	Nippon Electric Co.
PH	Philips Laboratories
PO	Polarad Electronics Corp.
RA	Raytheon Manufacturing Co.
RC	Radio Corporation of America
RE	Rogers Electronic Tubes & Components
SE	Stewart Engineering Co.
SF	Societe Francaise Radioelectrique
SP	Sperry Electric Tube Division
ST	Standard Telephones & Cables Ltd.
SY	Sylvania Electric Products, Inc.
TE	Telefunken G.M.B.H.
TH	British Thomson-Houston Co., Ltd.
TO	Tokyo-Shibaura (Toshiba)
TU	Tucor, Inc.
VA	Varian Associates
WE	Western Electric Co., Inc.
WH	Westinghouse Electric Corp.
WJ	Watkins-Johnson Co.

Operation. This is an alphabetical code to indicate the type or operation, as shown,

C Continuous Wave Operation

P Pulsed Operation (If a manufacturer has specified different operating parameters depending upon a tubes' operation either pulsed or CW, the tube is tabulated twice to include both sets of conditions.)

Ef. The nominal heater or filament voltage in volts.

If. The nominal heater or filament current in milliamperes.

Beam or Anode Volts. The maximum anode, beam or resonator voltage. All voltages and currents given in this and the following columns are maximum values (peak values in the case of pulsed tubes) as these will aid in determining the power supplies needed to operate the tube over its complete range.

Ik. The maximum cathode or plate current in milliamperes.

Po. The maximum power output.

Collector Reflector, etc. Volts. The maximum collector, reflector line, etc. voltage whichever is most applicable.

Control Volts Eg_1. The maximum control, focusing or grid supply voltage.

Helix Voltage. The maximum helix or delay-line voltage of traveling wave tubes.

Gain. The maximum, small-signal gain in decibels, or in the case of frequency multiplier tubes, the multiplication factor.

NF. The typical noise factor in decibels.

Pulling Factor. The pulling factor in megacycles per second. A pulling factor of less than one megacycle is indicated by *1.

Bandwidth. The frequency difference between half-power points for amplifier tubes or the electronic tuning range for oscillator tubes.

Magnetic Field. Numerical figures indicate the magnetic field strength in gauss or the alphabetical code "IM" indicates an integral permanent magnet.

Cavity. The number and type of cavities characteristic of the tube is indicated by the code.

IN	Internal Cavity
EX	External Cavity
RE	Reflex, External Cavity
RI	Reflex, Internal Cavity
#I	Number of internal Cavities
#E	Number of external Cavities
R	Reflex

Coupling. The type of output coupling of the tube is coded as follows:

CO	Coaxial
SP	Special
WG	Waveguide
WC	Waveguide or Coaxial

3.3. Unit Symbols

While the normally used electrical unit is printed at the top of each column, it will be noted that letter symbols are used following some numbers to indicate a change of unit.

Symbol	Heading	Unit
"A"	If	Amperes
"K"	Eb	Kilovolts
"A"	Ik	Amperes
"U"	Ik	Microamperes
"K"	Po	Kilowatts
"M"	Po	Megawatts
"U"	Po	Microwatts
"W"	Po	Watts
"K"	Collector Reflector Voltage	Kilovolts
"K"	Control Voltage	Kilovolts
"K"	Helix Voltage	Kilovolts
"K"	Bandwidth	Kilocycles

4. Numerical Listing of Tube Types

TYPE NUMBER	CODE	KIND	FREQUENCY Min	FREQUENCY Max	DUTY CYCLE	TUNING	MFR	OPERATION	E_f	I_f	MAXIMUM E_b	MAXIMUM I_k	MAXIMUM P_o	MAXIMUM REFLECTOR COLLECTOR	MAXIMUM E_{g_1}	MAXIMUM HELIX VOLTAGE	MAXIMUM GAIN	TYPICAL NF	TYPICAL PULL FACTOR	TYPICAL BAND WIDTH	TYPICAL MAG FIELD	CAVITY	COUPLING
			G_c	G_c	10^4				v	ma	v	ma	mw	v	v	v	db	db		Mc	gauss		
BLM-003		MAG	9.0	9.5		MEC	BL						150W										CO
BLM-006		MAG	23.8	24.3		FX	BL						40K										WG
BLM-012	#	MAG	8.9	9.4	30	MEC	BL	P	5.0	725	2700	2200	1K						15		1M		CO
BLM-014	#	MAG	8.5	9.0	20	MEC	BL	P	5.0	500	1500	1200	150W						15		1M		CO
BLM-015	#	MAG	9.0	9.5	20	MEC	BL	P	5.0	500	1500	1300	350W						17		1M		CO
G-020		TWA	0.5	1.0			GL						10										
G-020P		TWA	0.5	1.0			GL						10										
BLM-021	#	MAG	8.9	9.4	30	MEC	BL	P	5.0	725	2700	2200	1K						15		1M		WG
BLM-027		MAG	16.0	16.4		MEC	BL						500W										WG
BLM-046	#	MAG	8.9	9.4		MEC	BL						1K										
G-050		TWA	1.0	2.0			GL						10										
G-050P		TWA	1.0	2.0			GL						10										
BLM-059	#	MAG	8.6	9.6		MEC	BL	P					250K								IM		
BLM-068		MAG	24.0	24.0		FX	BL	P					25K										
G-070		TWA	1.0	2.0			GL						10										
BA1		BWA	2.4	3.6			HU	C	6.3	2300	500	15		1500		2K	10			30	820		CO
DA1		TWA	2.0	4.0		VT	HU	C	6.3	850	650	2		2380		2K	28			150	250		CO
DHA1		TWA	2.0	4.0		VT	HU	C	6.3	750	600	750U		2280		2K	28			600	100		CO
HA1		TWA	2.0	4.0		VT	HU	C	6.3	1000	350	4	10	525		525	30				300		CO
HO1		BWO	2.0	4.0		VT	HU	C	6.3	2000	300	15	10	3400		3K					760		CO
JNT1-500		MAG	12.2	13.5	20	MEC	MU	P	24.0	2200	34K	60A	600K						5		1400		CO
KLX1	M	KLA	9.0	9.6		FX	GC	C	4.1	4800	11K		1K				57					41	WG
MAS-1A		TWA	2.0	4.0	55		HP	P	8.0	4000	8000	2000	1K	8000		7K	40			2K	IM		CO
MAS-1D		TWA	2.0	4.0	50		HP	P	6.5	4300	7000	1400	1K	7000		7K	33				1M		CO
MAS-1E	#	TWA	2.0	4.0	100		HP	P			7000		1K		250		39				IM		CO
PA1		TWA	8.0	11.0	300	VT	HU	P	7.0	1400	2600	50	1000	2600	100	3K	30				1000		CO
PAX-1		BWA	0.8	1.0		VT	HP	C	4.8	1250		400U	200U	800	5	650	20	5		12	1M		WG
TWS1	M	TWA	1.5	3.0				C				85	35W	2200			40				600		
1EO	M	TWA	4.4	5.0		FX		C	6.3	800		50	5000	1350		1K	34	30		600	600		WG
1K015CA	#	KLO	5.4	6.0		MEC	EI	C	6.3	800	350	50	100	250								R1	CO
1K015CG	#	KLO	5.4	6.0		MEC	E1	C	6.3	800	350	50	100	250								R1	WG
1K015XA	#	KLO	8.4	9.6		MEC	E1	C	6.3	800	350	50	100	500						60		R1	CO
1K015XG	#	KLO	8.4	9.6		MEC	EI	C	6.3	800	350	50	100	500						60		R1	WG
1K20KA	#	KLO	10.7	11.7		MEC	EI	C	6.3	800	350	50	40	500						20		R1	WG
1K20XD	#	KLO	10.0	10.8		MEC	E1	C	6.3	800	350	50	25	500						20		R1	WG

NUMERICAL LISTING

TYPE NUMBER	CODE	KIND	FREQUENCY		DUTY CYCLE	TUNING	MFR	OPERATION	E_f	I_f	MAXIMUM							TYPICAL					
			Min	Max							E_b	I_k	P_o	REFLECTOR COLLECTOR	E_{g_1}	HELIX VOLTAGE	GAIN	NF	PULL FACTOR	BAND WIDTH	MAG FIELD	CAVITY	COUPLING
			G_c	G_c	10^4				v	ma	v	ma	mw	v	v	v	db	db		Mc	gauss		
1K20XK	#	KLO	9.2	10.0		MEC	EI	C	6.3	800	350	50	25	500						20		RI	WG
1K20XS	#	KLO	8.5	9.3		MEC	EI	C	6.3	800	350	50	25	500						20		RI	WG
1K75CH	#	KLO	4.3	4.3		FX	EI	C	6.3	1250	850	100	1000	500						30		RI	CO
1K75CK	#	KLO	4.3	4.3		FX	EI	C	6.3	1250	850	100	1000	500						30		RI	WG
1K125CA	#	KLO	3.7	4.4		MEC	EI	C	6.3	1100	1000	90	2000	250						50		RI	WG
1K125CB	#	KLO	4.4	5.0		MEC	EI	C	6.3	1100	1000	90	2300	350						40		RI	WG
1K125CC		KLO	4.4	5.0		MEC	EI	C	6.3	1250	1000	110	2600	750						35		RI	WG
BA2		BWA	8.2	12.4			HU	C	6.3	1200	400	11		2400		2K	10			100	1000		CO
DA2		TWA	1.0	2.0		VT	HU	C	6.3	1200	330	750U		1020		1K	33			300	250		CO
DHA2		TWA	1.0	2.0		VT	HU	C	6.3	750	350	200U		920		1K	33			300	100		CO
HA2		TWA	2.0	4.0		VT	HU	C	7.0	1000	450	25	2000	1100		1K	47	30			600		CO
HO2		BWO	8.2	12.4			HU	C	6.3	1200	350	12	10	2000		2K					1000		CO
HO2B		BWO	7.0	14.0		VT	HU	C	7.0	800	500	12	10	3400		3K					1000		CO
JN2-0.2		MAG	2.4	2.4		FX	MU	C	5.3	3300	1600	220	290W								IM		CO
JN2-2.5A		MAG	2.4	2.4		FX	MU	C	5.0	32A	4700	900	3K								IM		CO
JN2-2.5W		MAG	2.4	2.4		FX	MU	C	5.0	32A	4700	900	3K								IM		CO
JP2-0.2		MAG	2.4	2.5		FX	MU	C	5.3	3400	1600	220	200W								IM		CO
KLS2		KLA	2.6	2.6		FX	GC	C	5.0	9500	10K		2K				40					31	WG
LOU-2B		BWO	12.4	18.0		VT	HP	C	6.3	620	2000	12	60	2300	300	2K			8	6K	IM		WG
MAG2		MAG	9.4	9.5	2	FX	GC	P	3.0	2500	15K	10A	45K						15		3250		WG
OA2.0-4.0		BWO	2.0	4.0		VT	SE	C				10	10			2K	6				800		CO
PAS-2B		BWA	2.0	4.0		VT	HP	C	6.3	1700	200	7	1	2750	4	1K	20	4		11			CO
PKX2	M	KLO	8.5	10.0		MEC		C			9000	200	200W										WG
TWS2	M	TWA	1.6	2.6				C				1	3	550			25	9			400		
2E0	M	TWA	3.8	4.2		FX		C	6.3	800		50	5000	1200		1K	37	30		400	600		WG
2J30	X	MAG	2.9	2.9	20	FX	RA	P	6.3	1500	22K	30A	285K						15		1900		CO
2J31	X	MAG	2.8	2.9	20	FX	RA	P	6.3	1500	22K	30A	285K						15		1900		CO
2J32	X	MAG	2.8	2.8	20	FX	RA	P	6.3	1500	22K	30A	285K						15		1900		CO
2J33	X	MAG	2.7	2.8	20	FX	RA	P	6.3	1500	22K	30A	285K						15		1900		CO
2J34	X	MAG	2.7	2.7	20	FX	RA	P	6.3	1500	22K	30A	285K						15		1900		CO
2J36	X	MAG	9.0	9.2	20	FX	RA	P	6.3	1500	14K	12A	14K								2500		WG
2J42	X#	MAG	9.3	9.4	25	FX	SY	P	6.3	600	6000	5500	10K						15	1	IM		WG
2J42B	#	MAG	9.3	9.4	25	FX	SY	P	6.3	600	5700	5500	10K						15		IM		WG
2J42F		MAG	9.3	9.4	25	FX	SF	P	6.3	480	6000	5500	7K								IM		
2J42H	M	MAG	9.3	9.4	20	FX		P	6.3	520	6300	5500	7K						18	5	IM		WG

TYPE NUMBER	CODE	KIND	FREQUENCY		DUTY CYCLE	TUNING	MFR	OPERATION	E_f	I_f	MAXIMUM							TYPICAL					
			Min	Max							E_b	I_k	P_o	REFLECTOR COLLECTOR	E_{g_1}	HELIX VOLTAGE	GAIN	NF	PULL FACTOR	BAND WIDTH	MAG FIELD	CAVITY	COUPLING
			G_c	G_c	10^4				v	ma	v	ma	mw	v	v	v	db	db		Mc	gauss		
2J49	X	MAG	9.0	9.2	12	FX	WE	P	6.3	1000	16K	16A	50K						15		5400		WG
2J50	X	MAG	8.8	8.9	12	FX	WE	P	6.3	1000	16K	16A	50K						15		5400		WG
2J51	X	MAG	8.5	9.6	11	MEC	WE	P	6.3	1000	16K	16A	50K								IM		WG
2J51A	X#	MAG	8.5	9.6	12	MEC		P	6.3	1000	16K	16A	60K							18	IM		WG
2J52		MAG	3.3	3.4	20	MEC	RA	P	6.3	1500	15K	15A	70K								1400		
2J53		MAG	9.3	9.4	12	FX	WE	P	6.3	1000	16K	16A	40K								5400		WG
2J55	M	MAG	9.3	9.4	10	FX	RA	P	6.3	1000	16K	16A	50K						15		IM		WG
2J56	M	MAG	9.2	9.3	10	FX	RA	P	6.3	1000	16K	16A	50K						15		IM		WG
2J56A		MAG	9.2	9.3	10	FX	RA	P	6.3	1000	12K	12A	40K								IM		WG
2J66		MAG	2.8	2.9	20	MEC	RA	P	6.3	1500	20K	25A	150K								1700		
2J67		MAG	2.8	2.9	20	MEC	RA	P	6.3	1500	20K	25A	150K								1700		
2J68		MAG	2.7	2.8	20	MEC	RA	P	6.3	1500	20K	25A	150K								1700		
2J69		MAG	2.7	2.8	20	MEC	RA	P	6.3	1500	20K	25A	150K								1700		
2J70		MAG	3.0	3.1	20	FX	RA	P	6.3	1400	7500	15A	25K						13		IM		CO
2J71		MAG	3.2	3.2	20	FX	RA	P	6.3	1250	5000	5000	6K								IM		CO
2K22	M#	KLO	4.2	4.9		MEC	WE	C	6.3	4400	330	37	115	350						34		RI	CO
2K25	X	KLO	8.5	9.7		MEC	WE	C	6.3	4400	330	37	32	400						60		RI	CO
2K26	X*	KLO	6.2	7.1		MEC	WE	C	6.3	4400	330	35	100	350						45		RI	CO
2K28	X#	KLO	1.8	4.0		MEC	RA	C	6.3	660	330	45	100	500						20		RE	CO
2K28A	S*	KLO	1.8	4.0		MEC	RA	C	6.3	660	330	45	125	500						20		RE	CO
2K29	M#	KLO	3.4	4.0		MEC	WE	C	6.3	440	330	37	106	350						40		RI	CO
2K33	S*	KLO	22.0	25.0		MEC	RA	C	6.3	580	2300	9	40	500	100					40		R9	WG
2K39	*	KLO	7.5	10.3		MEC	SP	C	6.3	1000	1250	60	770	750	200					40		RI	CO
2K41	M*	KLO	2.7	3.3		MEC	SP	C	6.3	1000	1250	60	2750	750	200					17		RI	CO
2K42	*	KLO	3.3	4.2		MEC	SP	C	6.3	1000	1250	60	1500	750	200					30		RI	CO
2K43	*	KLO	4.2	5.7		MEC	SP	C	6.3	1000	1250	60	1050	750	200					50		RI	CO
2K44	M*	KLO	5.7	7.5		MEC	SP	C	6.3	1000	1250	60	1025	750	200					70		RI	CO
2K45	S	KLO	8.5	9.7		TH	WE	C	6.3	760	350	30	34	350						85		RI	CO
2K48	*	KLO	4.2	10.8		MEC	WE	C	6.3	700	1500	15	20	400						22		RE	CO
2K50	X*	KLO	23.5	24.5		TH	WE	C	6.3	755	330	28	10	150						125		RI	WG
2K54A	M	KLO	4.0	4.3		MEC		C	6.3	450	400	25	500	350								RI	CO
2K54B	M	KLO	3.8	4.1		MEC		C	6.3	450	400	25	500	350								RI	CO
2K54C	M	KLO	3.6	3.9		MEC		C	6.3	450	400	25	500	350								RI	CO
2K54DA		KLO	4.2	4.4		MEC	NE	C	6.3	450	250	12	50	160						35		RI	CO
2K56	M	KLO	3.8	4.5		MEC	WE	C	6.3	440	330	37	90	400						35		RI	CO

TYPE NUMBER	CODE	KIND	FREQUENCY		DUTY CYCLE	TUNING	MFR	OPERATION	E_f	I_f	MAXIMUM							TYPICAL					
			Min	Max							E_b	I_k	P_o	REFLECTOR COLLECTOR	E_{g_1}	HELIX VOLTAGE	GAIN	NF	PULL FACTOR	BAND WIDTH	MAG FIELD	CAVITY	COUPLING
			G_c	G_c	10^4				v	ma	v	ma	mw	v	v	v	db	db		Mc	gauss		
BA3-30		BWO	2.4	4.7		VT	MU	C	6.3	2300	250	50	200	1500							IM		CO
DA3		TWA	0.5	1.0		VT	HU	C	6.3	1100	450	2		1065		1K	30			150	250		CO
DHA3		TWA	0.5	1.0		VT	HU	C	6.3	750	450	1		1015		1K	33			150	100		CO
H03		BWO	3.8	7.0		VT	HU	C	7.0	800	500	13	1	3400		3K					800		CO
KRN3/1	S	KLO	9.6	9.9		MEC	EM	C	4.0	1300	1500	10	25	250			25					RE	WG
MAG3	X	MAG	9.3	9.4	1	FX		P	6.3	550	6100	7200	12K						15		IM		WG
OA3.7-5.9		BWO	3.5	5.9		VT	SE	C				10	50			2K	6				800		CO
PA3		TWA	2.0	4.0			HU	C	7.0	1200	300	25	1000	900		900	30				1000		WG
PA3		TWA	2.0	4.0	1K	VT	HU	P	7.0	1200	600	60	10W	1100		1K	30				1000		CO
PKX3	M	KLO	8.5	10.0		FX		C			9000	200	200W										WG
TWS3	M	TWA	2.7	4.1				C				1	3	550			25	10			500		
3K2500LX		KLA	1.0	1.2		MEC	EI	C	7.5	5800	7000	600	1K				28					3I	CO
3K2500SG		KLA	1.7	2.4		MEC	EI	C	7.5	5500	7000	600	1K				25					3I	CO
3K3000LQ		KLA	0.7	1.0		MEC	EI	C	5.0	31A	9000	750	3K				25					3I	CO
3K50000LA	S	KLA	0.4	0.6		MEC	EI	C	8.0	40A	20K	2500	12K				23					3I	CO
3K50000LF	S	KLA	0.6	0.7		MEC	EI	C	8.0	40A	20K	2500	12K				23					3I	CO
3K50000LQ	S	KLA	0.7	1.0		MEC	EI	C	8.0	40A	20K	2500	12K				23					3I	CO
3K210000LQ		KLA	0.8	1.0		MEC	EI	C	26.0	10A	30K	8000	75K				13			7		3E	WG
3KM3000LA		KLA	0.4	0.6		MEC	EI	C	5.0	31A	9K	750	2K				30					3I	CO
3KM3000LA		KLA	0.4	0.6	60	MEC	EI	P	5.0	31A	20K	2800	20K		15K		31					3I	CO
3KM4000LT		KLA	1.0	1.2		MEC	EI	P	7.5	5500	26K	4200	38K									3I	
3KM50000PA		KLA	0.2	0.4			EI	C	7.0	45A	20K	2500	20K									3I	CO
3KM50000PA		KLA	0.2	0.4			EI	P	7.0	45A	35K	5000	50K									3I	CO
BA4		BWA	12.0	18.0			HU	C	6.3	1200	250	10		2000		2K	30			20	1000		WG
DA4		TWA	4.0	8.0		VT	HU	C	6.3	1100	300	1		2500		2K	25			1K	400		CO
HA4		TWA	8.0	12.4		VT	HU	C	6.3	1200	600	2	10	1300	50	1K	30				400		CO
H04		BWO	12.4	18.0		VT	HU	C	7.0	1200	350	10	10	2200		2K					1000		WG
LA4-2		TWA	3.6	4.2			MU	C	6.3	400	100	120U	2	700		540	28	8		600			WG
LA4-250	S	TWA	3.6	4.2			MU	C	6.3	750	1600	5	200	1500		2K	31	24		600			WG
LB4-2		TWA	3.6	4.2			MU	C	6.3	1000	1150	26	2500	1150		1K	35	30		600			WG
OA4.0-8.0		BWO	4.0	8.0		VT	SE	C				5	10			2K	10				800		CO
PA4		TWA	2.0	4.0		VT	HU	C	7.0	1200	700	20	100	950	100	950	25				600		CO
PA4		TWA	2.0	4.0	1K	VT	HU	P	7.0	1200	700	50	1000	950	150	950	33				600		CO
PKX4	X	KLO	8.5	10.0		FX		C			8800	210	150W										WG
TL4		TWA	1.5	3.0		VT	TE	C	6.3	1000	850	70	12W	1300		1K	45			30	600		CO

NUMERICAL LISTING

TYPE NUMBER	CODE	KIND	FREQUENCY		DUTY CYCLE	TUNING	MFR	OPERATION	E_f	I_f	MAXIMUM							TYPICAL					
			Min	Max							E_b	I_k	P_o	REFLECTOR COLLECTOR	E_{g_1}	HELIX VOLTAGE	GAIN	NF	PULL FACTOR	BAND WIDTH	MAG FIELD	CAVITY	COUPLING
			G_c	G_c	10^4				v	ma	v	ma	mw	v	v	v	db	db		Mc	gauss		
TWC4	M	TWA	5.0	8.2				C				10	2000	2500			40				600		
4FK1		KLO	68.0	80.0		FX	EB						100										
4FK2		KLO	68.0	80.0		FX	EB						500										
4J30	M	MAG	1.2	1.2	9	FX	WE	P	23.5	2200	27K	46A	600K										
4J31	X	MAG	2.9	2.9	10	FX	RA	P	16.0	3100	30K	70A	685K						15		2700		CO
4J32	X	MAG	2.8	2.9	10	FX	RA	P	16.0	3100	30K	70A	685K						15		2700		CO
4J33	X	MAG	2.8	2.8	10	FX	RA	P	16.0	3100	30K	70A	685K						15		2700		CO
4J34	X	MAG	2.7	2.8	10	FX	RA	P	16.0	3100	30K	70A	685K						15		2700		CO
4J35	X	MAG	2.7	2.7	10	FX	RA	P	16.0	3100	30K	70A	685K						15		2700		CO
4J36		MAG	3.6	3.7	10	FX	RA	P	16.0	3100	30K	70A	850K						10		2500		WG
4J37		MAG	3.6	3.6	10	FX	RA	P	16.0	3100	30K	70A	850K						10		2500		WG
4J38		MAG	3.6	3.6	10	FX	RA	P	16.0	3100	30K	70A	850K						10		2500		WG
4J39		MAG	3.5	3.6	10	FX	RA	P	16.0	3100	30K	70A	850K						10		2500		WG
4J40		MAG	3.4	3.5	10	FX	RA	P	16.0	3100	30K	70A	850K						10		2500		WG
4J41		MAG	3.4	3.4	10	FX	RA	P	16.0	3100	30K	70A	850K						10		2500		WG
4J43	X	MAG	3.0	3.0	10	FX	RA	P	16.0	3100	30K	70A	900K								2700		CO
4J44	X	MAG	3.0	3.0	10	FX	RA	P	16.0	3100	30K	70A	900K								2700		CO
4J50	X#	MAG	9.3	9.4	20	FX	WE	P	13.8	3350	23K	28A	250K						15	3	IM		WG
4J50A	X	MAG	9.4	9.4	10	FX		P	13.8	3200	22K	28A	250K						15	2	IM		WG
4J52	X	MAG	9.3	9.4	10	FX	BT	P	12.6	2100	15K	15A	80K						15		IM		WG
4J52A	X#	MAG	9.4	9.4	10	FX		P	12.6	2300	15K	15A	90K						13	2	IM		WG
4J52F		MAG	9.3	9.4	10	FX	SF	P	12.6	2000	16K	16A	80K								IM		
4J53	X	MAG	2.8	2.8	10	FX	RA	P	16.0	3100	30K	70A	500K								2150		CO
4J54	#	MAG	6.8	6.9	10	FX	RA	P	12.6	3750	25K	35A	250K						15		IM		WG
4J55	#	MAG	6.7	6.8	10	FX	RA	P	12.6	3750	25K	35A	250K						15		IM		WG
4J56	#	MAG	6.6	6.7	10	FX	RA	P	12.6	3750	25K	35A	250K						15		IM		WG
4J57	M#	MAG	6.5	6.6	10	FX	RA	P	12.6	3750	25K	35A	250K						15		IM		WG
4J58	M#	MAG	6.4	6.5	10	FX	RA	P	12.6	3750	25K	35A	250K						15		IM		WG
4J59	M#	MAG	6.3	6.4	10	FX	RA	P	12.6	3750	25K	35A	250K						15		IM		WG
4J78	X#	MAG	9.0	9.2	20	FX	WE	P	13.8	3350	23K	30A	240K						15	3	IM		WG
4K50000LQ		KLA	0.7	1.0		MEC	EI	C	8.0	40A	20K	2600	11K				58			9		4I	CO
4KM3000LQ		KLA	0.4	0.6		FX	EI	C	5.0	32A	10K	750	1050									4I	
4KM3000LR		KLA	0.6	1.0		FX	EI	C	5.0	32A	10K	750	1050									4I	
4KM50000LA		KLA	0.4	0.6			EI	C	7.5	40A	17K	1800	10K		500		55					4I	CO
4KM50000LA3		KLA	0.4	0.6		MEC	EI	C	7.5	40A	20K	2500	13K		500		50					4E	CO

TYPE NUMBER	CODE	KIND	FREQUENCY		DUTY CYCLE	TUNING	MFR	OPERATION	E_f	I_f	MAXIMUM							TYPICAL					
			Min	Max							E_b	I_k	P_o	REFLECTOR COLLECTOR	E_{g_1}	HELIX VOLTAGE	GAIN	NF	PULL FACTOR	BAND WIDTH	MAG FIELD	CAVITY	COUPLING
			G_c	G_c	10^4				v	ma	v	ma	mw	v	v	v	db	db		Mc	$gauss$		
4KM50000LQ		KLA	0.6	1.0		MEC	EI	C	7.5	40A	20K	2500	10K		500		50					4I	
4KM50000LR		KLA	0.8	1.0		MEC	EI	C	7.5	40A	20K	2500	11K		500		30			7		4E	CO
4KM50000SG		KLA	1.7	2.4		MEC	EI	C	7.5	40A	18K	2000	11K				44			3		4I	WG
4KM70000LA		KLA	0.4	0.6		MEC	EI	C	7.5	40A	23K	2750	22K		500		50					4E	CO
4KM70000LQ		KLA	0.6	1.0		MEC	EI	C	7.5	40A	23K	2750	26K		500		50					4E	CO
4KM170,000LA		KLA	0.3	0.5			EI	C	11.0	47A	35K	5500	75K				50					4I	
4KM170,000LA		KLA	0.3	0.5	45		EI	P	11.0	47A	55K	11A	200K				50					4I	
4KMP10000LF		KLA	0.6	0.6	200	MEC	EI	P	11.0	22A	70K	22A	200K				57					4I	
4KMP240000LA		KLA	0.4	0.4	600	MEC	EI	P	7.5	95A	110K	36A	1M		500		48					4E	WG
4KP40000SQ		KLA	2.8	2.8	10	FX	EI	P	11.0	20A	250K	125A	10M				45					4I	WG
4W72A		TWA	3.7	4.2			NE						1500										
4W75		TWA	3.6	4.2		VT	NE	C	6.3	1000	1800	15	2000	3050	50	3K	23				IM		WG
4W76		TWA	3.6	4.2		VT	NE	C	6.3	1200	2400	35	10W	3240	40	3K	30	27			IM		WG
4W85	M	TWA	3.7	4.2		VT		C	6.3	1500	820	5	200	1200	3	1K	24				400		WG
4W86	M	TWA	3.7	4.2		VT		C	6.3	1400	2000	15	800	2150	22	2K	11				400		WG
4W86A	M	TWA	3.7	4.2		VT		C	6.3	1500	1700	15	1500	2150	10	2K	12				400		WG
HA5		TWA	1.0	2.0		VT	HU	C	6.3	1300	150	4	10	370	5	220	30				400		CO
MAG5		MAG	9.4	9.5	10	FX	GC	P	3.0	2300	17K	12A	60K						15		3800		WG
OA5.2-8.3		BWO	5.2	8.3		VT	SE	C				6	20			2K	6				800		CO
PA5		TWA	8.0	12.4		VT	HU	C	7.0	1200	750	10	50	2300	50	2K	23				1000		CO
PA5		TWA	8.0	12.4	1K	VT	HU	P	7.0	1200	750	50	300	2300	250	2K	30				1000		CO
PKX5	M	KLO	12.8	14.8		FX		C			3600	50	7000										WG
5J26	M	MAG	1.2	1.4	25	MEC	WE	P	23.5	2200	34K	55A	550K						5	1	1400		CO
5K210000LQ		KLA	0.8	1.0		MEC	EI	C	15.0	18A	30K	10A	81K				45			10		5E	WG
5M36A		MAG	5.3	5.3	7	FX	TO	P	6.3	3250	23K	40A	320K								3000		WG
5V55A		KLO	4.8	5.1		MEC	KK	C	6.3	450	300	30	100	260								RI	CO
5V55B		KLO	4.5	4.8		MEC	KK	C	6.3	450	300	30	100	260								RI	CO
5V55C		KLO	4.2	4.5		MEC	KK	C	6.3	450	300	30	100	260								RI	CO
HA6		TWA	4.0	8.0		VT	HU	C	7.0	1300	700	15	1000	1500		1K	30				1100		CO
JPT6-01		MAG	5.8	7.3		MEC	MU	C	6.3	1300	950	50	10W						20		IM		WG
KR6/1	S	KLO	3.4	3.6		FX	EM	C	4.0	1300	300	40	150	140						30		RE	CO
KR6/2	S	KLO	3.2	3.2		FX	EM	C	4.0	1300	300	40	150	140						30		RE	CO
KR6/3	S	KLO	2.9	3.1		FX	EM	C	4.0	1300	300	40	150	140						30		RE	CO
LA6-3		TWA	5.9	7.1			MU	C	6.3	400	400	210U	3	850		750	28	8		1K			WG
LA6-200		TWA	5.9	7.1			MU	C	6.3	1000	1300	6	200	1300		1K	38	24		1K			WG

TYPE NUMBER	CODE	KIND	FREQUENCY		DUTY CYCLE	TUNING	MFR	OPERATION	E_f	I_f	MAXIMUM							TYPICAL					
			Min	Max							E_b	I_k	P_o	REFLECTOR COLLECTOR	E_{g_1}	HELIX VOLTAGE	GAIN	NF	PULL FACTOR	BAND WIDTH	MAG FIELD	CAVITY	COUPLING
			G_c	G_c	10^4				v	ma	v	ma	mw	v	v	v	db	db		Mc	gauss		
LB6-12		TWA	5.0	7.8		VT	MU	C	6.3	1400	3000	45	5000	1750		3K	37						WG
OC6-11		BWO	6.0	11.0		VT	SE	C				5	10			2K	6				800		CO
OC6-12		BWO	6.5	12.0		VT	SE	C				5	10			2K	4				800		CO
OE6-11		BWO	7.0	11.0		VT	SE	C				10	30			2K	4				1000		CO
OE6-12		BWO	7.3	10.3		VT	SE	C				10	50			1K	4				1000		CO
PA6		TWA	2.0	4.0		VT	HU	C	7.0	1200	600	20	100	1000	100	1K	25				1M		CO
PA6		TWA	2.0	4.0	1K	VT	HU	P	7.0	1200	600	50	1000	1000	150	1K	30				1M		CO
PKX6	M	KLA	8.5	10.0		FX		C			8800	210	200W				8						WG
TK6		KLO	6.3	7.7		MEC	TE	C	6.3	410	330	30	190	400	50					40		R1	CO
TL6		TWA	3.4	4.5			TE	C	6.3	1000	1000	33	6500	1600		1K	38				550		WG
6BL6	X#	KLO	1.6	6.5		MEC	SY	C	6.3	750	325	28	250	220						6		RE	
6BL6A	*	KLO	1.6	6.5		MEC		C	6.3	750	350	35	250	750	500					6		RE	CO
6BM6	X#	KLO	0.6	3.8		MEC	SY	C	6.3	650	325	18	175	250						6		RE	
6BM6A	S*	KLO	0.6	3.8		MEC	SY	C	6.3	650	325	18	175	250						6		RE	
6FK1		KLO	48.0	52.0		FX	EB						1000										
6K50000LQ		KLA	0.7	1.0		MEC	EI	C	8.0	40A	20K	2600	10K				50			20		61	CO
6TFK2		KLO	48.0	52.0		MEC	EB						1000										
6V26		KLO	5.8	6.5		MEC	HI	C	6.3	440	330	35	100	350						40		RI	CO
6V26A	X	KLO	6.1	6.5		MEC		C	6.3	450	300	30	100	190						28		R1	CO
6V26B	S	KLO	5.8	6.2		MEC	KK	C	6.3	450	300	30	100	190						28		R1	CO
6V431		KLO	5.9	6.2		MEC	TO	C	6.3	800	750	72	1200	400						45		RI	WG
6V432		KLO	6.1	6.4		MEC	TO	C	6.3	800	750	72	1200	400						45		RI	WG
6V433		KLO	6.4	6.6		MEC	TO	C	6.3	800	750	72	1200	400						45		RI	WG
6W50		TWA	5.8	6.4		VT	NE	C	6.3	1100	2100	30	10W	3350		3K	30	27			IM		WG
6W85		TWA	5.0	6.8			HI	C	6.3	300	1000	3	80	1100		1K	30				600		
6W86		TWA	3.0	6.8			HI	C	6.3	1000	2500	35	5000	2600	50	2K	23				700		
6W87		TWA	5.0	6.8			HI	C	6.3	400	400	300U	2	1100		800	25	11			600		
HA7		TWA	0.5	1.0		VT	HU	C	6.3	1400	90	4	10	270	50	120	30				300		CO
KS7-85		KLO	6.2	7.1		MEC	MU	C	6.3	500	330	35	100	350						40		R1	CO
KS7-85A		KLO	6.2	7.4		MEC	MU	C	6.3	500	330	35	110	350						49		R1	CO
KS7-1000C		KLO	6.9	7.1		MEC	MU	C	6.3	800	800	80	1100	1000						28		RI	WG
MAG7	#	MAG	9.2	10.0	10	FX	GC	P	2.0	10A	16K	15A	80K						15		1M		WG
OC7-13		BWO	8.2	12.4		VT	SE	C				5	10			2K	3				800		WG
OD7-13		BWO	8.2	12.4			SE	C				5	10			2K	3				800		WG
PA7	S	TWA	4.0	8.0		VT	HU	C	7.0	1200	600	20	100	1600	100	2K	25				1000		CO

TYPE NUMBER	CODE	KIND	FREQUENCY		DUTY CYCLE	TUNING	MFR	OPERATION	E_f	I_f	MAXIMUM							TYPICAL					
			Min	Max							E_b	I_k	P_o	REFLECTOR COLLECTOR	E_{g_1}	HELIX VOLTAGE	GAIN	NF	PULL FACTOR	BAND WIDTH	MAG FIELD	CAVITY	COUPLING
			G_c	G_c	10^4				v	ma	v	ma	mw	v	v	v	db	db		Mc	gauss		
PA7	S	TWA	4.0	8.0	1K	VT	HU	P	7.0	1200	600	60	1000	1600	150	2K	30						CO
PKX7	M	KLA	12.8	14.8		FX		C			3600	50	7000				8						WG
SRL7C		KLO	1.8	2.1		MEC	SP	C	6.3	2000	1000	220	10W	1000						20		RI	CO
SRL7F		KLO	1.7	1.9		MEC	SP	C	6.3	2000	1000	220	10W	1000	50					20		RI	CO
SRL7FC		KLO	1.8	1.9		MEC	SP	C	6.3	2000	1000	200	5000	1000								RI	CO
SRL7G		KLO	1.9	2.2		MEC	SP	C	6.3	2000	1000	220	10W	1000	50					20		RI	CO
SRL7GC		KLO	1.9	2.1		MEC	SP	C	6.3	2000	1000	200	5000	1000								RI	CO
SRL7H		KLO	2.2	2.4		MEC	SP	C	6.3	2000	1000	220	10W	1000	50					20		RI	CO
TK7		KLO	3.5	4.3		MEC	TE	C	6.3	1550	750	82	2700	860						20		RI	CO
W7/1D	S	TWA	3.6	4.6			ST	C	6.3	850	850	6	150	1650		2K	24			1K	250		WG
W7/2D	S	TWA	3.6	4.2			ST	C	6.3	1000	2000	18	2500	3500		3K	20			1K	350		WG
W7/3G		TWA	3.6	5.0			ST	C	6.3	850	2600	43	8000	3500		3K	26	25		1K	500		WG
W7/4G		TWA	3.6	5.0			ST	C	6.3	850	2600	43	8000	3500		3K	42	25		1K	500		WG
7V20D	S	KLO	6.6	6.9		MEC	KK	C	6.3	800	750	80	700	1000								RI	WG
7V26		KLO	6.4	7.2		MEC	HI	C	6.3	440	330	35	100	350						45		RI	CO
7V26A	X	KLO	6.8	7.2		MEC		C	6.3	450	300	30	100	190						28		RI	CO
7V26B	X	KLO	6.4	6.9		MEC		C	6.3	450	300	30	100	190						28		RI	CO
7V39		KLO	5.7	8.3		MEC	HI	C	6.3	1000	1250	60	600	1000						30		RI	CO
7V40	M	KLO	7.0	7.8		MEC		C	6.3	450	300	30	60	200						28		RI	CO
7V43D		KLO	6.6	6.9		MEC	TO	C	6.3	800	750	72	1200	400						45		RI	WG
7V434		KLO	6.6	6.9		MEC	TO	C	6.3	800	750	72	1200	400						45		RI	WG
7V435		KLO	6.8	7.2		MEC	TO	C	6.3	800	750	72	1200	400						45		RI	WG
7V436		KLO	7.1	7.4		MEC	TO	C	6.3	800	750	72	1200	400						45		RI	WG
7W25		TWA	6.4	7.2			TO	C	6.3	600	2100	25	5000	2700	15	3K	30				IM		WG
7W86		TWA	6.0	7.0			HI	C	6.3	1000	2600	30	5000	2700	50	3K	25				700		
HA8		TWA	0.5	1.0		VT	HU	C	7.0	2200	500	60	1000	500	200	500	30				560		CO
JP8-02		MAG	8.8	8.8	4K	FX	MU	P	6.3	1100	1000	120	25W						15		IM		WG
JPG8-01	S	MAG	8.6	9.2		MEC	MU	C	6.3	1100	920	50	10W						20		IM		WG
JPG8-01B	S	MAG	8.0	8.6		MEC	MU	C	6.3	1100	920	50	10W						20		IM		WG
JPT8-01	S	MAG	8.6	9.2		MEC	MU	C	6.3	1100	920	50	10W						20		IM		WG
JPT8-01B	S	MAG	8.0	8.6		MEC	MU	C	6.3	1100	920	50	10W						20		IM		WG
MAG8	S	MAG	9.2	9.6	40	FX	GC	P	6.3	200	1050	100	2000						30		2450		WG
MG8		MAG	2.4	2.4		FX	TE	C	4.5	2500	1500	340	200W								1500		CO
PA8	S	TWA	4.0	8.0		VT	HU	C	7.0	1200	600	20	100	1600	150	2K	25				IM		CO
PA8	S	TWA	4.0	8.0	1K	VT	HU	P	7.0	1200	600	60	1000	1600	150	2K	30				IM		CO

TYPE NUMBER	CODE	KIND	FREQUENCY		DUTY CYCLE	TUNING	MFR	OPERATION	E_f	I_f	MAXIMUM							TYPICAL					
			Min	Max							E_b	I_k	P_o	REFLECTOR COLLECTOR	E_{g_1}	HELIX VOLTAGE	GAIN	NF	PULL FACTOR	BAND WIDTH	MAG FIELD	CAVITY	COUPLING
			G_c	G_c	10^4				v	ma	v	ma	mw	v	v	v	db	db		Mc	gauss		
PKX8	M	KLA	8.5	10.0		MEC		C			8800	210	200W				9						WG
TK-8		KLO	3.7	4.3		MEC	TE	C	6.3	380	330	30	250	400						60		RI	CO
8FK1		KLO	33.0	37.0		FX	EB	C	6.3	2300	4000	150	15W		1K						IM	IN	WG
8MA6		MAG	34.4	35.4	4	FX	EB	P	12.0	4000	22K	25A	100K						45		IM		WG
8RK4		KLO	34.5	35.5		MEC	EB	C	6.3	1400	2500	15	30	550	20					60		RI	WG
8RK8		KLO	34.5	35.5		MEC	EB	C	6.3	1400	2500	15	250	550						60		RI	WG
8TFK2		KLO	33.0	37.0		MEC	EB	C	6.3	2300	4000	150	10W		1K						IM	IN	WG
8TFK9		KLO	33.0	37.0		MEC	EB	C	6.3	2300	4000	150	5000		1K						IM	IN	WG
8V26		KLO	7.0	7.8		MEC	HI	C	6.3	440	330	35	100	350						40		RI	CO
8V43		KLO	7.4	7.7		MEC	TO	C	6.3	800	750	72	1200	400						45		R1	WG
8V437		KLO	7.4	7.7		MEC	TO	C	6.3	800	750	72	1200	400						45		R1	WG
8W20		TWA	7.3	7.8			TO	C	6.3	450	150	500U		1200		1K	23	10			700		WG
8W22A		TWA	7.3	7.8			TO	C	6.3	600		30	2000	2600	30	3K	33				700		WG
8W23		TWA	7.3	7.8			TO	C	6.3	600	2100	25	3000	2600	15	3K	32				IM		WG
8W24		TWA	7.3	7.8			TO	C	6.3	600		30	4000	2800	30	3K	32				700		WG
8W75		TWA	6.0	7.5		VT	NE	C	6.3	1000	1290	14	2000	3200	50	3K	30				IM		WG
8W76		TWA	6.0	7.5		VT	NE	C	6.3	1000	2450	26	5000	3500	40	3K	30	23			1M		WG
8W86		TWA	6.5	7.8			HI	C	6.3	1000	2500	35	3000	2600	50	2K	33				800		
BA9-20	S	BWO	7.0	11.5		VT	MU	C	6.3	1700	350	35	75		250	2K					IM		WG
HA9		TWA	8.0	11.0		VT	HU	C	6.3	1200	1800	20	500	2400	100	2K	27				1000		CO
H09		BWO	1.0	2.0			HU	C	6.3	2500	200	25	10	2800		3K					800		CO
JP9-01	M	MAG	9.2	9.6		FX	MU	C	6.3	1100	920	50	10W						15		IM		WG
JP9-2.5		MAG	9.3	9.5	10	FX	MU	P	6.3	500	3800	3000	3K						18		IM		WG
JP9-7	S#	MAG	9.3	9.4	25	FX	MU	P	6.3	600	6000	5500	7K						15		IM		WG
JP9-7A	X	MAG	9.2	9.3	25	FX		P	6.3	600	6000	5500	7K						15		IM		WG
JP9-7B		MAG	9.5	9.6	25	FX	MU	P	6.3	600	6000	5500	7K						15		IM		WG
JP9-7D	M#	MAG	9.3	9.4	20	FX		P	6.3	600	6000	6000	9K						15		1M		WG
JP9-15	X#	MAG	9.3	9.4	10	FX		P	6.3	600	8000	8000	20K						18		IM		WG
JP9-50	#	MAG	9.2	9.3	10	FX	MU	P	6.3	2100	13K	12A	50K						15		IM		WG
JP9-75		MAG	9.3	9.4	20	FX	MU	P	10.0	2850	16K	18A	75K						15		IM		WG
JP9-80	S#	MAG	9.3	9.4	10	FX	MU	P	12.6	2100	15K	15A	80K						15		IM		WG
JP9-80A	S	MAG	9.2	9.3	10	FX	MU	P	12.6	2100	15K	15A	80K						15		IM		WG
JP9-180		MAG	9.3	9.4	5	FX	MU	P	12.6	2250	24K	25A	180K						15		IM		WG
JP9-250	#	MAG	9.3	9.4	10	FX	MU	P	13.8	3250	23K	27A	250K						14		IM		WG
JP9-250A	#	MAG	9.0	9.2	10	FX	MU	P	13.8	3250	23K	27A	250K						14		IM		WG

TYPE NUMBER	CODE	KIND	FREQUENCY		DUTY CYCLE	TUNING	MFR	OPERATION	E_f	I_f	MAXIMUM							TYPICAL					
			Min	Max							E_b	I_k	P_o	REFLECTOR COLLECTOR	E_{g_1}	HELIX VOLTAGE	GAIN	NF	PULL FACTOR	BAND WIDTH	MAG FIELD	CAVITY	COUPLING
			G_c	G_c	10^4				v	ma	v	ma	mw	v	v	v	db	db		Mc	$gauss$		
JP9-250B	#	MAG	8.8	9.0	10	FX	MU	P	13.8	3250	23K	27A	250K						14		IM		WG
JP9-250C	#	MAG	8.9	9.0	10	FX	MU	P	13.8	3250	23K	27A	250K						14		IM		WG
JP9-250D	#	MAG	8.7	8.8	10	FX	MU	P	13.8	3250	23K	27A	250K						14		IM		WG
JP9-250E	#	MAG	8.5	8.7	10	FX	MU	P	13.8	3250	23K	27A	250K						14		IM		WG
JPG9-01	S#	MAG	9.2	9.6		MEC	MU	C	6.3	1100	920	50	10W						20		IM		WG
JPG9-02	S#	MAG	9.2	9.6	5	MEC	MU	P	6.3	1100	1150	120	25W							20	IM		WG
JPT9-01	S#	MAG	9.2	9.6		MEC	MU	C	6.3	1100	920	50	10W						20		IM		WG
JPT9-02	S#	MAG	9.2	9.6	5	MEC	MU	P	6.3	1100	1150	120	25W							20	IM		WG
JPT9-60	#	MAG	8.5	9.6	11	MEC	MU	P	6.3	1000	16K	16A	63K						10		IM		WG
KB9-2		KLM	9.3	9.4		FX	MU	C	7.0	2000	1600	45	2000							30		5I	WG
KB9-150W		KLM	8.6	10.0		MEC	MU	C	6.3	800	10K	250	200W	10K	250							2I	WG
KC9-250W		KLM	9.2	9.5	10	MEC	MU	P	6.3	4000	64K	16A	250K				50			100	IM	6I	WG
KS9-20	S#	KLO	8.7	9.5		MEC	MU	C	6.3	600	330	32	25	400						40		RI	CO
KS9-20A	S#	KLO	8.5	9.7		MEC	MU	C	6.3	600	330	37	35	400						40		RI	CO
KS9-30		KLO	8.5	9.6		MEC	MU	C	6.3	500	350	52	37	500						41		RI	WG
KS9-40		KLO	9.0	9.5		MEC	MU	C	6.3	700	350	40	40	400						30		RI	WG
KT9-150W		KLO	8.6	10.0		MEC	MU	C	6.3	800	10K	250	180W	10K	250							2I	WG
LA9-3	S	TWA	7.0	11.5			MU	C	6.3	500	400	680U	6	1500		1K	27	18		4K			WG
PA9		TWA	8.0	11.0	300		HU	P	6.3	1400	3000	50	1000	2600		3K	30				IM		CO
PKX9	M	KLO	8.5	10.0		MEC		C			9000	200	200W										WG
SAC9G		KLA	5.0	5.0		MEC	SP	C	6.3	800	1000	175	9000		100							3I	CO
SAC9H		KLA	5.0	5.1		MEC	SP	C	6.3	800	1000	175	9000		100							3I	CO
W9/1E		TWA	2.5	4.1			ST	C	6.3	750	500	5	100	650		500	28			2K	600		CO
G10		TWA	2.0	4.0		VT	GL	C	6.3	700	400	4	10	450	50	450	30				250		CO
HA10		TWA	8.2	12.4		VT	HU	C	7.0	1200	800	8	100	2300		2K	25				1000		CO
H010		BWO	3.7	5.9		VT	HU	C	7.0	1300	300	9	1	2000		2K					1000		CO
MCM-10		MAG	5.5	5.6	3	FX	ME	P			7500	4000	10K										
MXM-10		MAG	9.4	9.4	4	FX	ME	P			2800	1500	800W										
OA10.0-15.5		BWO	10.0	15.5			SE	C				5	10			2K	3				800		WG
PA10		TWA	2.0	4.0	1K	VT	HU	P	7.0	1200	700	60	10W	1100		1K	30				IM		CO
PKX10	M	KLO	8.5	10.0		FX		C			4500	75	20W										WG
W10/1D		TWA	2.3	3.6			ST	C	6.3	850	900	6	130	2000		2K	24				250		WG
W10/2D		TWA	2.6	3.6			ST	C	6.3	850	1500	30	5000	3250		3K	22			1K	350		WG
G11		TWA	2.0	4.0		VT	GL	C	7.0	800	400	25	1000	1050		950	34	12			500		CO
H011		BWO	5.2	8.3		VT	HU	C	6.3	1400	500	8	1	2000		2K					1000		CO

TYPE NUMBER	CODE	KIND	FREQUENCY		DUTY CYCLE	TUNING	MFR	OPERATION	E_f	I_f	MAXIMUM							TYPICAL					
			Min	Max							E_b	I_k	P_o	REFLECTOR COLLECTOR	E_{g_1}	HELIX VOLTAGE	GAIN	NF	PULL FACTOR	BAND WIOTH	MAG FIELD	CAVITY	COUPLING
			G_c	G_c	10^4				v	ma	v	ma	mw	v	v	v	db	db		Mc	gauss		
MCM-11		MAG	5.4	5.9	20	MEC	ME	P			1300	800	100W										
MXM-11		MAG	9.0	9.5	20	MEC	ME	P				800	100W										
SMC11A		KLM	4.6	4.7		MEC	SP	C	6.3	1100	1000	35	400				6					1N	CO
SMC11B		KLM	4.9	4.9		MEC	SP	C	6.3	1100	1000	35	400				6					IN	CO
SMC11C		KLM	5.0	5.0		MEC	SP	C	6.3	1100	1000	35	400				6					1N	CO
SMC11D		KLM	5.0	5.0		MEC	SP	C	6.3	1100	1000	35	400				6					1N	CO
SMC11F		KLM	4.9	5.0		MEC	SP	C	6.3	1100	1000	35	400				6					IN	CO
SMC11G		KLM	4.8	4.8		MEC	SP	C	6.3	1100	1000	35	400				6					1N	CO
SMC11I		KLM	4.5	4.6		MEC	SP	C	6.3	1100	1000	35	400				6					IN	CO
SMC11J		KLM	4.6	4.6		MEC	SP	C	6.3	1100	1000	35	400				6					1N	CO
SMC11L		KLM	4.8	4.9		MEC	SP	C	6.3	1100	1000	35	400				6					1N	CO
SMC11M		KLM	4.7	4.7		MEC	SP	C	6.3	1100	1000	35	400				6					1N	CO
SMC11N		KLM	5.6	5.7		MEC	SP	C	6.3	1100	1000	35	400				6					1N	CO
SMC11S		KLM	4.9	4.9		MEC	SP	C	6.3	1100	1000	35	400				6					IN	CO
SY11		KLA	8.7	9.7		FX	FE	C	5.7	9500	14K	850	2K				14					2I	WG
SZ11		KLO	8.7	9.7		FX	FE	C	5.7	9500	11K	560	650W					14	15		IM	2I	WG
11W17		TWA	10.7	11.7		VT	NE	C	6.3	1000	1070	8	700	2500	20	2K	30				1M		WG
G12		TWA	2.0	4.0		VT	GL	C	7.0	800	400	35	1000	950	100	950	34				500		CO
MCM-12		MAG	5.4	5.9	20	MEC	ME	P			2000	1100	400W										
MXK-12		KLO	8.5	10.0		MEC	ME	C			300		40	200									WG
MXM-12		MAG	9.4	9.4	4	FX	ME	P			3700	4330	4K										
OA12-18		BWO	12.4	18.0			SE	C				7	5			2K	4				800		WG
X12		KLO	12.4	18.0		MEC	VA	C	6.3	450	625	60	300	275						65		RI	WG
12FK1		KLO	21.0	25.0		FX	EB	C	6.3	2300	4000	150	10W		1K						IM	IN	WG
12RK3	#	KLO	21.0	25.0		MEC	EB	C			3000		30									RI	WG
12RK4	#	KLO	21.0	25.0		MEC	EB	C			3000		500									RI	WG
12TFK2		KLO	21.0	25.0		MEC	EB	C	6.3	2300	4000	150	8000		1K						IM	IN	WG
G13		TWA	2.0	4.0		VT	GL	C	6.3	750		750U		2300		2K	28			600	100		CO
HO13		BWO	4.0	8.0			HU	C	6.3	1400	300	12	1	2400		2K					1000		CO
MCM-13		MAG	5.4	5.9	20	MEC	ME	P			2800	1900	1K										
MXM-13		MAG	8.5	8.9	20	MEC	ME	P			1325	900	100W										
HA14		TWA	1.0	2.0		VT	HU	C	6.3	700	100	2		190		190	25	11			1000		CO
HO14		BWO	8.2	12.4		VT	HU	C	6.3	1200	350	12	1	2000		2K					1000		CO
MCM-14		MAG	5.4	5.9	20	MEC	ME	P			2200	1200	400W										
MXM-14		MAG	8.9	9.6	20	MEC	ME	P			1225	900	100W										

NUMERICAL LISTING

TYPE NUMBER	CODE	KIND	FREQUENCY		DUTY CYCLE	TUNING	MFR	OPERATION	E_f	I_f	MAXIMUM							TYPICAL					
			Min	Max							E_b	I_k	P_o	REFLECTOR COLLECTOR	E_{g_1}	HELIX VOLTAGE	GAIN	NF	PULL FACTOR	BAND WIDTH	MAG FIELD	CAVITY	COUPLING
			G_c	G_c	10^4				v	ma	v	ma	mw	v	v	v	db	db		Mc	gauss		
T15C1C	#	BWO	4.8	5.7			TU	C	6.3	1850	1900	20	100		50	300							CO
T15C2C	#	BWO	4.0	7.0			TU	C	6.3		2100		100		50								CO
T15H1C	#	BWO	7.0	11.0			TU	C	6.3		2100		100		50								CO
T15S1C	#	BWO	3.0	4.5			TU	C	6.3		2100		100		50								CO
T15X1C	#	BWO	8.0	12.0			TU	C	6.3		2100		100		50								CO
BA16-10	S	BWO	11.0	18.0		VT	MU	C	6.3	1500	500	30	35			2K					1M		WG
HA16		TWM	8.8				HU	C	7.0	1200	550	25	2	1200		1K	5				600		CO
JP16-40		MAG	16.0	17.0	10	FX	MU	P	6.3	2200	12K	15A	48K						25		1M		WG
LA16-2	S	TWA	11.5	18.0			MU	C	6.3	400	350	400U	3	1850		2K	20	20		6K			WG
HA17		TWA	1.0	2.0		VT	HU	C	6.3	700	100	2	3	200		200	25	15			1000		CO
H017		BWO	7.0	11.0		VT	HU	C	6.3	1200	500	10	1	2000		2K					1000		CO
SRL17		KLO	0.8	1.0		MEC	SP	C	6.3	1500	1000	90	3000	1500	200					9		R1	CO
HA18		TWA	1.0	2.0			HU	C	7.0	1400	550	65	1000	850		850	30				1000		CO
H018		BWO	2.0	4.0		VT	HU	C	6.3	2000	300	15	1	3400		3K					760		CO
HA19		TWA	1.6	2.6			HU	C	6.3	800	120	2	1	500		200	25	15			1000		CO
H019		BWO	12.0	18.0		VT	HU	C	7.0	800	600	10	1	2000		2K					1000		WG
MXK-19		KLO	8.5	10.0		MEC	ME	C			300		35	200									
SAC19		KLA	5.8	6.4		MEC	SP	C	6.3	2000	625	160	8000				10			25		2I	WG
G20		TWA	4.0	8.0		VT	GL	C	6.3	750	550	2	10	700		700	30				275		CO
HA20		TWA	8.0	11.0		VT	HU	C	6.3	1200	450	2	10	1300	50	1K	30				IM		CO
H020		BWO	3.8	7.0			HU	C	6.3	1400	300	12	10	2600		3K					1000		CO
MG20		MAG	5.8	5.8		FX	TE	C	3.5	3000	1100	120	40W								2400		CO
G21		TWA	4.0	8.0		VT	GL	C	7.0	750	500	20	1000	1400		1K	32				750		CO
HA21		TWA	8.2	11.0			HU	C					1000				30						CO
H021		BWO	4.0	8.0			HU	C	6.3	1400	300	12	10	2400		2K					1000		CO
MA21A	#	MAG	34.2	34.7	4	MEC	MA	P	12.6	3000	13K	20A	40K								IM		
MA21/C	#	MAG	35.0	35.5	4	MEC	MA	P	12.6	3000	13K	20A	40K						40	10	IM		WG
SZ21		KLO	8.7	10.2		FX	FE	C	6.0	2300	8000	40	20W						1	2		2I	WG
HA22		TWA	1.6	2.6		VT	HU	C	6.3	700	400	4	10	500	50	500	30				300		CO
H022		BWO	8.2	12.4			HU	C	6.3	1200	300	12	3	2000		2K					IM		CO
HA23		TWA	8.2	11.0		VT	HU	C	6.3	850	450	2		1800		1K	25	10			900		CO
HA24		TWA	12.4	15.0		VT	HU	C	6.3	1200	400	2	5	1250	50	1K	30				400		CO
V24B	#	KLA	9.0	9.6	75	FX	VA	P	6.3	2500	36K	10A	50K				57			24	IM		WG
VA24C		KLA	9.0	9.6			VA	P					50K				56		5	23			
24M10		MAG	2.4				OK	C			13K	15A	50K										

NUMERICAL LISTING

TYPE NUMBER	CODE	KIND	FREQUENCY		DUTY CYCLE	TUNING	MFR	OPERATION	E_f	I_f	MAXIMUM							TYPICAL					
			Min	Max							E_b	I_k	P_o	REFLECTOR COLLECTOR	E_{g_1}	HELIX VOLTAGE	GAIN	NF	PULL FACTOR	BAND WIDTH	MAG FIELD	CAVITY	COUPLING
			G_c	G_c	10^4				v	ma	v	ma	mw	v	v	v	db	db		Mc	gauss		
24V10		KLO	21.5	26.5		MEC	OK	C			1800	10	50									RI	WG
24W80		TWA	22.0	25.0			NE						22								IM		
HA25		TWA	12.0	18.0			HU	C	6.3	1400	500	800U	5	1300		1K	30				1000		WG
HA26	S	TWA	4.0	8.0		VT	HU	C	6.3	1000	450	2	10	800		800	30				400		CO
HA27		TWA	1.0	2.0			HU	C	7.0	1000	700	5	5	650		500	30						CO
SMS27		KLM	2.6	2.7		MEC	SP	C	6.3	4000,	1250	70	300		100		10					IN	CO
HA28		TWA	4.0	8.0		VT	HU	C	6.3	750	400	2	10	800	50	800	30				IM		CO
SAS28		KLA	2.6	2.7		FX	SP	C	7.5	11A	4000	350	150W		200		28					3I	CO
HA29		TWA	2.0	4.0		VT	HU	C	6.3	1000	350	4	10	525		525	30				IM		CO
HA30		TWA	2.0	4.0		VT	HU	C	7.0	900	450	20	1000	1100		1K	30				IM		CO
SY30		KLA	9.5	9.5		FX	FE	C	7.0	3000	10K	260	200W				12			18		2I	WG
30TWA1		TWA	X			VT	EB	C					1K				10						
30V10		KLO	28.0	32.0		MEC	OK	C	6.3	700	2200	12	40	500	200					60		RI	WG
HA31		TWA	1.0	2.0		VT	HU	C	6.3	1200	175	4	10	220		220	30				IM		CO
HA32		TWA	4.0	8.0			HU	C	5.0	1100	500	2	1	800		700	25	15			1000		CO
SMX32		KLM	9.0	10.5		MEC	SP	C	6.3	1600	1000	150	1800				2					3I	WG
HA33		TWA	8.0	14.0		VT	HU	C	6.3	1200	500	2		1600		1K	25	15			1000		CO
SAC33		KLA	4.8	5.3		FX	SP	C	7.0	6500	5400	450	500W				30				IM	3I	WG
33M10		MAG	3.3				OK	C			13K	18A	40K										
33V10		KLO	30.5	34.5		MEC	OK	C	6.3	700	2200	12	50	500	200					80		RI	
HA34		TWM	2.0	4.0			HU	C	6.3	1000	200	6	2	550		550	5				550		CO
HA35		TWA	4.0	8.0		VT	HU	C	7.0	1200	700	6	800	1500		2K	27				IM		CO
JP35-30		MAG	34.5	35.2	3	FX	MU	P	4.0	4A	16K	16A	32K						40		IM		WG
35M10		MAG	3.5				OK	C			13K	18A	40K										
35V10		KLO	33.0	37.0		MEC	OK	C	6.3	700	2200	12	40	500	200					80		RI	WG
35V11		KLO	33.0	37.0		MEC	OK	C	6.3	700	2200	30	100	500	200					130		RI	WG
HA36		TWA	0.5	1.0		VT	HU	C	6.3	1400	175	8	10	300		300	20				IM		CO
HA37		TWA	2.0	4.0		VT	HU	C	6.3	900	50	1		500		500	25	11			750		CO
SRV38	S#	KLO	33.0	36.0		MEC	SP	C	6.3	600	425	40	25	400						100		RI	WG
TK-38	S	KLO	5.1	5.9		MEC	BE	C	6.3	500	330	35	70	300								RI	CO
HA39		TWA	1.6	2.6		VT	HU	C	7.0	1200	450	25	1000	1250		1K	30				600		CO
SAL39A	*	KLA	1.0	1.2	100	MEC	SP	P	5.0	43A	20K	8500	30K				23			10		3I	CO
COE40		CAR	75.0	75.0			CS	C	6.3	3000	1500	60	500			6K					IM		
G40		TWA	8.2	12.4		VT	GL	C	7.0	800	800	8	100	2100		2K	24				900		CO
HA40		TWA	0.5	1.0		VT	HU	C	6.3	850	20	2		450		130	25	15			800		CO

NUMERICAL LISTING

TYPE NUMBER	CODE	KIND	FREQUENCY		DUTY CYCLE	TUNING	MFR	OPERATION	E_f	I_f	MAXIMUM							TYPICAL					
			Min	Max							E_b	I_k	P_o	REFLECTOR COLLECTOR	E_{g_1}	HELIX VOLTAGE	GAIN	NF	PULL FACTOR	BAND WIDTH	MAG FIELD	CAVITY	COUPLING
			G_c	G_c	10^4				v	ma	v	ma	mw	v	v	v	db	db		Mc	gauss		
SMK40		KLM	23.5	26.0		FX	SP	C	6.3	2000	1500	170	600		45		5					3I	WG
SAC41		KLA	3.7	4.2		MEC	SP	C	6.3	2000	1000	300	12W				28			8		3I	WG
G42		TWA	8.2	12.4		VT	GL	C	7.0	800	400	13	100	2100	75	2K	20				900		CO
G42		TWA	8.2	12.4		VT	GL	P	7.0	800	400	13	1000	2100	100	2K	30				900		CO
C043		CAR	7.0	11.0		VT	CS	C	6.3	2100	300	25	80	1450	20	1K					IM		CO
HA43		TWA	12.0	18.0			HU	C	6.3	1400	750	800U	1	1300		1K	25	17			1000		WG
SRC43A		KLO	5.9	6.2		MEC	SP	C	6.3	800	900	110	2000	850						60		RI	WG
SRC43B		KLO	6.1	6.4		MEC	SP	C	6.3	800	900	110	2000	850						60		RI	WG
SRC43E		KLO	6.8	7.2		MEC	SP	C	6.3	800	900	110	2000	850						60		RI	WG
SRC43F		KLO	7.1	7.4		MEC	SP	C	6.3	800	900	110	2000	850						60		RI	WG
HA44	S	TWA	8.2	12.4		VT	HU	C	7.0	1200	450	2	5	1600		1K	25	15			1000		CO
HA45		TWA	0.5	1.0			HU	C	6.3	1000	50	2	1	400		120	25	10			820		CO
45V10		KLO	41.0	48.0		MEC	OK	C			2000	20	40									RI	WG
HA46		TWA	12.0	18.0			HU	C	6.3	1400	750	800U	1	1300		1K	25	12			1000		WG
HA47		TWA	4.0	8.0			HU	C	6.3	1100	500	2	1	800		700	25	10			1000		CO
HA48		TWA	12.0	16.0			HU	C	6.3	1400	750	800U	1	1300		1K	25	13			1000		WG
STL48	#	TWA	0.5	1.0		FX	SP	C	12.6	5000	3300	625	200W				30				200		CO
HA49		TWA	10.5	16.0		VT	HU	C	6.3	1200	450	3	3	1300	20	1K	30				IM		WG
STP49	#	TWA	0.2	0.5		FX	SP	C	12.6	3300	2200	850	200W				30			270	380		CO
BL50		MAG	51.5	55.5	15		BL	P	2.0	27A	18K	10A	5K								IM		WG
BL50A		MAG	54.5	57.5	15		BL	P	2.0	27A	18K	10A	5K								IM		WG
BL50B		MAG	56.5	60.0	15		BL	P	2.0	27A	18K	10A	5K								IM		WG
50M10		MAG	5.0				OK	C			12K	16A	20K										
50V10		KLO	43.0	51.0		MEC	OK	C	6.3	700	2500	30	50	500	200					130		RI	WG
HA51		TWA	0.2	0.5		VT	HU	C	6.3	1500	200	10	10	220		220	20				IM		CO
HA52		TWA	0.5	1.0			HU	C					5				30						CO
HA53		TWA	1.0	2.0		VT	HU	C	7.0	1400	600	75	2000	1300	100	1K	30					IM	CO
TK-53	S#	KLO	34.0	35.6		MEC	BE	C	6.3	600	425	40	10	400						60		RI	WG
V53B		KLO	10.7	11.7		MEC	VA	C	6.3	1200	400	32	109	250						40		RI	WG
HA54		TWA	2.0	4.0			HU																
LW54		TWA	3.6	4.6		VT	LR	C	6.3	1200	1000	45	5000	2000	100	2K	52	30		30	550		WG
V54	S	KLO	10.5	12.2		MEC	VA	C	6.3	1200	500	70	410	370						60		RI	WG
SRU55	#	KLO	14.5	17.0		MEC	SP	C	6.3	550	350	40	75	350						90		RI	WG
SRU55A	#	KLO	15.7	17.0		MEC	SP	C	6.3	550	350	35	45	350						92		RI	WG
V55	#	KLO	8.2	11.5		MEC	VA	C	6.3	1200	550	70	800	360						60		RI	WG

TYPE NUMBER	CODE	KIND	FREQUENCY		DUTY CYCLE	TUNING	MFR	OPERATION	E_f	I_f	MAXIMUM							TYPICAL					
			Min	Max							E_b	I_k	P_o	REFLECTOR COLLECTOR	E_{g_1}	HELIX VOLTAGE	GAIN	NF	PULL FACTOR	BAND WIDTH	MAG FIELD	CAVITY	COUPLING
			G_c	G_c	10^4				v	ma	v	ma	mw	v	v	v	db	db		Mc	gauss		
V55B	#	KLO	8.2	11.5		MEC	VA	C	6.3	1200	550	70	800	360						60		R1	WG
55V10		KLO	52.0	58.0		MEC	OK	C	6.3	700	2500	30	40	500	200					140		R1	WG
TWO-57	S	BWO	49.0	59.0		VT	BE	C	6.3		3000	10	5								1300		WG
HA58		TWA	0.5	1.0		VT	HU	C					1000				30						CO
V58	S#	KLO	8.5	10.0		MEC	VA	C	6.3	1200	500	60	750	1000						75		R1	WG
V58C	S#	KLO	8.5	10.0		MEC	VA	C	6.3	1200	500	60	750	1000						75		R1	WG
HA60		TWA	8.0	11.0			HU											17					
SAS60A		KLA	2.7	3.3		MEC	SP	C	6.3	2000	1000	300	25W		100		32					31	CO
SAS60B		KLA	2.7	2.9	2K	MEC	SP	P	6.3	2000	1400	650	30W		100		30			8		31	CO
TK-60	S#	KLO	23.2	24.8		MEC	BE	C	6.3	750	330	30	10	300						55		R1	WG
60V10		KLO	55.0	65.0		MEC	OK	C			3000	30	20									R1	WG
HA61		TWA	7.0	14.0		VT	HU	C	6.3	1100	500	2	1	1300		1K	25	15			1000		CO
SAS61		KLA	2.7	2.9	40	MEC	SP	P	6.3	6000	15K	5500	10K				30			17		31	CO
TK-61	S#	KLO	10.5	10.5		FX	BE	C	6.3	518	350	32	20	350						35		R1	CO
HA62		TWA	2.0	4.0		VT	HU	C	6.3	1100	150	2	5	700		500	25	11			810		CO
C063		CAR	4.8	9.6		VT	CS	C	6.3	2100	300	30	80	1400	20	1K					1M		CO
HA63		TWA	1.0	2.0			HU																
SRC64D-1		KLO	5.4	5.9		MEC	SP	C	6.3	800	900	110	1200	1100						50		R1	WG
VA64F	#	KLO	13.5	13.5		FX	VA	C	6.6	1000	3150	77	18W									21	WG
VA64G	#	KLO	13.3	13.3		FX	VA	C	6.6	1000	3150	77	18W									21	WG
HA65		TWA	8.2	11.0			HU																
HA66		TWA	8.2	11.0			HU																
TWO-66	S	BWO	61.0	71.0		VT	BE	C	6.3	600	1800	7	2	500	350						2000		WG
TWO-67	S	BWO	49.0	59.0		VT	BE	C	6.3	600	2300	7	5	500	350						2000		WG
HA68		TWA	2.0	4.0			HU																
TK-68	S#	KLO	5.1	5.4		TH	BE	C	6.3	518	330	35	80	400						30		R1	CO
HA70		TWA	2.3	3.5			HU	C	6.3	1100	75	2	1	525		470	30	7			750		CO
STL70	#	TWA	1.0	2.0		FX	SP	C	6.3	3400	900	34	2000		30		48				300		CO
70V10		KLO	65.0	71.0		MEC	OK	C	6.3	700	3500	35	15	500	80							R1	WG
HA71		TWA	8.2	12.4		VT	HU	C	7.0	1200	800	8	100	2300		2K	25				1M		CO
HA72		TWA	0.5	1.0		VT	HU	C	6.3	1200	30	2	1	400		120		8			820		CO
HA73		TWA	1.0	2.0		VT	HU	C	6.3	800	150	2	1	500		200	25	8			1000		CO
HA74	S	TWA	2.0	4.0		VT	HU	C	6.3	1100	150	2	10	700		500	25	15			810		CO
HA75	S	TWA	2.2	3.7			HU	C	6.3	1100	75	2	1	525		470	30	8			750		CO
TWO-75	S	BWO	40.0	50.0			BE	C	6.3	600	3000	7	10	500	350						2000		WG

TYPE NUMBER	CODE	KIND	FREQUENCY		DUTY CYCLE	TUNING	MFR	OPERATION	E_f	I_f	MAXIMUM							TYPICAL					
			Min	Max							E_b	I_k	P_o	REFLECTOR COLLECTOR	E_{g_1}	HELIX VOLTAGE	GAIN	NF	PULL FACTOR	BAND WIDTH	MAG FIELD	CAVITY	COUPLING
			G_c	G_c	10^4				v	ma	v	ma	mw	v	v	v	db	db		Mc	gauss		
CV76		MAG	3.0	3.1	10	FX	GC	P	5.0	2500	27K	35A	450K								2300		WG
HA76		TWA	2.3	2.9			HU	C	6.3	1100	75	2	1	525		470	30	6			750		CO
STX76	#	TWA	7.0	11.0		FX	SP	C	10.0	900	1600	10	500		185		50				750		CO
TK76		KLO	3.5	4.3			TE	C	6.3	1550	600	70	380	1000						20		RI	
STX77	#	TWA	7.0	11.0		FX	SP	C	10.5	1050	5000	60	10W		50		45				1000		CO
STS78	#	TWA	2.0	4.0		FX	SP	C	6.3	1000	900	30	1000		50		50				575		CO
TK-78	S#	KLO	34.0	35.6		MEC	BE	C	6.3	600	425	60	10	400						60		RI	WG
SAL81	#	KLA	1.2	1.4	1K	MEC	SP	P	4.5	35A	20K	8500	20K				22					3I	CO
HA82		TWA	10.0	20.0		VT	HU	C	6.3	1400	500	800U	1	1500	25		25				1000		WG
V82		KLA	9.3	9.3	300	FX	VA	P	6.3	1500	18K	2900	7K				56			27	IM		WG
MC83		MAG	3.5	3.5	5	FX	SF	P	5.3	2600	30K	40A	450K								2400		
MC84		MAG	3.5	3.5	5	FX	SF	P	5.3	2600	30K	40A	450K								2400		
TK-84	#	KLO	15.0	17.0		TH	BE	C			300		30									RI	WG
MC85		MAG	3.5	3.5	5	FX	SF	P	5.3	2600	30K	40A	450K								2400		
MCV85D1		MAG	3.5	3.6		MEC	SF	C	6.3	2600	1400	300	150W								IM		
MCV85D2		MAG	3.6	3.7		MEC	SF	C	6.3	2600	1400	300	150W								IM		
TWO-85	S	BWO	70.0	85.0			BE	C	6.3	600	3500	7	1	500	350						2000		WG
MC86		MAG	3.4	3.4	5	FX	SF	P	5.3	2600	30K	40A	450K								2400		
MC87		MAG	3.4	3.4	5	FX	SF	P	5.3	2600	30K	40A	450K								2400		
VA878	#	KLA	2.7	2.8	30	MEC	VA	P	7.5	33A	110K	50A	1M								IM	IN	WG
VA87C	#	KLA	2.8	2.9	30	MEC	VA	P	7.5	33A	110K	50A	1M								IM	IN	WG
MC88		MAG	3.4	3.4	5	FX	SF	P	5.3	2600	30K	40A	450K								2400		
MC89		MAG	3.3	3.4	5	FX	SF	P	5.3	2600	30K	40A	450K								2400		
SAL89	#	KLA	1.0	1.2	1K	MEC	SP	P	4.2	40A	20K	8500	30K		550		30			10		3I	CO
MC90		MAG	3.3	3.3	5	FX	SF	P	5.3	2600	30K	40A	450K								2400		
TK-90	#	KLO	8.5	10.0		MEC	BE	C	6.3	518		32	30	145						40			CO
MC91		MAG	3.3	3.3	5	FX	SF	P	5.3	2600	30K	40A	450K								2400		
D92		TWA	8.5	9.6	50		IT	P	6.3	2500	10K	2000	1K	10K			30						
MC92		MAG	3.2	3.3	5	FX	SF	P	5.3	2600	30K	40A	450K								2400		
SRX92	*	KLO	8.5	10.5		MEC	SP	C	6.3	450	330	37	60	500						56		RI	WG
MC93		MAG	3.2	3.2	5	FX	SF	P	5.3	2600	30K	40A	450K								2400		
C094		CAR	3.6	7.2		VT	CS	C	6.3	2100	300	40	80	1400	20	1K					IM		CO
MC94		MAG	3.2	3.2	5	FX	SF	P	5.3	2600	30K	40A	450K								2400		
VA94	#	KLO	16.0	17.0		MEC	VA	C	6.3	1200	350	35	20	500						55		RI	WG
D95		TWA	8.5	9.6	50		1T	P	6.3	5000	10K	2000	1K	10K	100		30						

TYPE NUMBER	CODE	KIND	FREQUENCY		DUTY CYCLE	TUNING	MFR	OPERATION	E_f	I_f	MAXIMUM							TYPICAL					
			Min	Max							E_b	I_k	P_o	REFLECTOR COLLECTOR	E_{g_1}	HELIX VOLTAGE	GAIN	NF	PULL FACTOR	BAND WIDTH	MAG FIELD	CAVITY	COUPLING
			G_c	G_c	10^4				v	ma	v	ma	mw	v	v	v	db	db		Mc	gauss		
MC95		MAG	3.2	3.2	5	FX	SF	P	5.3	2600	30K	40A	450K								2400		
SRU95	#	KLO	12.4	15.5		MEC	SP	C	6.3	550	350	40	70	350						82		RI	WG
MC96		MAG	3.1	3.1	5	FX	SF	P	5.3	2600	30K	40A	450K								2400		
VA96	#	KLO	22.0	25.0		FX	VA	C	6.3	1200	800	40	55	225						110		RI	WG
MC97		MAG	3.1	3.1	5	FX	SF	P	5.3	2600	30K	40A	450K								2400		
VA97B	#	KLO	32.6	34.0		MEC	VA	C	6.3	1200	425	50	20	500						88		RI	WG
MC98		MAG	3.1	3.1	5	FX	SF	P	5.3	2600	30K	40A	450K								2400		
MC99		MAG	3.0	3.1	5	FX	SF	P	5.3	2600	30K	40A	450K								2400		
VA99	#	KLO	68.0	72.0		FX	VA						250										
G100		TWA	2.0	4.0		VT	GL	C	6.3	700	400	4	10	450	50	450	30				250		CO
G-100P		TWA	2.0	4.0			GL						10				30						
MC100		MAG	3.0	3.0	5	FX	SF	P	5.3	2600	30K	40A	450K								2400		
STL100	#	TWA	1.0	2.0		FX	SP	C	12.6	5700	5300	420	250W				45				475		CO
MC101		MAG	3.0	3.0	5	FX	SF	P	5.3	2600	30K	40A	450K								2400		
MCV101A1		MAG	2.9	3.0	1K		SF	P	6.3	1500	2000	2000	300W								1700		
MCV101A2		MAG	3.0	3.1	1K		SF	P	6.3	1500	2000	2000	300W								1700		
MCV101B1		MAG	3.1	3.2	1K		SF	P	6.3	1500	2000	2000	300W								1700		
MCV101B2		MAG	3.2	3.3	1K		SF	P	6.3	1500	2000	2000	300W								1700		
MCV101C1		MAG	3.3	3.4	1K		SF	P	6.3	1500	2000	2000	300W								1700		
MCV101C2		MAG	3.4	3.5	1K		SF	P	6.3	1500	2000	2000	300W								1700		
MCV101D1		MAG	3.5	3.6	1K		SF	P	6.3	1500	2000	2000	300W								1700		
MCV101D2		MAG	3.6	3.7	1K		SF	P	6.3	1500	2000	2000	300W								1700		
STS101	#	TWA	2.0	4.0		FX	SP	C	6.3	2600	5600	380	300W				40				750		CO
MC102		MAG	2.9	3.0	5	FX	SF	P	5.3	2600	30K	40A	450K								2400		
MC103		MAG	2.9	2.9	5	FX	SF	P	5.3	2600	30K	40A	450K								2400		
STX104	#	TWA	7.0	8.8		FX	SP	C	6.3	3600	8000	300	100W	2660	150		40				1000		WG
STX105	#	TWA	8.6	11.0		FX	SP	C	6.3	3600	8000	300	100W	2660	150		40				1200		WG
STP106	#	TWA	0.3	0.6			SP	C	6.3	1520	290	600U	5	400		270	20		10		150		CO
STP107	#	TWA	0.3	0.6		FX	SP	C	6.3	4000	400	70	2000		24		32						CO
STP108	#	TWA	0.3	0.6	5K	FX	SP	P	12.6	3000	2200	750	200W				30				750		CO
STL109		TWA	1.3	1.4	25		SP	P	40.0	5000	25K	8000	25K		300		40	45			IM		CO
G110		TWA	2.0	4.0		VT	GL	C	7.0	800	400	25	1000	1050		950	34				500		CO
G-110P		TWA	2.0	4.0			GL						1000										
STL111	#	TWA	1.1	1.6		FX	SP	C	6.3	1800	800	48	3000				30				300		CO
VA113		KLO	5.9	6.6		MEC	VA	C	6.3	800	750	80	135	1000						36		RI	WG

TYPE NUMBER	CODE	KIND	FREQUENCY		DUTY CYCLE	TUNING	MFR	OPERATION	E_f	I_f	MAXIMUM							TYPICAL					
			Min	Max							E_b	I_k	P_o	REFLECTOR COLLECTOR	E_{g_1}	HELIX VOLTAGE	GAIN	NF	PULL FACTOR	BAND WIDTH	MAG FIELD	CAVITY	COUPLING
			G_c	G_c	10^4				v	ma	v	ma	mw	v	v	v	db	db		Mc	gauss		
STL114	#	TWA	1.1	1.6	40	FX	SP	P	6.3	2100	14K	5000	5K				39				700		CO
VA114		KLO	6.6	7.2		MEC	VA	C	6.3	800	750	80	135	1000						36		RI	WG
VA115		KLO	7.2	7.7		MEC	VA	C	6.3	800	750	80	135	1000						36		R1	WG
KR117		KLO	2.9	3.6			SF	C	6.3	1000	450	35	430	450						29		RI	
STC118	#	TWA	5.4	5.9	20	FX	SP	P	6.3	2200	15K	3100	2K				28				1700		CO
CO119	S	CAR	2.4	4.7		VT	CS	C	6.3	2400	250	50	300	1400	300	1K					IM		CO
STC119	#	TWA	5.4	5.9	100		SP	P	6.3	2200	13K	1900	1K				30				1700		CO
CV120A		MAG	S		4		TH	P	6.0	7000	27K	40A	400K								1350		CO
CV120B		MAG	S		4		TH	P	6.0	7000	27K	40A	400K								1350		CO
CV120C		MAG	S		4		TH	P	6.0	7000	27K	40A	400K								1350		CO
G120		TWA	2.0	4.0		VT	GL	C	7.0	800	400	35	1000	950	100	950	34	12			500		CO
DX122	X	KLO	8.5	10.5		FX		C	11.0	1200	2750	35	5000						6			IN	WG
STL122	#	TWA	0.4	0.7		FX	SP	C	6.3	1800	800	45	3000				35				300		CO
DX123	X	KLO	8.5	10.5		FX		C	11.0	1200	4350	71	33W						6			IN	WG
DX124	X	KLO	8.5	10.5		FX		C	11.0	1200	8800	180	210W						6			1N	WG
STC124	#	TWA	5.2	5.8	30	FX	SP	P	6.3	3000	13K	3700	1K				30				1500		CO
DX125	M	MAG	8.5	9.6	10	MEC		P	20.0	4000	30K	25A	225K						16				WG
STS125	#	TWA	2.0	4.0	200	FX	SP	P	6.3	2100	7500	2000	1K				40				600		CO
VA125A	#	TWA	2.7	3.0	25	VT	VA	P	7.5	33A	125K	75A	2M				37			300			WG
VA125B	#	TWA	2.9	3.2	25	VT	VA	P	7.5	33A	125K	75A	2M				37			300			WG
STS126	#	TWA	2.0	4.0	20	FX	SP	P	6.3		20K	5000	10K				20						WG
VA126		TWA	5.4	5.9			VA	P					3M				35			500			
VA128	#	TWA	2.7	3.0		VT	VA	P	7.5	2000	15K	4000	10K		200					600	1M		CO
STC129	#	TWA	5.4	5.9	30	FX	SP	P	6.3	3000	13K	3700	1K				33				1600		CO
G130		TWA	2.0	4.0		VT	GL	C	6.3	750		750U		2300		2K	28			600	100		CO
VA131	#	TWA	1.2	1.6			VA	P			25K	12A	50K		250		45				1M		
VA132	#	TWA	0.5	1.0			VA	C			2500	800	200W				30						
VA133		TWA	1.2	1.4			VA	C					5K				50			150	IM		
STC134	#	TWA	3.9	5.8		FX	SP	C	6.3	1000	1950	70	5000		60		35				900		CO
VA134		TWA	0.5	0.6			VA	P					5K				45			120	IM		
KR142B		KLO	2.9	3.6			SF	C	6.3	2400	400	75	190	250						26		RI	
SAC148	#	KLA	5.3	5.8	40	MEC	SP	P	5.0	35A	90K	54A	2M				60			120	1600	51	WG
SOC150	S#	KLO	5.0	5.0		FX	SP	C	6.3	800	1100	175	10W		100							3I	CO
DX151	M	KLO	67.0	73.0		MEC		C	3.5	1800	2400	17	100	300						100		IN	WG
SAX151A	#	KLA	9.2	9.2	100	FX	SP	P	4.5	22A	75K	42A	1M				45			500	2500	61	WG

TYPE NUMBER	CODE	KIND	FREQUENCY		DUTY CYCLE	TUNING	MFR	OPERATION	E_f	I_f	MAXIMUM							TYPICAL					
			Min	Max							E_b	I_k	P_o	REFLECTOR COLLECTOR	E_{g_1}	HELIX VOLTAGE	GAIN	NF	PULL FACTOR	BAND WIDTH	MAG FIELD	CAVITY	COUPLING
			G_c	G_c	10^4				v	ma	v	ma	mw	v	v	v	db	db		Mc	gauss		
SAX151B	#	KLA	9.2	9.2		FX	SP	P	4.5	22A	75K	42A	1M				45			500	2500	6I	WG
STC152	#	TWA	5.4	5.9	20		SP	P	6.6	3000	15K	4500	2K				28				1850		CO
SAL153	#	KLA	1.4	1.4	11	FX	SP	P	5.0	50A	160K	150A	8M				40			140	1700	6I	WG
STL154	#	TWA	0.9	1.2	50	FX	SP	P	6.3	2000	11K	3900	4K				39				580		CO
V154	S#	KLO	10.5	12.2		MEC	VA	C	6.3	1200	400	70	410	370						60			WG
VA157		KLO	8.5	10.0		MEC	VA	C	6.3	1200	350	60	360	255						90		RI	WG
CV160	S	MAG	3.0	3.1	10	FX	GC	P	6.0	1250	22K	22A	200K						7		2050		CO
VA161	#	BWO	8.2	12.4		VT	VA	C	9.0	1100		35	140		80	650					IM		WG
VA161B	S#	BWO	7.5	11.0		VT	VA	C	9.0	1100		35	140		80	550					IM		WG
VA162	#	BWO	12.4	18.0		VT	VA	C	9.0	1000		20	30		130	1K					IM		WG
VA163	#	BWO	18.0	27.0		VT	VA	C					5								IM		
DX164	M	MAG	75.0	75.0	2	FX		P	4.8	4000	13K	10A	25K										WG
VA164	#	BWO	27.0	40.0		VT	VA	C					3								IM		
STS168	#	TWA	2.0	4.0			SP	C	6.3	1000	960	40	1000		35		50	35			IM		CO
VA168	#	BWO	8.4	9.4		VT	VA	C	9.0	1000	700	45	200		80						IM		WG
VA169	S#	BWO	7.5	11.0			VA	C	9.0		875	30	650		60						IM		WG
STL171	#	TWA	0.5	1.0			SP	C	6.3	2500	1000	80	3500		24		37	30			225		CO
QK172	S	MAG	9.3	9.4	10	FX	RA	P	6.0	30A	33K	67A	800K							4	IM		WG
STP172	#	TWA	0.2	0.5			SP	C	12.6	2500	1000	85	3500		24		37	35			100		CO
STC174	#	TWA	5.4	5.9			SP	C	6.3	1000	1850	50	5000		50		55				IM		CO
STX175	#	TWA	5.0	11.0			SP	C	11.0	1000	2200	20	1000		25		60	32			IM		CO
VA179	#	BWO	3.1	5.5		VT	VA	C					20								IM		CO
STX180	#	TWA	5.5	11.0			SP	C	11.0	950	1600	10	500		185		50				IM		CO
VA181	#	BWO	2.0	4.0		MEC	VA	C					10										CO
DX184	M	KLO	31.0	36.0		MEC		C	6.3	800	2250	15	100	300						60		IN	WG
V190C/1M		KLO	0.8	1.0		MEC	ST	C	6.3	1000	300	100	2000	300	20					4	1200	EX	CO
CV192		MAG	3.3	3.3	8	FX	GC	P	6.0	1250	22K	23A	225K								1880		WG
G200		TWA	4.0	8.0		VT	GL	C	6.3	750	550	2	10	700		700	30				275		CO
G-200P		TWA	4.0	8.0			GL						10				30						
MA200	S	MAG	34.7	35.0	4	FX	MA	P	12.6	3000	13K	20A	40K						40				WG
STL200		TWA	1.0	2.0		FX	SP	C	12.6	3600	34K	395	200W				50				500		CO
SOU201	#	KLO	12.5	15.0		MEC	SP	C	6.3	1600	1700	140	15W							30		2I	WG
VA201	#	KLO	8.5	9.6		MEC	VA	C	6.3	1200	350	55	40	500						40		RI	WG
VA201B	S#	KLO	8.5	9.6		MEC	VA	C	6.3	1200	350	55	40	500						40		RI	WG
VA204		KLO	10.5	10.5		FX	VA						20										

TYPE NUMBER	CODE	KIND	FREQUENCY		DUTY CYCLE	TUNING	MFR	OPERATION	E_f	I_f	MAXIMUM							TYPICAL					
			Min	Max							E_b	I_k	P_o	REFLECTOR COLLECTOR	E_{g_1}	HELIX VOLTAGE	GAIN	NF	PULL FACTOR	BAND WIDTH	MAG FIELD	CAVITY	COUPLING
			G_c	G_c	10^4				v	ma	v	ma	mw	v	v	v	db	db		Mc	gauss		
MA205	#	MAG	8.8	8.8	*2K	FX	MA	P	6.3	600	900	200	40W						20				WG
BL206		MAG	5.4	5.9	20	MEC	BL	P	5.0	500	1500	1200	100W						12	3	1M		CO
MA206	S#	MAG	34.7	35.0	5	FX	MA	P	12.6	3000	13K	10A	20K						40				WG
WJ206		TWA	8.4	9.4	100		WJ	P	12.5	4000	28K	4500	10K								1M		WG
MA207	S#	MAG	34.7	35.0	4	FX	MA	P	12.6	3000	13K	20A	50K						60				WG
WJ207	S#	HEL	0.2	0.5		VT	WJ	C	12.0	3000	600	11	3	250		2K							CO
MA208	#	MAG	7.1	8.5	200	MEC	MA	P	6.3	600	900	200	20W						15				WG
WJ208	S	HEL	0.5	1.0		VT	WJ	C	6.3	1000	750	10	1	250		2K							CO
BL209		MAG	5.4	5.9	20	MEC	BL	P	5.0	500	1500	1300	200								1M		CO
CV209		MAG	X		12		TH	P	6.3	800	14K	12A	45K								2670		WG
MA209	#	MAG	9.3	10.0	10	MEC	MA	P	6.3	800	6000	5000	7K						20				WG
C0210	S	CAR	1.6	3.2		VT	CS	C	6.3	3100	300	70	400	1400	20	1K					1M		CO
G210		TWA	4.0	8.0		VT	GL	C	7.0	750	500	20	1000	1400		1K	32				750		CO
G-210P		TWA	4.0	8.0			GL						1000										
MA210A	#	MAG	34.2	34.7	4	MEC	MA	P	12.6	3000	13K	20A	40K						40				WG
MA210B	#	MAG	34.6	35.1	4	MEC	MA	P	12.6	3000	13K	20A	40K						40				WG
MA210C	#	MAG	35.0	35.5	4	MEC	MA	P	12.6	3000	13K	20A	40K						40				WG
SRU210	#	KLO	15.8	16.2		MEC	SP	C	6.3	550	350	35	40	500						92		R1	WG
VA210B	#	KLO	9.6	10.8		MEC	VA	C	6.3	1200	300	35	30	175						40		RI	WG
MA211	#	MAG	34.7	35.0	14	FX	MA	P	12.6	3000	11K	8A	10K						40		1M		WG
SAU211	#	KLA	12.6	18.0		MEC	SP	C	6.3	1600	1700	140	10W				6					21	WG
WJ211		TWA	2.0	4.0			WJ	C	3.5	630	120	60U				185	20	6					CO
WJ211-1		TWA	2.1	2.4			WJ	C	3.5	650	120	60U		700		185	20	4					CO
WJ211-2		TWA	2.3	2.7			WJ	C	3.5	650	120	60U		700		185	20	4					CO
WJ211-3		TWA	2.5	3.5			WJ	C	3.5	650	120	60U		700		185	20	4					CO
Z211/1G		KLA	1.0	1.2	300	MEC	ST	P	12.6	1800	5000	2500	7K	15K			33				600	3E	CO
BL212		MAG	5.4	5.9	20	MEC	BL	P	5.0	500	1500	1200	100W						12	3	1M		CO
MA212		MAG	8.8	10.0		FX	MA	C			420	15	1000										
MA212		MAG	8.8	10.0	1K	FX	MA	P			500	150	10W										
WJ212		TWA	1.0	2.0			WJ	C	4.5	800	30	60U		500		155	20	5					CO
WJ212-1		TWA	1.1	1.6			WJ	C	4.5	800	30	60U		500		155	20	4					CO
CV214		MAG	9.6	9.7	5	FX	GC	P	3.0	2500	16K	10A	47K						15		3250		WG
MA214	#	MAG	9.0	10.0		MEC	MA	C	6.3	500	500	15	1000						15				WG
MA214	#	MAG	9.0	10.0	1K	MEC	MA	P	6.3	500	500	75	5000						15				WG
BL215		MAG	5.4	5.9	20	MEC	BL	P	5.0	750	2500	1500	400W								1M		CO

NUMERICAL LISTING

TYPE NUMBER	CODE	KIND	FREQUENCY		DUTY CYCLE	TUNING	MFR	OPERATION	E_f	I_f	MAXIMUM							TYPICAL					
			Min	Max							E_b	I_k	P_o	REFLECTOR COLLECTOR	E_{g_1}	HELIX VOLTAGE	GAIN	NF	PULL FACTOR	BAND WIDTH	MAG FIELD	CAVITY	COUPLING
			G_c	G_c	10^4				v	ma	v	ma	mw	v	v	v	db	db		Mc	gauss		
MA215	#	MAG	8.8	9.6	200	FX	MA	P	6.3	600	900	500	100W						15				WG
SRV215	#	KLO	34.2	35.4		MEC	SP	C	6.3	600	425	35	30	500						150		RI	WG
BL216		MAG	15.9	16.1		FX	BL						100K										WG
SRV216	#	KLO	15.0	17.0		MEC	SP	C	6.3	550	350	31	45	500						100		RI	WG
MA217	#	MAG	7.5	8.5		MEC	MA	C	6.3	500	500	15	1000						15				WG
MA217	#	MAG	7.5	8.5	1K	MEC	MA	P	6.3	500	500	75	5000						15				WG
SOC217	S#	KLO	4.0	6.0			SP	C	6.3	300	380	15	300							7		2I	CO
VA217	#	KLO	8.5	9.6		MEC	VA	C	6.3	1200	250	21	25	70						40		RI	WG
VA217C	#	KLO	8.5	9.6		MEC	VA	C	6.9	1200	350	45	60	20						50		RI	WG
BL218		MAG	51.5	55.5	15		BL	P	6.3	3000	18K	10A	5K								IM		WG
MA218	#	MAG	9.3	10.0	20	MEC	MA	P	6.3	800	6000	5000	7K						20				WG
VA218	#	KLO	10.5	10.5		FX	VA	C	6.3	450	350	37	62	250								RI	WG
BL219		MAG	54.5	57.5	15		BL	P	6.3	3000	18K	10A	5K								IM		WG
MA219		MAG	8.5	9.6		MEC	MA	C			430	15	1000										
MA219		MAG	8.5	9.6	1K	MEC	MA	P			520	350	20W										
SAL219	#	KLA	1.0	1.2	250	MEC	SP	P	4.2	35A	23K	8000	37K		230		21					3I	CO
BL220		MAG	56.5	60.0	15		BL	P	6.3	3000	18K	10A	5K								IM		WG
MA220		MAG	5.4	5.9	3	MEC	MA	P			10K	12A	40K										
SK220A	S	KLO	7.4	7.8		MEC	SY	C	6.3	900	750	80	1100	1000					10	60		RI	WG
SK220B	S	KLO	7.1	7.4		MEC	SY	C	6.3	900	750	80	1100	1000					10	60		RI	WG
SK220C	S	KLO	6.9	7.1		MEC	SY	C	6.3	900	750	80	1100	1000					10	60		RI	WG
SK220D	S	KLO	6.6	6.9		MEC	SY	C	6.3	900	750	80	1100	1000					10	60		RI	WG
SK220E	S	KLO	6.1	6.4		MEC	SY	C	6.3	900	750	80	1100	1000					10	60		RI	WG
SK220F	S	KLO	5.9	6.2		MEC	SY	C	6.3	900	750	80	1100	1000					10	60		RI	WG
SK220Z	S	KLO	7.8	8.1		MEC	SY	C	6.3	900	750	80	1000	1000					10	60		RI	WG
VA220A	S#	KLO	7.4	7.8		MEC	VA	C	6.3	800	750	80	1000	1000						32		RI	WG
VA220B	S#	KLO	7.1	7.4		MEC	VA	C	6.3	800	750	80	1200	1000						36		RI	WG
VA220C	S#	KLO	6.9	7.1		MEC	VA	C	6.3	800	750	80	1200	1000						36		RI	WG
VA220D	S#	KLO	6.6	6.9		MEC	VA	C	6.3	800	750	80	1200	1000						36		RI	WG
VA220E	S#	KLO	6.1	6.4		MEC	VA	C	6.3	800	750	80	1200	1000						36		RI	WG
VA220F	S#	KLO	5.9	6.2		MEC	VA	C	6.3	800	750	80	1200	1000						36		RI	WG
VA220G	S#	KLO	6.4	6.6		MEC	VA	C	6.3	800	750	80	1200	1000						36		RI	WG
VA220J	#	KLO	4.9	5.2		MEC	VA	C	6.3	900	750	80	1400	380						39		RI	WG
VA220Z	S#	KLO	7.8	8.1		MEC	VA	C	6.3	800	750	80	1000	1000						30		RI	WG
Z220/1G		KLO	1.7	2.3		VT	ST	C	6.3	750	350	50	250	250						16		RE	CO

TYPE NUMBER	CODE	KIND	FREQUENCY		DUTY CYCLE	TUNING	MFR	OPERATION	E_f	I_f	MAXIMUM							TYPICAL					
			Min	Max							E_b	I_k	P_o	REFLECTOR COLLECTOR	E_{g_1}	HELIX VOLTAGE	GAIN	NF	PULL FACTOR	BAND WIOTH	MAG FIELD	CAVITY	COUPLING
			G_c	G_c	10^4				v	ma	v	ma	mw	v	v	v	db	db		Mc	gauss		
BL221	#	MAG	69.0	70.5	5	FX	BL	P					10K										WG
MA221		MAG	7.5	8.8		FX	MA	C			420	15	1000										WG
MA221		MAG	7.5	8.8	1K	FX	MA	P			500	150	10W										WG
VA221C	#	KLO	7.0	7.2		MEC	VA	C	6.3	440	330	35	40	500						40		RI	WG
VA221K	#	KLO	5.8	6.2		MEC	VA	C	6.3	440	330	35	40	500						40		RI	WG
MA222		MAG	9.3	9.4	20	FX	MA	C			5500	4500	1000										CO
SK222A	S	KLO	7.4	7.8		MEC	SY	C	6.3	900	750	80	1100	1000						60		RI	WG
SK222B	S	KLO	7.1	7.4		MEC	SY	C	6.3	900	750	80	1100	1000						60		RI	WG
SK222C	S	KLO	6.9	7.1		MEC	SY	C	6.3	900	750	80	1100	1000						60		RI	WG
SK222D	S	KLO	6.6	6.9		MEC	SY	C	6.3	900	750	80	1100	1000						60		RI	WG
SK222E	S	KLO	6.1	6.4		MEC	SY	C	6.3	900	750	80	1100	1000						60		RI	WG
SK222F	S	KLO	5.9	6.2		MEC	SY	C	6.3	900	750	80	1100	1000						60		RI	WG
SK222Z	S	KLO	7.8	8.1		MEC	SY	C	6.3	900	750	80	1000	1000						60		RI	WG
STL222	#	TWA	1.0	2.0		FX	SP	C	6.3	3200	1000	35	2000		35		48				IM		CO
VA222A	S#	KLO	7.4	7.8		MEC	VA	C	6.3	800	750	80	1000	1000						32		RI	WG
VA222B	S#	KLO	7.1	7.4		MEC	VA	C	6.3	800	750	80	1100	1000						37		RI	WG
VA222C	S#	KLO	6.9	7.1		MEC	VA	C	6.3	800	750	80	1100	1000						37		RI	WG
VA222D	S#	KLO	6.6	6.9		MEC	VA	C	6.3	800	750	80	1100	1000						37		RI	WG
VA222E	S#	KLO	6.1	6.4		MEC	VA	C	6.3	800	750	80	1100	1000						37		RI	WG
VA222F	S#	KLO	5.9	6.2		MEC	VA	C	6.3	800	750	80	1100	1000						37		RI	WG
VA222G	S#	KLO	6.4	6.6		MEC	VA	C	6.3	800	750	80	1100	1000						37		RI	WG
VA222Z	S#	KLO	7.8	8.1		MEC	VA	C	6.3	800	750	80	1000	1000						30		RI	WG
BL223		MAG	5.4	5.9			BL		5.0	700	1900	1100	400W										CO
BL223A	#	MAG	5.4	5.9		MEC	BL						400W								IM	CO	
SAC225	#	KLA	4.2	6.8		MEC	SP	C	4.8	56A	130K	98A	3M				35					3I	WG
VA225A	#	KLO	7.5	8.5		MEC	VA	C	6.3	800	750	75	1000	350						40		RI	WG
VA225B	#	KLO	7.0	8.0		MEC	VA	C	6.3	800	750	75	1000	350						40		RI	WG
VA225C	#	KLO	7.0	8.0		MEC	VA	C	6.3	800	750	75	1000	350						40		RI	WG
BL226		MAG	9.1	9.5			BL		5.0	500	1300	900	90W										CO
SRU226	#	KLO	15.0	17.0		MEC	SP	C	6.3	550	300	35	45	160						45		RI	WG
BL227		MAG	8.7	9.1			BL		5.0	500	1300	900	90W										CO
BL228		MAG	8.3	8.7			BL		5.0	500	1300	900	90W										CO
BL230		MAG	5.4	5.9			BL		5.0	700	2800	1900	1K										CO
SRX230	S#	KLO	8.5	10.5		MEC	SP	C	6.3	450	300	26	30	300						40		RI	WG
V230A/1K	S	KLO	1.7	3.7		MEC	ST	C	6.3	300	350	65	300	370	40					2	1200	EX	CO

TYPE NUMBER	CODE	KIND	FREQUENCY		DUTY CYCLE	TUNING	MFR	OPERATION	E_f	I_f	MAXIMUM							TYPICAL					
			Min	Max							E_b	I_k	P_o	REFLECTOR COLLECTOR	E_{g_1}	HELIX VOLTAGE	GAIN	NF	PULL FACTOR	BAND WIOTH	MAG FIELO	CAVITY	COUPLING
			G_c	G_c	10^4				v	ma	v	ma	mw	v	v	v	db	db		Mc	gauss		
BL231		MAG	5.3	6.0			BL		5.0	500	1400	1000	200W										CO
SRX231	S#	KLO	8.5	10.5		MEC	SP	C	6.3	450	300	26	30	300						40		RI	WG
X231D		TWA	8.0	10.0			1T	C			950	400U	400U				15	12					
SP232F		MAG	2.6				KK		7.0	4000	1200		8000								1200		
SRX232	S#	KLO	7.0	8.6		MEC	SP	C	6.3	450	400	55	100	300						20		RI	WG
VA232	#	KLO	9.2	10.0		MEC	VA	C	6.3	1200	375	45	335	300						40		R1	WG
SRX233	S#	KLO	7.0	8.6		MEC	SP	C	6.3	450	400	55	100	300						20		RI	WG
V233A/1K	S	KLO	2.7	4.2		MEC	ST	C	6.3	300	380	65	300	400	40					2	1200	EX	CO
STP234		TWA	0.2	0.5			SP	C			590	85A	2W				35				IM		
BL235	#	MAG	51.0	54.0	10	FX	BL	P					10K										WG
STL235		TWA	0.5	1.0			SP	C	6.3	2500	750	80	2000		24		37	35			IM		CO
V235A/1K	S	KLO	2.7	4.2		MEC	ST	C	6.3	300	370	65	500	390	40					16	1200	EX	CO
BL236	#	MAG	54.0	57.0	10	FX	BL	P					10K										WG
STC236		TWA	5.9	8.2			SP	C	6.3	750	2600	40	10W				35	28			IM		WG
BL237	#	MAG	57.0	60.0	10	FX	BL	P					10K										WG
V237C/1K	S	KLO	3.6	3.8		MEC	ST	C	6.3	260	285	65	350	300	40					14	1200	EX	WG
VA237		KLO	12.2	12.7		MEC	VA						700										
Z237/1G		KLO	3.5	3.5		MEC	ST	C	6.3	750	350	55	125	200	150					42		RE	WG
V238A/1K		KLO	3.5	4.3		MEC	ST	C	6.3	250	400	50	900	420	40					10	1400	EX	WG
SOX239	#	KLO	8.2	12.4		FX	SP	C	6.3	500	2900	17	1000							6		21	WG
V239C/1K	S	KLO	3.8	4.0		MEC	ST	C	6.3	260	280	65	350	300	40					14	1200	EX	WG
VA239	#	KLO	34.0	35.6		FX	VA						250										
Z239/1G	S	KLO	3.6	4.2		MEC	ST	C	6.3	1000	1100	70	1200	700						45		RE	WG
SAX240	#	KLA	X				SP	C	6.3	2800	6250	195	200W				30			10	IM	31	WG
V240C/1K	S	KLO	4.0	4.1		MEC	ST	C	6.3	260	280	65	350	300	40					20	1200	EX	WG
V240C/2K	S	KLO	3.9	4.0		MEC	ST	C	6.3	260	270	65	350	300	40					20	1200	EX	WG
VA240	#	KLO	17.0	19.0		FX	VA						200										
SOX241	#	KLO	8.2	12.4		FX	SP	C	6.3	300	900	33	1500							15		21	WG
V241C/1K	S	KLO	4.0	4.2		MEC	ST	C	6.3	260	285	65	350	300	40					14	1200	EX	WG
BL242		MAG	5.4	5.9			BL		5.0	700	1900	1100	400W										CO
VA242	#	KLO	9.8	9.8		FX	VA	C	6.3	1200	525	70	915	350						55		RI	WG
BL243		MAG	5.4	5.9			BL		5.0	500	1400	1000	200W										CO
V243A/1K		KLO	4.1	4.6		MEC	ST	C	6.3	300	290	65	750	310	40					20	1200	EX	WG
VA244A		KLO	5.8	6.6		MEC	VA	C	6.3	750	800	80	50	475								RI	WG
VA244B		KLO	6.5	7.3		MEC	VA	C	6.3	750	800	80	50	475								RI	WG

TYPE NUMBER	CODE	KIND	FREQUENCY		DUTY CYCLE	TUNING	MFR	OPERATION	E_f	I_f	MAXIMUM							TYPICAL					
			Min	Max							E_b	I_k	P_o	REFLECTOR COLLECTOR	E_{g_1}	HELIX VOLTAGE	GAIN	NF	PULL FACTOR	BAND WIDTH	MAG FIELD	CAVITY	COUPLING
			G_c	G_c	10^4				v	ma	v	ma	mw	v	v	v	db	db		Mc	gauss		
VA244C		KLO	7.1	7.9		MEC	VA	C	6.3	750	800	80	50	475								RI	WG
X244D		TWA	1.0	1.2	320		IT	P			20K	6000	50K				30						
SOU245	#	KLO	13.0	13.5		FX	SP	C	6.3	1700	1750	140	5000							25		2I	WG
V245C/1K		KLO	4.4	4.6		MEC	ST	C	6.3	300	260	65	200	300	40					16	1200	EX	WG
SAC246	#	KLA	C		1K		SP	P			3000	160	30W		30		23					3I	CO
V246A/1K	S	KLO	4.4	4.8		MEC	ST	C	6.3	300	250	65	450	270	20					16	1200	EX	WG
V246A/2K		KLO	4.6	4.9		MEC	ST	C	6.3	300	250	65	250	270	20					16	1200	EX	WG
VA246	#	KLO	11.0	14.0		FX	VA						500										
V247C/1K		KLO	4.6	4.8		MEC	ST	C	6.3	300	260	65	200	300	40					16	1200	EX	WG
VA247C/1K		KLO	4.4	5.0		MEC	ST	C	6.3	300	390	65	300	410	40					6	1300	EX	WG
STL248		TWA	0.4	1.0			SP	C	12.6	2500	1800	700	200W				33				500		CO
SRX249		KLO	8.5	10.5		MEC	SP	C	6.3	438	300	35	30	300						30		RI	WG
V249C/1K		KLO	4.8	5.0		MEC	ST	C	6.3	300	290	65	200	310	40					16	1200	EX	WG
VA249	#	KLO	11.0	11.0		FX	VA	C	6.3	450	350	50	121	350						30		RI	WG
STC250		TWA	3.3	4.9			SP	C	6.3	1500	2600	40	10W				35	28			IM		WG
VA250	#	KLO	68.0	74.0		MEC	VA						20										
CV251		MAG	X		2		TH	P	6.3	800	20K	30A	150K								3250		WG
SOX254	#	KLO	8.2	12.4		FX	SP	C	6.3	800	515	15	450							12		2I	WG
STP256		TWA	0.2	0.5	5K		SP	P	12.6	2500	850	80	1000		22		30				IM		CO
STL257		TWA	0.5	1.0			SP	C	6.3	2500	750	80	2000		24		32	40			IM		CO
Y257/1E		BWO	4.0	7.5		VT	ST	C	6.3	900	300	15	100			2K					IM		CO
Y257/2E		BWO	4.0	7.5		VT	ST	C	6.3	900	300	15	100			2K					IM		CO
SOC258	#	KLO	C			FX	SP	C	6.3	750	3100	20	1000							2		2I	WG
X258B		TWA	2.0	4.0			IT	C	6.3	1450	600	8	300				35				400		CO
X258C		TWA	2.0	4.0			IT	C			700	8	250				25						
SAC259	#	KLA	C		40	FX	SP	P	6.3	750	6600	214	300W		1K		30				IM	3I	WG
STL260		TWA	1.2	1.4	75		SP	P	6.3	2500	2000	200			48		60				IM		CO
SRX262	#	KLO	8.2	12.4		FX	SP	C	6.3	1300	400	45	100	400						40		RI	WG
V262		KLO	8.4	10.0		MEC	VA	C	6.3	1200	400	42	215	290						45		RI	WG
QK264	S*	MAG	1.2	1.4	12	MEC	RA	P	3.0	85A	75K	100A	2M								IM		
STX264	#	TWA	5.4	10.0			SP	C	11.0	1000	2200	20	1000		25		30	32			IM		CO
SRX265	#	KLO	8.2	8.8		MEC	SP	C	6.3	1300	700	58	1000	600						12		RI	WG
SRU266	#	KLO	15.0	17.0		MEC	SP	C	6.3	550	300	35	20	100								RI	WG
X267C		TWA	7.5	10.0	1K		IT	P			2500	210	50W				23						
V271C/1M		KLO	7.0	7.3		MEC	ST	C	6.3	280	600	65	750	600	50					14		IM	EX	WG

TYPE NUMBER	CODE	KIND	FREQUENCY		DUTY CYCLE	TUNING	MFR	OPERATION	E_f	I_f	MAXIMUM							TYPICAL					
			Min	Max							E_b	I_k	P_o	REFLECTOR COLLECTOR	E_{g_1}	HELIX VOLTAGE	GAIN	NF	PULL FACTOR	BAND WIDTH	MAG FIELD	CAVITY	COUPLING
			G_c	G_c	10^4				v	ma	v	ma	mw	v	v	v	db	db		Mc	gauss		
X271		TWA	1.0	2.0			1T	C			980	50	1000				30						
V275C/1M		KLO	7.3	7.6		MEC	ST	C	6.3	280	600	65	750	600	50					14	IM	EX	WG
X275		BWO	28.0	35.0			IT	C			3000	10	40										
X276		TWA	1.0	2.0			IT	C			380	14	100				30						
X277		TWA	1.0	2.0	1K		IT	P			3500	380	100W				20						
X281		TWA	4.0	8.0			IT	C			850	8	100				25						
X282		TWA	4.0	8.0			IT	C			2700	65	10W				25						
X283		TWA	4.0	8.0	100		IT	P			9500	2500	1K				25						
X285		BWA	1.1	2.0			1T	C			1380	25					5						
X286		BWO	1.1	2.0			IT	C			1400	25	50										
X287		TWA	0.6	1.2			1T	C			125	500U	1				20	11					
X288		BWA	0.6	1.2			IT	C			1500	25					5						
QK289		KLO	27.3	30.0		MEC	RA	C	6.3	580	2500	15	20	450	250							RI	WG
X289		BWO	0.6	1.2			IT	C			1500	25	50										
QK290		KLO	29.7	33.5		MEC	RA	C	6.3	580	2500	15	20	450	250							RI	WG
V290	S#	KLO	8.5	10.5		MEC	VA	C	6.3	1200	385	74	120	1000						65		RI	WG
QK291		KLO	33.5	36.2		MEC	RA	C	6.3	580	2500	15	18	450	250							RI	WG
QK292		KLO	35.1	39.7		MEC	RA	C	6.3	580	3600	20	5	450	200							RI	WG
QK293		KLO	37.1	42.6		MEC	RA	C	6.3	580	3600	20	5	450	200							RI	WG
QK294		KLO	41.7	50.0		MEC	RA	C	6.3	580	3600	20	5	450	200							RI	WG
QK295		KLO	50.0	60.0		MEC	RA	C	6.3	580	3600	20	2	450	200							R1	WG
X295		TWA	0.6	1.0			IT	C			1000	125	15W				33						
X296		TWA	8.0	12.0	100		1T	P			10K	2000	1K				28						
K300		KLO	9.3	9.5		MEC	EE	C	6.3	600	350	35	30	150						30		RI	WG
Z300B		MAG	2.0				KK		2.5	3000	2000		10W								3500		
K301	S	KLO	2.5	3.5		MEC	EE	C	6.3	600	350	35	30	400						15		RE	CO
X301		TWA	8.0	12.0			IT	C			1300	6	50				30						
Z301B		MAG	1.5				KK		3.0	3000	2500		20W								2500		
K302	S	KLO	9.3	9.5		MEC	EE	C	6.3	600	350	35	30	165						30		R1	WG
X302		TWA	8.0	12.0			1T	C			3700	60	5000				20						
Z302B		MAG	1.0				KK		8.5	3600	3000		60W								2000		
SFD303		MAG	9.4	9.4		FX	VA	P					1M										
Z303B		MAG	0.9				KK		8.5	3600	3500		150W								1800		
Z304B		MAG	0.6				KK		8.0	7000	4500		300W								1300		
304H	S	TWA	2.0	4.0	100		HP	P	6.3	3000	7000	1250	1K				37						CO

NUMERICAL LISTING

TYPE NUMBER	CODE	KIND	FREQUENCY		DUTY CYCLE	TUNING	MFR	OPERATION	E_f	I_f	MAXIMUM							TYPICAL					
			Min	Max							E_b	I_k	P_o	REFLECTOR COLLECTOR	E_{g_1}	HELIX VOLTAGE	GAIN	NF	PULL FACTOR	BAND WIDTH	MAG FIELD	CAVITY	COUPLING
			G_c	G_c	10^4				v	ma	v	ma	mw	v	v	v	db	db		Mc	gauss		
K305	S	KLO	9.2	9.5		MEC	EE	C	6.3	600	350	35	25	170						35		RI	WG
Z305B		MAG	0.2				KK		11.0	10A	8000		1K								1000		
QK306	S	KLO	18.0	22.0		MEC	RA	C	6.3	580	2300	9	40	500	100					40		RI	WG
X306		TWA	8.0	12.0	400		IT	P			3700	60	5000				20						
306H		TWA	5.4	5.9	200		HP	P	11.0	5900	26K	6500	20K		180		43				IM		WG
307H	#	TWA	8.5	9.5	100		HP	P	15.0	5000	40K	11A	50K				54						WG
K308	S	KLO	8.8	8.9		MEC	EE	C	6.3	600	350	35	40	220						40		RI	WG
308H	#	TWA	8.6	9.8	100		HP	P	12.2	4000	27K	6400	15K				52				IM		WG
310H	#	TWA	8.2	11.4	200		HP	P	5.5	2800	11K	1780	1K		150		40				IM		WG
K311		KLO	8.5	9.5		MEC	EE	C	6.3	600	350	35	45	365						30		RI	WG
311H	S	TWA	2.0	4.0	100		HP	P	6.3	2900	8000	7100	1K		200		36				IM		CO
K312	S	KLO	9.4	9.6		MEC	EE	C	6.3	600	350	35	30	180						30		RI	WG
QK312		MAG	2.4	2.5		FX	RA	C	8.5	32A	7000	2500	2K								IM		
312H	S#	TWA	2.0	4.0	50		HP	P	6.3	2900	8000	7100	1K		350		36				IM		CO
K313		KLO	9.6	9.8		MEC	EE	C	6.3	600	350	35	25	185						30		RI	WG
313H	S	TWA	2.0	4.0	50		HP	P	6.3	4000	7000	1300	1K				36				IM		CO
X314		TWA	1.0	2.0			IT	C			1400	90	10W										
314H	#	TWA	1.9	2.1			HP	C	4.0	500	720		2500	290		580	30				IM		CO
C0315	S	CAR	1.0	2.0		VT	CS	C	6.3	3100	300	70	400	1200	20	1K					IM		CO
K315		KLO	9.1	9.2		MEC	EE	C	6.3	600	350	35	20	270						20		RI	WG
315H	#	BWO	15.8	17.2		VT	HP	C	6.3	840	150	6	50			1K					IM		WG
316H	S#	BWO	12.4	18.0		VT	HP	C	6.3	840	300	12	67			2K			10		IM		WG
K317		KLO	8.2	8.3		MEC	EE	C	6.3	600	350	35	20	320						30		RI	WG
317H		BWO	10.7	16.2		VT	HP	C	6.3	840	150	6	65			2K					IM		WG
318H		BWO	15.0	21.4		VT	HP	C	6.3	840	150	6	30			2K					IM		WG
QK319		MAG	16.3	16.7	10	FX	RA	P	5.0	6000	16K	17A	40K								IM		
X319		TWA	5.0	6.0			IT	C			2700	60	10W				27						
319H		TWA	8.4	9.5	100		HP	P	12.0	3500	25K	6500	20K				54				IM		WG
X320		TWA	5.0	6.0	50		IT	P			11K	2000	2K				27						
K321		KLO	9.4	9.6		MEC	EE	C	6.3	600	350	35	25	180						30		RI	WG
X321		BWO	7.0	13.0			IT	C			2000	12	10										
321H		TWA	2.8	3.2	60		HP	P	11.0	14A	55K	28A	250K				26				IM		WG
X322		TWA	0.2	0.5			IT	C			150	10	300				35						
K323		KLO	9.6	9.8		MEC	EE	C	6.3	600	350	35	25	185						30		RI	WG
X323		TWA	0.5	1.0			IT	C			200	5	150				35						

TYPE NUMBER	CODE	KIND	FREQUENCY		DUTY CYCLE	TUNING	MFR	OPERATION	E_f	I_f	MAXIMUM							TYPICAL					
			Min	Max							E_b	I_k	P_o	REFLECTOR COLLECTOR	E_{g_1}	HELIX VOLTAGE	GAIN	NF	PULL FACTOR	BAND WIDTH	MAG FIELD	CAVITY	COUPLING
			G_c	G_c	10^4				v	ma	v	ma	mw	v	v	v	db	db		Mc	gauss		
323H		BWA	2.0	4.0		VT	HP	C			2750	700U	1				20	5		8	750		CO
K324	S	KLO	9.0	10.0		MEC	EE	C	6.3	600	350	35	45	400						30		RI	WG
QK324		MAG	15.8	16.2	28	FX	RA	P	4.8	12A	30K	14A	70K								IM		
X324		TWA	2.4	5.1	200		IT	P			4000	3500	1M				33						
324H		BWA	8.5	9.6		VT	HP	C			1500	400U	100U				20	6		12	1000		WG
X325		TWA	0.5	1.0			IT	P			4000	3500	1M				33						
X326		TWA	7.0	11.0	100		IT	P			10K	2300	1M				30						
326H	S#	BWO	12.4	18.0		VT	HP	C	6.3	840	2000	12	70	2000	150	2K			10		1M		WG
QK327		MAG	2.7	2.8	7	MEC	RA	P	8.2	78A	61K	115A	4M										
X327		TWA	1.0	2.0	200		IT	P			5000	2000	1M				33						
K328		KLO	9.6	9.7		MEC	EE	C	6.3	600	350	35	25	190						30		RI	WG
X328		TWA	4.0	5.9	400		IT	P			2500	65	2000				33						
X332		TWA	1.0	2.0			IT	C			1200	17	1000				30						
X333		TWA	1.0	2.0			IT	C			2000	14	10W				30						
K335	S	KLO	9.6	9.7		MEC	EE	C	6.3	600	350	35	25	180						30		RI	WG
K336	S	KLO	8.5	10.0		MEC	EE	C	6.3	1700	1300	180	6500							22		RI	WG
K337	#	KLO	9.0	10.0		MEC	EE	C	6.3	600	350	35	45	400						24		RI	WG
X337		TWA	8.0	12.0	100		IT	P			3700	70	3000				34						
K339		KLA	1.3	1.4		MEC	EE	C	6.0	30A	17K	1800	10K				35			4	400	4I	WG
K340		KLO	9.3	9.5		MEC	EE	C	6.3	600	300	25	35	175						40		RI	CO
X341		TWA	0.5	1.0			IT	C			365	35	1000										
K342	#	KLO	8.5	9.0		MEC	EE	C	6.3	600	350	35	45	275						35		RI	WG
K343		KLO	12.0	14.5		MEC	EE	C	6.3	600	350	30	40	250						80		RI	WG
K345	S	KLO	5.9	8.0		MEC	EE	C	6.3	600	750	72	1000	400						30		RI	WG
K346		KLO	14.5	17.0		MEC	EE	C	6.3	600	350	30	45	250						120		RI	WG
K347		KLA	0.6	0.6	20	MEC	EE	P	6.0	30A	75K	20A	600K				33				250	3E	CO
K350		KLO	8.5	10.0		MEC	EE	C	6.3	1700	980	130	1200							12		2I	WG
K351	S#	KLO	8.5	9.6		MEC	EE	C	6.3	1200	300	40	65	185						35		RI	WG
K352		KLA	3.0	3.0	15	FX	EE	P	4.3	83A	210K	100A	6M				32					3I	WG
K353	S	KLO	10.5	12.2		MEC	EE	C	6.3	1200	400	60	250	450						60		RI	WG
K357		KLO	10.7	10.7		MEC	EE	C	6.3	600	250	15	12	100						30		RI	WG
K358	S	KLO	10.5	12.2		MEC	EE	C	6.3	1200	400	60	250	450						60		RI	WG
K359	#	KLO	8.1	8.8		MEC	EE	C	6.3	1200	350	45	90	150						55		RI	WG
K361		KLO	10.7	10.7		MEC	EE	C	6.3	600	300	25	27	200						20		RI	WG
QK362		MAG	9.3	9.5	20	MEC	RA	P	5.0	600	2000	1000	50W								IM		

TYPE NUMBER	CODE	KIND	FREQUENCY		DUTY CYCLE	TUNING	MFR	OPERATION	E_f	I_f	MAXIMUM							TYPICAL					
			Min	Max							E_b	I_k	P_o	REFLECTOR COLLECTOR	E_{g_1}	HELIX VOLTAGE	GAIN	NF	PULL FACTOR	BAND WIDTH	MAG FIELD	CAVITY	COUPLING
			G_c	G_c	10^4				v	ma	v	ma	mw	v	v	v	db	db		Mc	$gauss$		
QK366A	S#	MAG	9.2	9.3	10	FX	RA	P	6.3	2900	16K	14A	75K						15	4	1M		WG
QK367		MAG	9.0	9.4	10	FX	RA	P	6.3	1000	16K	16A	50K								1M		
CV370	X	MAG	9.2	9.3	10	FX		P	6.3	550	5700	4500	8K						15		1M		WG
QK381		KLO	4.1	4.4		MEC	RA	C	6.3	440	250		4	87						30		RI	CO
QK389		MAG	23.8	24.3	7	FX	RA	P	5.0	2900	14K	18A	50K								1M		
QK393		MAG	4.3	4.3		FX	RA	C	6.3	600	300	30	1000								1M		CO
G400		TWA	8.2	12.4		VT	GL	C	7.0	800	800	8	100	2100		2K	24				900		CO
G-400P		TWA	8.2	12.4			GL						100										
VA401	#	KLA	9.8	9.8		FX	VA						10									31	
VA403	#	KLA	13.3	13.3		FX	VA						5000									41	
OK404		KLO	5.9	6.4		MEC	RA	C	6.3	440	300		120	275						20		RI	WG
QK412	S	KLO	5.1	5.9		MEC	RA	C	6.3	440	300		100	160								RI	WG
OK414		KLO	9.7	10.2		MEC	RA	C	6.3	440	300		20	183						50		RI	WG
G420		TWA	8.2	12.4		VT	GL	C	7.0	800	400	13	100	2100	75	2K	20				900		CO
G420		TWA	8.2	12.4		VT	GL	P	7.0	800	400	13	1000	2100	100	2K	30				900		CO
C0421X		CAR	8.5	16.0		VT	CS	C	6.3	2200	200	18	10	1800	20	2K					1M		CO
QK422		KLO	7.1	8.1		MEC	RA	C	6.3	440	350	42	100	350						25		RI	WG
QK434		AMO	1.2	1.4		MEC	RA	C			36K	37A	600K								1150		CO
OK448		KLO	12.0	13.8		MEC	RA	C	6.3	440	300		85	275						60		RI	WG
OK456		MAG	5.4	5.4	10	FX	RA	P	6.3	1500	16K	20A	75K								1M		
OK457		MAG	5.5	5.8	20	MEC	RA	P	5.0	630	1500	900	200W								1M		
QK461		KLO	5.9	6.4		MEC	RA	C	6.3	440	300		120	175						30		RI	WG
QK463		KLO	24.5	27.5		MEC	RA	C	6.3	580	1800		40	250	125					40		RI	WG
OK470	S	MAG	1.2	1.4	12	MEC	RA	P	3.0	85A	75K	100A	2M								1M		
M501	S	MAG	2.9	3.0	10	FX	EE	P	5.0	2600	27K	40A	570K						35		2300		CO
M501A	S	MAG	2.9	3.0	10	FX	EE	P	5.0	2600	27K	40A	570K						35		2300		CO
M501B	S	MAG	2.9	3.0	10	FX	EE	P	5.0	2600	27K	40A	570K						35		2300		CO
M502A	S	MAG	9.3	9.4	5	FX	EE	P	12.6	2250	21K	25A	200K						15		1M		WG
M503A		MAG	9.3	9.4	25	FX	EE	P	6.3	500	5500	4500	10K						15		1M		WG
M504		MAG	9.3	9.4	6	FX	EE	P	5.0	40A	35K	50A	750K						15		7000		WG
VA504B	#	KLO	13.3	13.3		FX	VA						15W									21	
M505		MAG	9.4	9.5	10	FX	EE	P	3.0	3500	11K	12A	60K						15		3250		WG
M506A	S	MAG	9.4	9.5		FX	EE	P	3.0	3500	11K	12A	50K						15		3250		WG
M507	S	MAG	3.2	3.4	10	FX	EE	P	5.0	2600	27K	40A	425K								2100		CO
M508	S	MAG	9.2	9.3	25	FX	EE	P	6.3	500	5500	5500	10K						15		1M		WG

TYPE NUMBER	CODE	KIND	FREQUENCY		DUTY CYCLE	TUNING	MFR	OPERATION	E_f	I_f	MAXIMUM							TYPICAL					
			Min	Max							E_b	I_k	P_o	REFLECTOR COLLECTOR	E_{g_1}	HELIX VOLTAGE	GAIN	NF	PULL FACTOR	BAND WIDTH	MAG FIELD	CAVITY	COUPLING
			G_c	G_c	10^4				v	ma	v	ma	mw	v	v	v	db	db		Mc	$gauss$		
QK508		MAG	0.4	0.4	18	FX	RA	P	7.0	55A	55K	97A	2M								IM		CO
VA508	#	KLO	8.0	9.5		FX	VA						1000										
M509	S	MAG	8.7	8.8	25	FX	EE	P	6.3	500	5500	5500	10K						15		IM		WG
M513A	S	MAG	9.3	9.4	25	FX	EE	P	6.3	500	7500	8500	20K						15		IM		WG
QK518		BWO	2.0	4.0		VT	RA	C	6.3	1300	250	20	1000		100	2K					IM		CO
M519	S	MAG	3.4	3.6	10	FX	EE	P	5.0	2600	27K	40A	425K								2300		CO
QK520		AMA	1.2	1.4			RA	C			40K	35A					20			125	1325		
M521	S	MAG	9.6	9.7	10	FX	EE	P	3.0	3500	11K	12A	45K						15		3250		WG
QK522		BWO	3.6	7.2		VT	RA	C	6.3	2200	300	10	400		100	2K					IM		CO
M523	S	MAG	9.6	9.7	10	FX	EE	P	13.8	3250	22K	28A	248K						15		IM		WG
QK523		TWA	6.4	7.2			RA	C	6.3	600	2300	30	4000	1000	5	2K							WG
X523C		KLO	5.3	6.0		MEC	EI	C	6.3	840	350	50	100	350						50		RI	WC
M525	S	MAG	2.7	2.9	12	FX	EE	P	8.5	9000	36K	80A	1M						7		1800		WG
QK526		TWA	6.4	7.2			RA	C	6.3	350		6		1200	100	1K	23						
M528		MAG	3.0	3.1	10	FX	EE	P	6.0	1250	22K	25A	220K						7		2050		CO
QK528		BWO	3.6	7.2		VT	RA	C	6.3	1000	150	5	750		100	2K					IM		CO
M529	S	MAG	8.8	9.0	10	FX	EE	P	13.8	3250	22K	28A	248K						15		IM		WG
QK529		BWO	6.7	11.0		VT	RA	C	6.3	2200	300	10	100		100	2K					IM		CO
QK531		KLO	6.6	6.9		MEC	RA	C	6.3	440	300		120	275						15		RI	WG
QK532		KLO	6.9	7.1		MEC	RA	P	6.3	440	300		120	275						15		RI	WG
QK533		BWO	2.4	4.7		VT	RA	C	6.3	2400	275	25	500		100	1K					IM		CO
TW534		TWA	2.0	4.0			SY	P	6.3	1300	500	45	2000	975		825	39			2K	750		CO
M535		MAG	9.5	9.6	25	FX	EE	P	6.3	500	5500	5500	9K						15		IM		WG
QK535		BWO	7.5	15.0		VT	RA	C	6.3	2400	200	10	120		100	2K					IM		CO
M537		MAG	8.8	8.8	25	FX	EE	P	6.3	500	5500	5500	10K						15		IM		WG
M538A	S	MAG	9.2	9.3	15	FX	EE	P	13.8	3250	22K	28A	248K						15		IM		WG
TW538		TWA	1.0	2.0	150		SY	P	6.3	2750	8000	2500	1K	8000	250	8K	33			1K	600		CO
M539	S	MAG	8.7	8.8	10	FX	EE	P	13.8	3250	22K	28A	248K						15		IM		WG
QK540		BWO	2.5	3.3			RA	C			5200	300	180W	850	150								
QK542		TWA	4.0	8.0			RA	C	6.3	1000	1500	40	1000	1500	300		35				IM		CO
QK543		BWO	4.8	9.6		VT	RA	C	6.3	2000	350	10	150		100	2K					IM		CO
QK544		BWO	1.6	3.2		VT	RA	C	6.3	3000	200	10	1000		100	2K					IM		CO
M546	S	MAG	9.7	9.8	10	FX	EE	P	13.8	3250	22K	28A	248K						15		IM		WG
QK546		BWO	1.0	2.0		VT	RA	C	6.3	3000	250	20	1000		100	1K					IM		CO
M547	S	MAG	9.8	10.0	10	FX	EE	P	13.8	3250	22K	28A	248K						15		IM		WG

NUMERICAL LISTING

TYPE NUMBER	CODE	KIND	FREQUENCY		DUTY CYCLE	TUNING	MFR	OPERATION	E_f	I_f	MAXIMUM							TYPICAL						
			Min	Max							E_b	I_k	P_o	REFLECTOR COLLECTOR	E_{g_1}	HELIX VOLTAGE	GAIN	NF	PULL FACTOR	BAND WIDTH	MAG FIELD	CAVITY	COUPLING
			G_c	G_c	10^4				v	ma	v	ma	mw	v	v	v	db	db		Mc	gauss		
QK547		KLO					RA	C	6.3	1200	300	48	70	500						20		RI	WG
M548		MAG	9.0	9.2	10	FX	EE	P	3.0	3500	14K	12A	50K						12		3800		WG
M549	S	MAG	8.5	8.7	10	FX	EE	P	13.8	3250	22K	28A	248K						15		IM		WG
QK549		KLO	5.8	6.4		MEC	RA	C	6.3	440	300		120	310						15		RI	WG
M554		MAG	1.3	1.4	15	FX	EE	P	20.0	14A	39K	150A	3M						4		925		WG
M555		MAG	14.0	16.0	10	FX	EE	P	12.6	2250	16K	15A	65K						25		IM		WG
M559	S	MAG	9.3	9.4	25	FX	EE	P	6.3	500	8000	8000	20K						15	2	IM		WG
M561		MAG	3.0	3.1	20	FX	EE	P	10.0	1100	18K	25A	80K						6		1800		CO
X563K	#	KLA	6.5	7.1		MEC	EI	C	6.3	1000	3000	130	60W				35			13		4I	WG
X563L	#	KLA	5.4	5.8		MEC	EI	C	6.3	1000	3000	130	60W				35			9		4I	WG
X563M	#	KLA	5.9	6.4		MEC	EI	C	6.3	1000	3000	130	60W				35			10		4I	WG
M565		MAG	1.2	1.4	25	FX	EE	P	48.0	14A	48K	240A	5M								800		WG
M566		MAG	2.8	2.9	15	FX	EE	P	12.0	15A	42K	176A	2M						7	1	1640		WG
M569		MAG	2.8	3.0	15	FX	EE	P	12.0	15A	43K	170A	2M						7		1580		WG
M570		MAG	3.0	3.1	15	FX	EE	P	12.0	15A	43K	170A	2M						7		1580		WG
M573		MAG	2.8	3.0	15	FX	EE	P	12.0	15A	41K	170A	2M						7		1520		WG
M574		MAG	3.0	3.1	15	FX	EE	P	12.0	15A	44K	155A	2M						7		1580		WG
X576		KLA	0.6	0.7		MEC	EI	P					200K					60		1		4I	
TW591		TWA	8.0	10.5	50		SY	P	6.3	1500	8000	1500	1K	8000	380	8K	32			2K	2800		CO
X597		KLA	2.4	3.0			EI						20K				30					3I	
X600		KLA	1.7	2.4			EI	C		40A	17K	1800	10K		200		50			10		4I	
VA601		TWA	1.0	2.0			VA	C					50W				40						CO
X602		KLA	0.4	0.6			EI	C					50K				40					4I	
X602K		KLA	0.4	0.5	5K	MEC	EI	P	11.0	23A	50K	9000	155K		1K		45					4E	CO
QK610		BWO	6.7	11.4		VT	RA	C	6.3	1500	250	35	300		150	2K					IM		CO
TW613		TWA	8.0	11.0			SY	C	6.3	1300	700	1	5	1150		1K	40			3K	500		CO
TW620A		TWA	1.0	2.0			SY	C	6.3	1400		55	2000	750		600	39			1K	600		CO
TW621		TWA	4.0	8.0			SY	C	6.3	1500		50	2000	150	150	3K	35				1150		CO
QK622		AMA	2.9	3.1	50		RA	P			54K	60A	3M				8				IM		WG
QKS622		AMA	2.9	3.1	50		RA	P			54K	66A	3M							200	IM		WG
TW622		TWA	8.0	11.0			SY	C	6.3	1400	100	40	2000	3500		4K	36			3K	1050		CO
BW623		BWO	4.0	8.0		VT	SY	C	6.3	1600	160	18	135	2450		2K				4K	750		CO
QK623		KLO	7.0	7.6		MEC	RA	C	6.3	440	300		120	380						15		RI	CO
QK624		MAG	9.3	9.4	10	FX	RA	P	3.6	36A	40K	69A	1M								IM		WG
QK625		BWO	2.5	3.3		VT	RA	C	10.0	2000	1300	300	300W	850		5K					IM		CO

TYPE NUMBER	CODE	KIND	FREQUENCY		DUTY CYCLE	TUNING	MFR	OPERATION	E_f	I_f	MAXIMUM							TYPICAL					
			Min	Max							E_b	I_k	P_o	REFLECTOR COLLECTOR	E_{g_1}	HELIX VOLTAGE	GAIN	NF	PULL FACTOR	BAND WIDTH	MAG FIELD	CAVITY	COUPLING
			G_c	G_c	10^4				v	ma	v	ma	mw	v	v	v	db	db		Mc	gauss		
X626		KLA	0.4	0.4	600		EI	P	7.5	95A	105K	2A	1M				26					3E	WG
QK630		AMO	1.3	1.4	24		RA	P	30.0	2400	35K	37A	550K										CO
X631		KLA	0.6	0.9			EI						10K				43			20		6I	
QK632		MAG	5.2	5.3	1	FX	RA	P	5.0	19A	36K	60A	1M								IM		WG
X632		KLA	2.8	2.8	*1K	FX	EI	P					10M									4I	WG
X633	#	KLA	1.2	1.4			EI	P					10M				50					4I	
QK634		BWO	8.2	11.0		VT	RA	C	10.0	1400	2000	275	250w	1600	600	5K					IM		WG
X639		KLA	7.1	8.5			EI	C					50w							20		4I	
QKS642		AMA	1.2	1.4			RA	P			85K	170A	10M				8				IM		WG
QK645		KLO	7.1	8.5		MEC	RA	C	6.3	440	375		200	225						18		RI	CO
QKS653	S	AMA	1.3	1.4			RA	P			94K	98A	5M				11				IM		WG
QK661		KLO	7.1	8.5		MEC	RA	C	6.3	675	1000	100	1800	500						36		RI	WG
QK662		MAG	5.4	5.8	10	MEC	RA	P	5.0	5000	24K	24A	250K										WG
QK665	S	MAG	1.2	1.3	18	FX	RA	P	15.0	150A	72K	150A	5M								IM		WG
QK666	S	MAG	1.3	1.4	18	FX	RA	P	15.0	150A	72K	150A	5M								IM		WG
QKW669		TWA	7.1	8.5			RA	C	6.3	1000	3000	40	13W	3000		3K	30				IM		WG
QK673		KLO	88.0	92.0		MEC	RA	C	2.5	1450	1700	50	3	400	150					90		RI	WG
X676		KLA	1.0	1.2			EI	P					30K				35					3I	
QK682		MAG	5.4	5.9	20	MEC	RA	P	5.0	1500	2750	2000	800K										
X686	#	TWA	4.0	7.0		VT	EI	C					1000				50			2K			CO
QKB691		BWO	2.0	4.0		VT	RA	C	6.3	1300	250	20	1000	1600	100						IM		CO
X700	#	KLA	2.4	2.9	500	MEC	EI	P	7.5	5500	28K	2770	20K		500		40					4I	WG
CM706		CAR	3.0	4.0		VT	SF	C	2.2	18A	1500	1	200w	800		5K					1320		
CM710		CAR	2.5	3.1		VT	SF	C	2.8	18A	1500	1	250w	800		5K					1170		
723A/B	X	KLO	8.7	9.5		MEC		C	6.3	440	330	32	33	400						40		RI	CO
725A	X	MAG	9.3	9.4	10	FX		P	6.3	1000	16K	16A	50K						15		5400		WG
726A	M	KLO	3.2	3.4		MEC	RA	C	6.3	440	380	35	180	300								RI	CO
726B	M#	KLO	2.9	3.2		MEC		P	6.3	440	300	30	150									RI	CO
726C	M#	KLO	2.7	3.0		MEC		C	6.3	440	330	35	180	250						40		RI	CO
730A	M	MAG	9.3	9.4	12	FX		P	6.3	1000	16K	16A	40K								5400		
QK735	#	MAG	5.4	5.9	30	MEC	RA	P	5.0	1000	2300	1500	600W								IM		CO
QK742		KLO	8.5	9.6		MEC	RA	C	6.3	1200	250		35									RE	WG
QKW746		TWA	5.9	7.4			RA	C	6.3		700	800U	7	700			25	10			IM		WG
X747	#	MAG	0.4	1.2		VT	EI	C	6.3	1000	2000	20	50								IM		CO
QKW750	S	TWA	2.9	3.1	60		RA	P	7.5	8000	36K	13A	60K				20				1200		WG

NUMERICAL LISTING

TYPE NUMBER	CODE	KIND	FREQUENCY		DUTY CYCLE	TUNING	MFR	OPERATION	E_f	I_f	MAXIMUM							TYPICAL					
			Min	Max							E_b	I_k	P_o	REFLECTOR COLLECTOR	E_{g_1}	HELIX VOLTAGE	GAIN	NF	PULL FACTOR	BAND WIDTH	MAG FIELD	CAVITY	COUPLING
			G_c	G_c	10^4				v	ma	v	ma	mw	v	v	v	db	db		Mc	gauss		
QKW750A	S	TWA	2.9	3.1	150		RA	P	7.5	8000	36K	13A	60K								1200		CO
QK752		KLO	7.1	7.8		MEC	RA	C	6.3	440	330	35	120	380						25		R1	CO
QKK752	S	KLO	7.1	7.8		MEC	RA	C	6.3	440	330	35	120	380						15		R1	CO
QK753		KLO	7.8	8.4		MEC	RA	C	6.3	440	330	35	120	380						25		R1	CO
QKK753	S	KLO	7.7	8.4		MEC	RA	C	6.3	440	330	35	120	380						15		R1	CO
QK754		KLO	5.9	6.4		MEC	RA	C	6.3	675	1000	100	1800	500						36		R1	CO
QKK755		KLO	6.6	6.9		MEC	RA	C	6.3	675	800	100	1500	600						35		R1	CO
QKK756		KLO	6.9	7.1		MEC	RA	C	6.3	675	800	100	1500	600						35		R1	CO
QK758		KLO	7.1	7.8		MEC	RA	C	6.3	650	750		1300									R1	CO
QKK758	S	KLO	7.1	7.8		MEC	RA	C	6.3	675	1000	100	1500	500						35		R1	CO
QK759		KLO	7.8	7.8		MEC	RA	C	6.3	650	750		1300									R1	CO
QKK759	S	KLO	7.8	8.4		MEC	RA	C	6.3	675	1000	100	1500	500						35		R1	CO
QKB760A	#	BWO	4.0	8.0		VT	RA	C	6.3	1000	150	45	20	1500	100			30			IM		CO
X768		KLA	0.8	1.0			EI	C			30K		75K							7		3E	WG
QKB776	#	BWO	8.0	12.4		VT	RA	C	6.8	1800	150	45	20	1500	150			30			IM		WG
EM778	#	TWA	5.0	11.0			E1	C	6.3	600	3000	30	2000		100		60	34			IM		CO
X778	#	TWA	5.0	11.0			EI	C	6.3	600	3000	30	1000		10		60						
QKS783A	S	AMA	2.7	2.9	50		RA	P			54K	66A	3M								IM		WG
QKB786	#	BWO	1.0	2.0		VT	RA	C	6.3	1500	250	45	100	1500	200			30			IM		CO
QK790		MAG	8.9	9.4	10	MEC	RA	P	5.0	450	4500	1000	1K								1M		WG
QK798		MAG	9.4	9.4	3	FX	RA	P	5.0	650	5000	3500	5K										CO
VA800	#	KLA	1.7	2.4		MEC	VA	C	1.5	12A	20K	2350	13K				56			8		4I	WG
VA800C	#	KLA	2.1	2.4			VA	C			15K	1850	10K				40			8			
BL801		KLO	8.5	9.6		MEC	BL	C	6.3	450	350	52	20	500						30		R1	WG
BL802		KLO	8.8	9.2			BL	C	6.3	1300	350	60	4	300								RE	
VA802B	#	KLA	1.7	2.4		MEC	VA	C	6.3	7500	7000	600	1K							4	IM	1N	CO
VA804		KLA	4.4	5.9			VA	C			9000	750	2K				45			8		4I	
VA805		KLA	5.9	6.4			VA	C			9000	750	2K				45			10		4I	
BL806		KLO	8.6	9.9			BL	C			500		15									R	
VA806A	#	KLA	8.4	8.5		FX	VA	C	10.0	2200	10K	800	2K				53					41	WG
VA806B	#	KLA	8.4	8.4		FX	VA	C	10.0	2200	10K	800	2K				53					41	WG
VA806C	#	KLA	8.4	8.4		FX	VA	C	10.0	2000	10K	900	1K				51					4I	WG
VA806D	#	KLA	8.3	8.4		FX	VA	C	10.0	2200	10K	800	2K				53					41	WG
VA806E	#	KLA	8.2	8.3		FX	VA	C	10.0	2200	10K	800	2K				53					4I	WG
VA806F	#	KLA	8.2	8.2		FX	VA	C	10.0	2200	10K	800	2K				53					41	WG

TYPE NUMBER	CODE	KIND	FREQUENCY		DUTY CYCLE	TUNING	MFR	OPERATION	E_f	I_f	MAXIMUM							TYPICAL					
			Min	Max							E_b	I_k	P_o	REFLECTOR COLLECTOR	E_{g_1}	HELIX VOLTAGE	GAIN	NF	PULL FACTOR	BAND WIDTH	MAG FIELD	CAVITY	COUPLING
			G_c	G_c	10^4				v	ma	v	ma	mw	v	v	v	db	db		Mc	gauss		
VA806G	#	KLA	8.2	8.2		FX	VA	C	10.0	2200	10K	800	2K				53					4I	WG
VA806H	#	KLA	8.1	8.2		FX	VA	C	10.0	2200	10K	800	2K				53					4I	WG
VA806J	#	KLA	8.0	8.1		FX	VA	C	10.0	2200	10K	800	2K				53					4I	WG
VA806K	#	KLA	8.0	8.0		FX	VA	C	10.0	2000	10K	900	1K				52					4I	WG
VA806L	#	KLA	8.0	8.0		FX	VA	C	10.0	2200	10K	800	2K				53					4I	WG
VA806M	#	KLA	7.9	8.0		FX	VA	C	10.0	2200	10K	800	2K				53					4I	WG
VA806N	#	KLA	7.9	7.9		FX	VA	C	10.0	2000	10K	900	1K				52					4I	WG
VA806P	#	KLA	7.8	7.8		FX	VA	C	10.0	2200	10K	800	2K				53					4I	WG
VA806Q	#	KLA	7.8	7.8		FX	VA	C	10.0	2200	10K	800	2K				53					4I	WG
VA806R	#	KLA	7.7	7.8		FX	VA	C	10.0	2200	10K	800	2K				53					4I	WG
VA806S	#	KLA	7.6	7.7		FX	VA	C	10.0	2200	10K	800	2K				53					4I	WG
VA806T	#	KLA	7.6	7.6		FX	VA	C	10.0	2000	10K	900	1K				52					4I	WG
VA806U	#	KLA	7.6	7.6		FX	VA	C	10.0	2200	10K	800	2K				53					4I	WG
VA806V	#	KLA	7.5	7.6		FX	VA	C	10.0	2200	10K	800	2K				53					4I	WG
BL807		KLO	8.5	10.5			BL	C			350		100									R	
X807		KLA	0.4	0.6		MEC	EI		7.5	40A	23K	2750	20K		500	50						4I	CO
QKB808	#	BWO	6.7	12.0		VT	RA	C	6.3	1600	150	45	100		150	2K		35			IM		CO
VA808		KLA	5.3	5.9	150	FX	VA	P	6.3	2500	23K	4500	24K				65			13	IM	4I	WG
X808		KLA	0.2	0.4		MEC	EI	C	7.5	12A	17K	1600	11K		300		30					3E	CO
VA809		KLA	9.0	9.6	250	FX	VA	P	6.3	1800	18K	2100	10K				63				IM	2I	WG
BL811		KLO	8.5	9.7			BL	C			210		15									R	
BL812		KLO	8.5	9.6			BL	C			300		120									R	
VA812C		KLA	0.4	0.4			VA	P					8M				30			50			
X812		KLA	1.7	2.4			EI	C	7.0	12A	20K	5600	20K				40					4I	WG
BL814		KLO	10.4	12.3			BL	C			400		150									R	
BL815		KLO	9.1	9.2			BL	C			200		15									R	
QKK815	#	KLO	16.0	17.0		MEC	RA	C	6.3	1250	350	45	20	500						55		RI	WG
QKB816A	#	BWO	2.0	4.0		VT	RA	C	6.3	1300	250	45	70	1500	100			30			IM		CO
VA816J	#	KLA	3.4	3.6	40	MEC	VA	P	7.5	33A	115K	80A	2M									5I	WG
BL818		KLO	8.5	10.0			BL	C			350		100									R	
BL819		KLO	9.2	9.2		FX	BL	C			300		40									R	
BL820		KLO	9.1	9.1		FX	BL	C			300		40									R	
VA820B	#	KLA	2.7	2.8	20	FX	VA	P	7.5	33A	135K	105A	5M				51			25		4I	WG
VA820C	#	KLA	2.8	2.9	20	FX	VA	P	7.5	33A	135K	105A	5M				51			25		4I	WG
QK821	#	MAG	5.4	5.9	20	MEC	RA	P	5.0	1800	3700	3000	2K								IM		CO

TYPE NUMBER	CODE	KIND	FREQUENCY		DUTY CYCLE	TUNING	MFR	OPERATION	E_f	I_f	MAXIMUM							TYPICAL					
			Min	Max							E_b	I_k	P_o	REFLECTOR COLLECTOR	E_{g_1}	HELIX VOLTAGE	GAIN	NF	PULL FACTOR	BAND WIDTH	MAG FIELD	CAVITY	COUPLING
			G_c	G_c	10^4				v	ma	v	ma	mw	v	v	v	db	db		Mc	gauss		
X821		KLO	10.5	13.2			EI	C					1000									R	
QKK822		KLO	12.2	12.7		MEC	RA	C	6.3	440	400	45	100	380						35		RI	CO
VA822A	#	KLA	9.0	9.2		MEC	VA	C	10.0	2000	8500	620	1K				50			12		4I	WG
VA822B	#	KLA	9.2	9.4		MEC	VA	C	10.0	2000	8500	620	1K				50			12		4I	WG
VA822C	#	KLA	9.4	9.6		MEC	VA	C	10.0	2000	8500	620	1K				50			12		4I	WG
VA822D	#	KLA	9.6	9.8		MEC	VA	C	10.0	2000	8500	620	1K				50			12		4I	WG
VA822E	#	KLA	9.8	10.0		MEC	VA	C	10.0	2000	8500	620	1K				50			12		4I	WG
VA822F	#	KLA	10.0	10.2		MEC	VA	C	10.0	2000	8500	620	1K				50			12		4I	WG
VA822G	#	KLA	10.2	10.5		MEC	VA	C	10.0	2000	8500	620	1K				50			12		4I	WG
VA822H	#	KLA	10.5	10.8		MEC	VA	C	10.0	2000	8500	620	1K				50			12		4I	WG
VA822J	#	KLA	10.8	11.0		MEC	VA	C	10.0	2000	8500	620	1K				50			12		4I	WG
VA823A		KLA	7.5	7.5		FX	VA	C	6.0	6000	15K	1500	9K							22		4I	WG
VA823B		KLA	7.6	7.6		FX	VA	C	6.0	6000	15K	1500	9K							22		4I	WG
VA823C		KLA	7.7	7.7		FX	VA	C	6.0	6000	15K	1500	9K							22		4I	WG
VA823D		KLA	7.8	7.8		FX	VA	C	6.0	6000	15K	1500	9K							22		4I	WG
VA823E		KLA	7.9	7.9		FX	VA	C	6.0	6000	15K	1500	9K							22		4I	WG
VA823F		KLA	8.0	8.0		FX	VA	C	6.0	6000	15K	1500	9K							22		4I	WG
VA823G		KLA	8.1	8.1		FX	VA	C	6.0	6000	15K	1500	9K							22		4I	WG
VA823H		KLA	8.2	8.2		FX	VA	C	6.0	6000	15K	1500	9K							22		4I	WG
VA823J		KLA	8.3	8.3		FX	VA	C	6.0	6000	15K	1500	9K							22		4I	WG
VA823K		KLA	8.4	8.4		FX	VA	C	6.0	6000	15K	1500	9K							22		4I	WG
VA823L		KLA	8.5	8.5		FX	VA	C	6.0	6000	15K	1500	9K							22		4I	WG
VA823M		KLA	8.6	8.6		FX	VA	C	6.0	6000	15K	1500	9K							22		4I	WG
VA823N		KLA	8.7	8.7		FX	VA	C	6.0	6000	15K	1500	9K							22		4I	WG
VA823P		KLA	8.8	8.8		FX	VA	C	6.0	6000	15K	1500	9K							22		4I	WG
VA823Q		KLA	8.9	8.9		FX	VA	C	6.0	6000	15K	1500	9K							22		4I	WG
VA823R		KLA	9.1	9.1		FX	VA	C	6.0	6000	15K	1500	9K							22		4I	WG
VA823S		KLA	9.3	9.3		FX	VA	C	6.0	6000	15K	1500	9K							22		4I	WG
VA823T		KLA	9.5	9.5		FX	VA	C	6.0	6000	15K	1500	9K							22		4I	WG
VA823U		KLA	9.7	9.7		FX	VA	C	6.0	6000	15K	1500	9K							22		4I	WG
VA823V		KLA	9.9	9.9		FX	VA	C	6.0	6000	15K	1500	9K							22		4I	WG
BL824		KLO	9.2	9.5			BL	C			300		40									RI	
VA824B	#	KLA	9.8	9.8		MEC	VA	C	6.3	800	1000	90	2000				8					21	WG
BL825	#	KLO	8.5	10.0		MEC	BL	C	6.3	1200	500	70	500	450						40		RI	WG
QKW825		TWA	5.9	7.4			RA	C	6.3	1000	1500	40	3000	1500	300	1K	35				IM		WG

TYPE NUMBER	CODE	KIND	FREQUENCY		DUTY CYCLE	TUNING	MFR	OPERATION	E_f	I_f	MAXIMUM							TYPICAL					
			Min	Max							E_b	I_k	P_o	REFLECTOR COLLECTOR	E_{g_1}	HELIX VOLTAGE	GAIN	NF	PULL FACTOR	BAND WIDTH	MAG FIELD	CAVITY	COUPLING
			G_c	G_c	10^4				v	ma	v	ma	mw	v	v	v	db	db		Mc	$gauss$		
BL829	#	KLO	8.0	9.5		FX	BL				525		500										
VA829	#	KLA	10.2	10.5		MEC	VA	C	10.0	2000	11K		2K				50			17	2200	4I	WG
BL830	#	KLO	8.7	8.8		MEC	BL	C	6.3	450	350	52	15	500						30		RE	WG
QKB830	#	BWO	8.5	9.6		VT	RA	C	6.3	700	400	45	250	500	100			25					WG
BL831	#	KLO	9.3	9.3		FX	BL	C	6.3	1200	350	50	100	1000						20		RI	WG
BL832	#	KLO	9.3	9.3		FX	BL	C	6.3	1200	350	50	100	1000						20		RI	WG
VA832	#	KLA	9.8	9.8		MEC	VA	C	6.3	2100	1250	200	10W				26					3I	WG
QKK833		KLO	12.2	12.7		MEC	RA	C	6.3	675	750	75	500	450						35		RI	CO
VA833C	#	KLA	0.7	1.0		MEC	VA	C	7.0	20A	15K	3150	10K				40			7		4I	CO
QKK834	#	KLO	34.0	35.6		MEC	RA	C	6.3	600	400	27	20	105						110		RI	WG
VA834	#	KLA	4.4	5.0		MEC	VA	C	7.0	7200	7500	450	1K				50					4I	WG
VA834B	#	KLA	4.4	5.0		MEC	VA	C			7500	470	1K				43			10			
VA836	#	KLA	7.1	8.5		MEC	VA	C			8000	540	1K				48			8	IM	4I	WG
X836		KLA	0.5	0.6			EI	C	26.0	11A	18K	4800	30K				30			7		4E	CO
QKK837		KLO	67.0	70.1		MEC	RA	C	2.5	1450	1400	40	15	400	400					75		RI	WG
QKK838		KLO	69.9	73.0		MEC	RA	C	2.5	1450	1400	40	15	400	400					75		RI	WG
K839B		KLO	7.1	7.4		MEC	SY	C	6.3	800	750	80	1000	400						43		RI	WG
QKK839		KLO	9.8	10.5		FX	RA	C	5.0	9000	14K	700	2K									RI	WG
VA839	#	KLA	2.7	2.9	20	FX	VA	P	7.5	30A	150K	93A	5M				45			4		8I	WG
K840B		KLO	6.6	6.9		MEC	SY	C	6.3	800	750	80	1000	400						43		RI	WG
K841B		KLO	6.1	6.4		MEC	SY	C	6.3	800	750	80	1000	400						43		RI	WG
VA842	#	KLA	0.4	0.4	600	MEC	VA	P	30.0	25A	120K	1650	1M				40			1		4I	SP
VA845	#	KLA	9.3	9.6	1K	MEC	VA	P	9.5	2000	14K	1550	5K				50			22		4I	WG
VA846A	#	KLA	4.4	4.6		MEC	VA	C	3.0	20A	14K	1400	5K				50			8		4I	WG
VA846B	#	KLA	4.6	4.7		MEC	VA	C	3.0	20A	14K	1400	5K				50			8		4I	WG
VA846C	#	KLA	4.7	4.8		MEC	VA	C	3.0	20A	14K	1400	5K				50			8		4I	WG
VA846D	#	KLA	4.8	5.0		MEC	VA	C	3.0	20A	14K	1400	5K				50			8		4I	WG
VA846E	#	KLA	5.0	5.2		MEC	VA	C	3.0	20A	14K	1400	5K				50			8		4I	WG
VA846F	#	KLA	5.2	5.3		MEC	VA	C	3.0	20A	14K	1400	5K				50			8		4I	WG
VA846G	#	KLA	5.3	5.4		MEC	VA	C	3.0	20A	14K	1400	5K				50			8		4I	WG
VA846H	#	KLA	5.4	5.6		MEC	VA	C	3.0	20A	14K	1400	5K				50			8		4I	WG
VA846J	#	KLA	5.6	5.8		MEC	VA	C	3.0	20A	14K	1400	5K				50			8		4I	WG
VA846K	#	KLA	5.8	5.9		MEC	VA	C	3.0	20A	14K	1400	5K				50			8		4I	WG
VA846L	#	KLA	5.8	6.0		MEC	VA	C	3.0	20A	14K	1400	5K				50			8		4I	WG
VA848	#	KLA	9.1	9.3		MEC	VA	C					2K				50			17		4I	WG

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TYPE NUMBER	CODE	KIND	FREQUENCY		DUTY CYCLE	TUNING	MFR	OPERATION	E_f	I_f	MAXIMUM							TYPICAL					
			Min	Max							E_b	I_k	P_o	REFLECTOR COLLECTOR	E_{g_1}	HELIX VOLTAGE	GAIN	NF	PULL FACTOR	BAND WIDTH	MAG FIELD	CAVITY	COUPLING
			G_c	G_c	10^4				v	ma	v	ma	mw	v	v	v	db	db		Mc	gauss		
VA849		KLA	7.1	8.5		MEC	VA	C	12.5	5100	24K	2700	25K		120		40			60			WG
MCV850D1		MAG	3.5	3.6	5K	MEC	SF	P	6.3		3000	1000	500W								1M		
MCV850D2		MAG	3.6	3.7	5K	MEC	SF	P	6.3		3000	1000	500W								1M		
VA850		KLA	2.7	2.9		FX	VA	P					25M				45			30			
VA851		KLA	10.0	10.5		MEC	VA	C	8.5	2600	12K	1100	3K		200		32				1M	2I	WG
VA853		KLA	0.8	1.0			VA	C					75K				50			7			
VA856A	#	KLA	7.1	7.4		MEC	VA	C	8.5	2580	11K	1100	2K				60			11		4I	WG
VA856B	#	KLA	7.1	7.4		MEC	VA	C	8.5	2580	11K	1100	2K				60			11		4I	WG
VA856C	#	KLA	7.7	8.1		MEC	VA	C	8.5	2580	11K	1100	2K				60			11		4I	WG
VA856D	#	KLA	8.1	8.5		MEC	VA	C	8.5	2580	11K	1100	2K				60			11		4I	WG
BL857		CAR	2.5	3.3		MEC	BL						180W										WG
OKK863		KLO	50.0	57.0		MEC	RA	C	2.5	1450	1400	50	25	450	400							RI	WG
VA863		KLA	7.1	8.5			VA	C					10K				40			20			
OKK864		KLO	56.0	65.0		MEC	RA	C	2.5	1450	1400	50	25	450	400							RI	WG
OKK865		KLO	64.0	74.0		MEC	RA	C	2.5	1450	1400	50	25	450	400							RI	WG
QKK866		KLO	73.0	83.0		MEC	RA	C	2.5	1450	1400	50	25	450	400							RI	WG
OKK867		KLO	82.0	H1.0		MEC	RA	C	2.5	1450	1700	60	10	450	400							R1	WG
OKB870	#	BWO	7.2	12.4		VT	RA	C	6.3	1700	150	45	100	1800	150			35			1M		CO
OKH880	S	MAG	2.8	2.9		MEC	RA	P	8.0	79A	70K	130A	4M								1M		WG
QKH883	S	MAG	2.8	2.9		FX	RA	P	8.0	79A	70K	130A	4M								1M		WG
QKH898		MAG	2.9	2.9	8	FX	RA	P	8.0	79A	70K	130A	4M								1M		WG
OKH899		MAG	2.9	2.9	6	FX	RA	P	8.0	79A	52K	85A	2M								1M		WG
QKB909	#	BWO	5.3	5.9		VT	RA	C	6.3	1000	130	30	50			720					1M		CO
QKB913		BWO	1.0	2.0		VT	RA	C	6.3	1100	175	35	1400		150	1K		35			1M		CO
OKB914	#	BWO	2.0	4.0		VT	RA	C	6.3	1300	200	50	1000		150	1K		35			1M		CO
QKB915	#	BWO	4.0	8.0		VT	RA	C	6.3	1000	150	35	250		150	1K		35			1M		CO
OKB916	#	BWO	8.0	12.4		VT	RA	C	6.3	1800	150	35	250		150	1K		35			1M		CO
QKB924		BWO	2.7	3.2		VT	RA	C	6.3	1300	100	45	500		800						1M		CO
QKB938	#	BWO	8.5	9.6		VT	RA	C	6.3	1750	110	25	50			520					1M		CO
TW956H		TWA	2.0	4.0			SY	C					10								1M		
OKK965		KLO	5.9	6.4		MEC	RA	C	6.3	675	800	100	1500	600						35		RI	CO
QKH1000	S#	MAG	8.5	9.6	13	MEC	RA	P	9.0	14A	28K	25A	240K							2	1M		WG
QKH1000A	S#	MAG	8.5	9.6	13	MEC	RA	P	9.0	14A	28K	25A	240K							2	1M		WG
N1001		TWA	1.7	2.3		VT	EE	C	6.3	1600	1350	43	16W			3K	25				400		WC
QKH1001	S#	MAG	8.5	9.6	13	HY	RA	P	9.0	14A	28K	25A	240K							2	1M		WG

TYPE NUMBER	CODE	KIND	FREQUENCY		DUTY CYCLE	TUNING	MFR	OPERATION	E_f	I_f	MAXIMUM							TYPICAL					
			Min	Max							E_b	I_k	P_o	REFLECTOR COLLECTOR	E_{g_1}	HELIX VOLTAGE	GAIN	NF	PULL FACTOR	BAND WIDTH	MAG FIELD	CAVITY	COUPLING
			G_c	G_c	10^4				v	ma	v	ma	mw	v	v	v	db	db		Mc	gauss		
OKH1001A	S#	MAG	8.5	9.6	13	HY	RA	P	9.0	14A	28K	25A	240K							2	IM		WG
THF1001		MAG	3.1	3.3	10	FX	CF	P	16.0	3100	32K	70A	800K						15		2700		CO
N1002		TWA	1.7	2.3		VT	EE	C	6.3	360	80	200U	1	610		580	20	10		50	450		WC
N1004	S	TWA	3.8	4.2		VT	EE	C	6.3	680	1900	20	4000	2350		2K	24				500		WG
N1005M	S	TWA	3.6	4.2		VT	EE	C	6.3	360	80	200U	1	700		360	20	9			420		CO
THF1007		MAG	3.0	3.0	10	FX	CF	P	16.0	3100	32K	70A	1M						15		2750		CO
ZV1009	S#	KLO	1.5	6.0		MEC	PO	C	6.3	620	350	35	250	700	10					6		RE	
N1010	S	BWO	7.0	11.5		VT	EE	C	6.3	2000	300	30	150		250	2K					IM		WG
ZV1010	S#	KLO	0.7	3.0		MEC	PO	C	6.3	680	350	35	575	700	10					3		RE	
ZV1011	S#	KLO	4.0	11.0			PO	C	6.3	570	1250	22	150	800	150					20		RE	
ZV1012	#	KLO	0.5	3.0		MEC	PO	C	6.3	680	350	35	510	700	10					3		RE	
N1013		TWA	1.7	2.3		VT	EE	C	6.3	360	480	4	200	750		680	24	20			400		WC
N1016M		TWA	4.1	7.0		VT	EE	C	6.3	360	100	300U	1	850		600	20	11			450		CO
N1017M		TWA	1.2	1.4		VT	EE	C	6.3	360	120	250U	300U	500		255	23	8			450		CO
N1018M	S	TWA	3.6	4.2		VT	EE	C	6.3	360	350	2	75	750		645	23	21			400		CO
N1023M		TWA	3.8	4.2		VT	EE	C	6.3	680	1900	20	4000	2350		2K	24				370		CO
N1024M	S	TWA	3.6	4.2		VT	EE	C	6.3	360	80	200U	1	700		360	20	9			420		CO
N1025M	S	TWA	3.6	4.2		VT	EE	C	6.3	360	350	2	75	750		645	22	21			400		CO
THF1025		MAG	8.5	9.6	20	FX	CF	P	12.6	2100	17K	20A	70K						15		1M		WG
THF1026		MAG	8.5	9.6	10	FX	CF	P	13.8	3400	24K	25A	200K						15		IM		WG
N1029		TWA	5.9	7.2			EE	C	6.3	1200	3000	40	5000	3000	100	3K	43				600		WG
N1031		TWA	3.8	4.2			EE	C	6.3	360	500	300U	2	1000	30	600	25	9			550		WG
N1032		TWA	3.8	4.2		VT	EE	C	6.3	360	1700	4	300	1700		1K	38	20		50	550		WG
N1033		TWA	3.8	4.2		VT	EE	C	6.3	680	2500	25	7000	1400		2K	39				550		WG
N1034	S	BWO	2.4	4.5		VT	EE	C	6.3	2200	200	50	500		150	1K					IM		CO
THF1050	S	MAG	5.4	5.8	12	FX	CF	P	9.5	5500	28K	30A	250K						15		IM		WG
MC1053		MAG	2.9	3.1	10	FX	SF	P	14.0	8000	38K	70A	1M								IM		
MC1054		MAG	2.9	3.1	10	FX	SF	P	14.0	44A	45K	110A	2M								IM		
A1056	S	TWA	1.1	1.4		VT	RC	C	5.0	650		150U	1	200		175	25	8			400		CO
A1078-V1		TWA	2.5	4.0			RC	C				150U	250U	400		375	20	8					
A1078-V3		TWA	3.5	4.1			RC	C				150U	250U	400		375	20	8					
A1078-V5		TWA	2.3	2.3			RC	C				150U	250U	400		375	22	7					
A1078-V10		TWA	2.1	2.4			RC	C				150U	50U	400		375	20	8					
A1079	S	TWA	2.5	4.0		VT	RC	C	5.0	650		150U	1	400		375	20	8			525		CO
A1085		TWA	3.3	3.7		VT	RC	C	5.0	650		150U	1	400		375	25	6			525		CO

NUMERICAL LISTING

TYPE NUMBER	CODE	KIND	FREQUENCY		DUTY CYCLE	TUNING	MFR	OPERATION	E_f	I_f	MAXIMUM							TYPICAL					
			Min	Max							E_b	I_k	P_o	REFLECTOR COLLECTOR	E_{g_1}	HELIX VOLTAGE	GAIN	NF	PULL FACTOR	BAND WIDTH	MAG FIELD	CAVITY	COUPLING
			G_c	G_c	10^4				v	ma	v	ma	mw	v	v	v	db	db		Mc	gauss		
A1088	S	TWA	3.5	4.3		VT	RC	C	5.0	650		150U	1	400		375	20	8			525		CO
A1090		BWO	11.9	18.1		VT	RC	C	6.3	800	200	10	80	2700		3K							WG
A1093		TWA	1.7	2.3		VT	RC	C	6.3	1750	1400	60	15W	2000		2K	27	30			IM		CO
A1094		TWA	1.7	2.3		VT	RC	C	6.3	1250	320	6	50	600		340	27	30			IM		CO
A1097		TWA	2.0	3.5		VT	RC	C	6.3	1900	1300	50	3000	2000		2K	25	30					CO
A1105	S	TWA	2.2	2.3		VT	RC	C	5.0	650		150U	1	400		375	20	7			525		CO
A1113A		TWA	2.5	3.5		VT	RC	C	6.3	1300	235	6	100	700		600	40				IM		CO
A1113-V2		TWA	2.7	3.5			RC	C				8	100	700		600	25				IM		
A1113-V8		TWA	2.7	3.5			RC	C				8	100	700		600	30				IM		
A1119		TWA	2.0	4.0		VT	RC	C	6.3	580		1	5	700		400	25	10			400		CO
A1121		TWA	1.0	2.0		VT	RC	C	6.3	1250	320	6	150	600		560	27				IM		CO
A1122		TWA	5.0	6.0		VT	RC	C	6.3	1300	400	10	200	1000		950	30				IM		
A1125	S	TWA	1.4	1.8		VT	RC	C	5.0	650		150U	1	200		175	25	8			400		CO
A1127		MAG	8.5	9.6	10	MEC	RC	P			28K	28A	250K								IM		
A1129		TWA	4.0	5.5		VT	RC	C	6.3	1300	600	18	1000	1700		2K	30				IM		CO
A1133		TWA	8.0	12.0		VT	RC	C	6.3	850	2000	16	1000	3000		3K	35				IM		WG
A1134		TWA	2.0	4.0	20		RC	P				25	1K	7750		8K	30				IM		
A1135		MAG	8.5	9.6	20	MEC	RC	P			23K	28A	190K								IM		WG
A1136		TWA	5.0	6.0	1K	VT	RC	P	6.3	1900	3000	1	50W	4400	300	4K	35				IM		CO
A1139		TWA	1.0	2.0		VT	RC	C	6.3	850		2	5	1000		330	25	10			400		CO
A1140		TWA	8.0	12.0			RC	C				2	10	1500			33				IM		
A1150		MAG	9.3	9.3	270	MEC	RC	P			900	550	140W								IM		WG
A1160		TWA	2.0	4.0	1K	VT	RC	P	6.3	1800	1300	10	15W	2000	100	2K	35				IM		CO
A1163		MAG	8.8	9.6	10	MEC	RC	P			23K	28A	215K										
A1166		TWA	2.0	4.0		VT	RC	C	6.3	1800	1300	65	10W	2000		2K	25				IM		CO
A1166-A		TWA	2.7	3.5			RC	C				75	10W	2000		2K	25				IM		
A1171		TWA	1.0	2.0		VT	RC	C	6.3	600		2	10	400		400	32	15			IM		CO
A1173		TWA	2.0	4.0		VT	RC	C	6.3	600		2	15	500		475	35	15			IM		CO
A1174		TWA	4.0	7.0		VT	RC	C	6.3	600		2	10	1000		850	35	16			IM		CO
A1178A	S	TWA	1.0	2.0		VT	RC	C	6.3	1900	825	30	1000	900		800	30				IM		CO
A1179		TWA	2.0	4.0	1K	VT	RC	P	6.3	2300	4200	35	100W	3000	250	4K	25				IM		CO
A1181		TWA	7.5	11.2	50		RC	P				5	25W	6500		6K	25				IM		
A1188		TWA	7.0	11.0			RC	C				13	1000	3000		3K	33				IM		
A1189		TWA	4.0	7.0			RC	C				12	100	1500		2K	30				IM		
A1205		TWA	4.0	7.0			RC	C				20	1000	2600		2K	30				IM		

TYPE NUMBER	CODE	KIND	FREQUENCY		DUTY CYCLE	TUNING	MFR	OPERATION	E_f	I_f	MAXIMUM							TYPICAL					
			Min	Max							E_b	I_k	P_o	REFLECTOR COLLECTOR	E_{g_1}	HELIX VOLTAGE	GAIN	NF	PULL FACTOR	BAND WIDTH	MAG FIELD	CAVITY	COUPLING
			G_c	G_c	10^4				v	ma	v	ma	mw	v	v	v	db	db		Mc	gauss		
A1206		TWA	5.4	11.0			RC	C				25	1000	2600		3K	60				IM		
A1207	S	TWA	2.7	3.5		VT	RC	C				200U	1	700		375	20	4					CO
A1207-V4		TWA	2.3	2.7			RC	C				200U	1	700		375	20	5					
A1207-V10		TWA	3.5	4.0			RC	C				200U	1	700		375	25	5					
A1210		TWA	0.8	1.4			RC	C				1	10	320		320	25	17			IM		
A1215		TWA	12.0	15.0			RC	C				3	10	2200		2K	30				IM		
A1217		TWA	1.1	1.4			RC	C				200U	500U	500		175	20	4					
A1217-V2		TWA	1.4	1.4			RC	C				200U	500U	500		175	20	4					
A1217-V4		TWA	1.7	2.0			RC	C				200U	500U	500		175	25	5					
A1217-V6		TWA	1.2	1.4			RC	C				200U	500U	500		175	20	4					
A1229		TWA	2.5	3.8			RC	C				20	1000	1200		1K	50				IM		
TH1249	S	MAG	9.0	9.2	10	FX	CF	P	6.3	800	15K	15A	40K						15		5400		
TH1249B		MAG	9.0	9.2	10	MEC	CF	P	6.3	800	15K	15A	36K						15		5400		
TH1250	S	MAG	8.8	8.9	10	FX	CF	P	6.3	800	15K	15A	40K						15		5400		WG
TH1250B		MAG	8.8	9.0	10	MEC	CF	P	6.3	800	15K	15A	36K						15		5400		WG
C01308X		CAR	23.5	37.5		VT	CS	C	6.3	1500	350	25	100	3000		3K					IM		WG
TH1452A		MAG	9.3	9.3	20	FX	CF	P	12.6	2100	16K	30A	80K						15		IM		WG
CV1475/78	S	MAG	3.2	3.4	10	FX	GC	P	5.0	2600	26K	40A	450K								2100		WG
CV1479/82	S	MAG	3.0	3.1	10	FX	GC	P	5.0	2500	27K	35A	450K								2300		WG
CV1495	X	MAG	3.0	3.1	10	FX		P	6.0	1250	24K	22A	500K						7		2050		CO
CV1496	X	MAG	3.0	3.1	10	FX		P	6.0	1250	24K	22A	500K						7		2050		CO
CV1497	X	MAG	3.0	3.1	10	FX		P	6.0	1250	24K	22A	500K						7		2050		CO
CV1498	X	MAG	3.0	3.1	10	FX		P	6.0	1250	24K	22A	500K						7		2050		CO
CV1499	X	MAG	3.0	3.1	10	FX		P	6.0	1250	24K	22A	500K						7		2050		CO
CV1500	X	MAG	3.0	3.1	10	FX		P	6.0	1250	24K	22A	500K						7		2050		CO
TH1501		MAG	5.4	5.5	10	MEC	CF	P	9.5	5500	30K	32A	900K						15		IM		WG
TH1657A		MAG	3.1	3.3	10	FX	CF	P	16.0	3100	32K	70A	2M								2700		CO
TH1658A		MAG	2.9	2.9	10	FX	CF	P	16.0	3100	32K	70A	1M						15		2750		CO
TH1658B		MAG	3.1	3.1	10	FX	CF	P	16.0	3100	32K	70A	1M						15		2750		CO
TH1725A	S	MAG	9.3	9.4	10	FX	CF	P	6.3	800	15K	15A	40K						15		5400		WG
TH1725B		MAG	9.3	9.5	10	MEC	CF	P	6.3	800	15K	15A	36K						15		5400		WG
TH1725C	S	MAG	9.3	9.5	10	MEC	CF	P	6.3	800	15K	15A	36K						15		5400		WG
PM1757	#	BWO	26.5	41.0		VT	SY	C	12.0	1200	2000	10	10	2100	50	2K					1200		WG
PM1779	#	BWO	63.0	75.0		VT	SY	C	12.0	1200		25	3								IM		WG
MG2000		MAG	2.4	2.4		FX	TE	C	9.0	5000	2400	1350	1K								1100		CO

TYPE NUMBER	CODE	KIND	FREQUENCY		DUTY CYCLE	TUNING	MFR	OPERATION	E_f	I_f	MAXIMUM							TYPICAL					
			Min	Max							E_b	I_k	P_o	REFLECTOR COLLECTOR	E_{g_1}	HELIX VOLTAGE	GAIN	NF	PULL FACTOR	BAND WIDTH	MAG FIELD	CAVITY	COUPLING
			G_c	G_c	10^4				v	ma	v	ma	mw	v	v	v	db	db		Mc	gauss		
D2001		TWA	2.0	4.0	50		IT	P	6.3	5000	7500	1800	1K		100		30						
D2002		TWA	4.0	7.0	100		IT	P	6.3	5000	10K	2100	1K		100		33						
D2004		TWA	8.0	9.6	400		IT	P	6.3	2300	3200	50	10W	3200	10		30						
D2005		TWA	8.0	12.0			IT	C	6.3	2500	4000	50	5000		30		20						
D2006		TWA	4.0	7.0		VT	IT	C	6.3	850	1000	8	100		500		27				750		CO
D2007		TWA	4.0	7.0		VT	IT	C	6.3	2300	2800	60	10W		500		27				1200		CO
D2008		TWA	2.0	4.0	50		IT	P	6.3	5200	6800	1800	1K		100		40						
TH2010		KLA	2.9	3.0			CF	P	25.0	25A	360K	210A	30M				57			20			
TH2011A		KLA	2.9	3.0			CF	P	25.0	25A	230K	220A	20M				57			60			
TH2011B		KLA	3.0	3.1			CF	P	25.0	25A	230K	220A	20M				57			60			
CO2012X		CAR	15.5	24.0		VT	CS	C	6.3	1500	250	25	30	2500	20	2K					IM		WG
TH2012A		KLA	2.9	3.0			CF	P	25.0	20A	140K	100A	5M				60			60			
TH2012B		KLA	3.0	3.1			CF	P	25.0	20A	140K	100A	5M				60			60			
TH2013A		KLA	3.0	3.0		FX	CF	P	25.0	25A	350K	210A	25M				55			20			WG
TH2014		KLA	3.0	3.1		FX	CF	P	25.0	25A	160K	105A	5M				50			30			WG
TH2015		KLA	3.0	3.1		FX	CF	P	25.0	25A	250K	250A	25M				50			30			WG
M2101A	#	TWA	8.0	11.0			EC	C	6.3	250	800	2	5	1200	50	1K	25	10			1000		CO
M2101B	#	TWA	8.0	11.0			EC	C	6.3	250	800	1	5	1200	50	1K	25	15			IM		CO
M2101C	#	TWA	8.0	11.0			EC	C	6.3	250	800	2	5	1200	50	1K	30	10			1000		CO
M2101D	#	TWA	8.2	12.4			EC	C	6.3	250	800	2	5	1200	50	1K	25	15			1000		CO
M2101E	#	TWA	8.0	12.0			EC	C	6.3	250	800	2	5	1200	50	1K	30	10			1000		CO
TH2101		KLA	2.9	3.1			CF	P	6.3	5A	24K	9A	50K				80			60			CO
M2106A	#	TWA	7.0	11.0			EC	C	6.3	250	800	2	10	1200	50	1K	30	20			IM		CO
M2106B	#	TWA	7.0	11.0			EC	C	6.3	250	800	2	10	1200	50	1K	30	20			IM		CO
M2106C	#	TWA	7.0	11.0			EC	C	6.3	250	800	2	10	1200	50	1K	30	20			IM		CO
M2106G	#	TWA	7.0	11.0			EC	C	6.3	250	800	2	10	1200	50	1K	33	20			IM		CO
CV2111/2114		MAG	9.6	9.9	5	FX	GC	P	6.3	1300	14K	10A	50K						15		3250		WG
CV2117	S	MAG	S		15		TH	P	8.5	9000	38K	70A	1M						7		1400		WG
CV2118	S	MAG	S		15		TH	P	8.5	9000	38K	70A	1M						7		1400		WG
CV2119	S	MAG	S		15		TH	P	8.5	9000	38K	70A	1M						7		1400		WG
CV2120	S	MAG	S		15		TH	P	8.5	9000	38K	70A	1M						7		1400		WG
CV2121	S	MAG	S		15		TH	P	8.5	9000	38K	70A	1M						7		1400		WG
CV2122	S	MAG	S		15		TH	P	8.5	9000	38K	70A	1M						7		1400		WG
CV2123	S	MAG	S		15		TH	P	8.5	9000	38K	70A	1M						7		1400		WG
CV2167	S	MAG	X		7		TH	P	6.3	800	14K	9000	30K						15		5000		WG

TYPE NUMBER	CODE	KIND	FREQUENCY		DUTY CYCLE	TUNING	MFR	OPERATION	E_f	I_f	MAXIMUM							TYPICAL					
			Min	Max							E_b	I_k	P_o	REFLECTOR COLLECTOR	E_{g_1}	HELIX VOLTAGE	GAIN	NF	PULL FACTOR	BAND WIDTH	MAG FIELD	CAVITY	COUPLING
			G_c	G_c	10^4				v	ma	v	ma	mw	v	v	v	db	db		Mc	gauss		
CV2168	S	MAG	S		15		TH	P	8.5	9000	48K	90A	2M						7		1600		WG
CV2169	S	MAG	S		15		TH	P	8.5	9000	48K	90A	2M						7		1600		WG
CV2170	S	MAG	S		15		TH	P	8.5	9000	48K	90A	2M						7		1600		WG
M2201A	#	TWA	7.0	12.4			EC	C	6.3	250	450	3	10	1200		1K	25	30			400		CO
M2201B	#	TWA	8.0	12.4			EC	C	6.3	250	435	3	10	1200		1K	30	30			400		CO
M2201C	#	TWA	8.0	11.0			EC	C	6.3	250	450	3	10	1200		1K	30	30					CO
M2201D	#	TWA	8.0	12.4			EC	C	6.3	250	450	3	10	1200		1K	30	30					CO
M2203B	#	TWA	4.0	8.0			EC	C	6.3	250	450	3	10	800		800	20			2K	400		CO
M2204A	#	TWA	7.0	12.4			EC	C	6.3	250	450	3	10	1200		1K	15			2K	400		CO
M2207A	#	TWA	4.0	8.0			EC	C	6.3	250	450	3	10	800		800	30	25			400		CO
TH2220A	S#	KLO	7.4	7.8		MEC	CF	C	6.3	800	750	80	700	1000								R1	WG
TH2220B	S#	KLO	7.1	7.4		MEC	CF	C	6.3	800	750	80	700	1000								R1	WG
TH2220C	S#	KLO	6.9	7.1		MEC	CF	C	6.3	800	750	80	700	1000								R1	WG
TH2220D	S#	KLO	6.6	6.9		MEC	CF	C	6.3	800	750	80	700	1000								R1	WG
TH2220E	S#	KLO	6.1	6.4		MEC	CF	C	6.3	800	750	80	700	1000								R1	WG
TH2220F	S#	KLO	5.9	6.2		MEC	CF	C	6.3	800	750	80	700	1000								R1	WG
TH2220G	S#	KLO	6.4	6.6		MEC	CF	C	6.3	800	750	80	700	1000								R1	WG
TH2220J	S#	KLO	4.9	5.2		MEC	CF	C	6.3	800	750	80	700	1000								R1	WG
CV2313	S	MAG	X		9		TH	P	6.3	800	16K	12A	50K						15		5500		WG
CV2319	S	MAG	S		15		TH	P	8.5	9000	38K	70A	1M						7		1375		WG
CV2320	S	MAG	S		15		TH	P	8.5	9000	46K	110A	2M						7		1550		WG
CV2333	S	MAG	X		7		TH	P	6.3	800	14K	12A	50K						15		5100		WG
CV2334	S	MAG	X		7		TH	P	6.3	800	14K	12A	50K						15		5100		WG
CV2335	S	MAG	X		7		TH	P	6.3	800	14K	12A	50K						15		5100		WG
CV2336	S	MAG	X		7		TH	P	6.3	800	14K	12A	50K						15		5100		WG
CV2337	S	MAG	X		7		TH	P	6.3	800	14K	12A	50K						15		5100		WG
M2403A	#	TWA	8.0	12.4			EC	C	6.3	500		27	1000	2300	30	2K	30				1000		CO
TH2412	S#	KLO	5.1	5.9		MEC	CF	C	6.3	440	350	35	70	350								R1	CO
L3028B		MAG	9.3	9.3	270	MEC	LI	P	6.3	500	800	550	120w						20	3	IM		WG
L3028C		MAG	9.3	9.3	270	MEC	LI	P	6.3	500	800	550	120w						20	3	IM		WG
L3028D		MAG	9.3	9.3	270	MEC	LI	P	6.3	500	800	550	120w								IM		WG
Z3028	#	TWA	4.0	8.0			GE	C	6.0	280	400	800U	1	650	25	550	25	10			IM		CO
L3029A		MAG	9.2	9.3	30	MEC	LI	P	6.3	1000	5800	3800	7K						20	5	IM		WG
L3029B		MAG	9.2	9.3	30	MEC	LI	P	6.3	1000	5800	3800	7K						20	5	IM		WG
L3029C		MAG	9.3	9.4	30	MEC	LI	P	6.3	1000	5800	3800	7K						20	5	IM		WG

NUMERICAL LISTING

TYPE NUMBER	CODE	KIND	FREQUENCY		DUTY CYCLE	TUNING	MFR	OPERATION	E_f	I_f	MAXIMUM							TYPICAL					
			Min	Max							E_b	I_k	P_o	REFLECTOR COLLECTOR	E_{g_1}	HELIX VOLTAGE	GAIN	NF	PULL FACTOR	BAND WIDTH	MAG FIELD	CAVITY	COUPLING
			G_c	G_c	10^4				v	ma	v	ma	mw	v	v	v	db	db		Mc	$gauss$		
L3029D	#	MAG	9.3	9.3	30	MEC	LI	P	6.3	1000	5800	3800	7K								IM		WG
L3030	S	MAG	9.4	9.4	10	FX	LI	P	13.8	3200	28K	28A	300K						15	3	IM		WG
L3030B	S	MAG	9.0	9.0	10	FX	LI	P	13.8	3200	28K	28A	300K						15	3	IM		WG
L3030C	S	MAG	9.2	9.2	10	FX	LI	P	13.8	3200	28K	28A	300K						15	3	IM		WG
Z3031	#	TWA	14.0	18.0			GE	C	6.3	250	50	710U	5	1400		1K	25	14			610		WG
L3035		KLA	1.2	1.4	30	MEC	LI	P	16.0	8000	115K	78A	2M				36				IM	31	WG
L3036A	S#	MAG	9.4	9.4	10	FX	LI	P	12.6	2300	15K	15A	65K						15	2	IM		WG
L3036B	S#	MAG	9.3	9.3	10	FX	LI	P	12.6	2300	15K	15A	65K						15	2	IM		WG
L3036E	S#	MAG	9.4	9.4	10	FX	LI	P	12.6	2300	15K	15A	65K						15	2	IM		WG
L3036F	S#	MAG	9.2	9.2	10	FX	LI	P	12.6	2300	15K	15A	65K						15	2	IM		WG
L3036G	S#	MAG	9.2	9.2	10	FX	LI	P	12.6	2300	15K	15A	65K						15	2	IM		WG
L3037	S#	MAG	9.4	9.4	10	FX	LI	P	12.6	2300	15K	15A	90K						13	2	IM		WG
L3039D	S	MAG	8.8	8.8	10	FX	LI	P	13.8	3200	22K	28A	225K						15	2	IM		WG
L3039E	S	MAG	8.9	8.9	10	FX	LI	P	13.8	3200	22K	28A	225K						15	2	IM		WG
L3039F	S	MAG	8.9	8.9	10	FX	LI	P	13.8	3200	22K	28A	225K						15	2	IM		WG
L3039G	S	MAG	9.0	9.0	10	FX	LI	P	13.8	3200	22K	28A	225K						15	2	IM		WG
L3039H	S	MAG	9.0	9.0	10	FX	LI	P	13.8	3200	22K	28A	225K						15	2	IM		WG
L3039I	S	MAG	9.1	9.1	10	FX	LI	P	13.8	3200	22K	28A	225K						15	2	IM		WG
L3039J	S	MAG	9.2	9.2	10	FX	LI	P	13.8	3200	22K	28A	225K						15	2	IM		WG
L3039K	S	MAG	9.2	9.2	10	FX	LI	P	13.8	3200	22K	28A	225K						15	2	IM		WG
L3039L	S	MAG	9.3	9.3	10	FX	LI	P	13.8	3200	22K	28A	225K						15	2	IM		WG
L3039M	S	MAG	9.3	9.3	10	FX	LI	P	13.8	3200	22K	28A	225K						15	2	IM		WG
L3039N	S	MAG	9.4	9.4	10	FX	LI	P	13.8	3200	22K	28A	225K						15	2	IM		WG
L3039P	S#	MAG	9.4	9.4	10	FX	LI	P	13.8	3200	22K	28A	225K						15	2	IM		WG
Z3040	#	TWA	35.0	40.0			GE	C	6.3	700	60	700U	3	2750		2K	20	15			900		WG
L3058		MAG	9.3	9.4	30	MEC	LI	P	6.3	500	2800	1330	1K						20	3	IM		WG
L3083A	S#	MAG	16.0	17.0	10	MEC	LI	P	12.6	2400	17K	16A	60K								IM		WG
L3083B	S#	MAG	16.0	17.0	10	MEC	LI	P	12.6	2400	17K	16A	60K								IM		WG
L3083C	S#	MAG	16.0	17.0	10	MEC	LI	P	12.6	2400	17K	16A	60K								IM		WG
L3087A		MAG	9.3	9.3	270	MEC	LI	P	5.0	600	800	550	120W						20	3	IM		WG
Z3088	#	TWA	7.0	11.0			GE	C	6.3	300	60	650U	5	900		780	25	10			IM		CO
L3089	#	MAG	8.8	8.8	2K	FX	LI	P	6.3	900	850	200	40W								IM		WG
ZM3093	#	TWA	8.5	8.5			GE	C	6.3	300	50	700U	3	1000		850	25	7			600		WG
L3101A	S	MAG	16.0	17.0	10	MEC	LI	P	12.6	2400	17K	16A	60K								IM		WG
L3101B	S	MAG	16.0	17.0	10	MEC	LI	P	12.6	2400	17K	16A	60K								IM		WG

TYPE NUMBER	CODE	KIND	FREQUENCY		DUTY CYCLE	TUNING	MFR	OPERATION	E_f	I_f	MAXIMUM							TYPICAL					
			Min	Max							E_b	I_k	P_o	REFLECTOR COLLECTOR	E_{g_1}	HELIX VOLTAGE	GAIN	NF	PULL FACTOR	BAND WIDTH	MAG FIELD	CAVITY	COUPLING
			G_c	G_c	10^4				v	ma	v	ma	mw	v	v	v	db	db		Mc	gauss		
L3101C	S	MAG	16.0	17.0	10	MEC	LI	P	12.6	2400	17K	16A	60K								IM		WG
L3103	S	MAG	8.5	9.6	20	MEC	LI	P	12.6	2300	12K	10A	30K						15	2	IM		WG
Z3103	#	TWA	7.0	11.0			GE	C	6.3	300	60	700U	5	1000		850	25	10			600		CO
L3105	S#	MAG	9.3	9.3	100	FX	LI	P	6.3	500	800	550	100W						20	3	IM		WG
L3106	S#	MAG	8.5	9.6	10	MEC	LI	P	12.6	2300	15K	15A	65K						15	2	IM		WG
L3106A	S#	MAG	8.5	9.6	10	MEC	LI	P	12.6	2300	15K	15A	65K						15	2	IM		WG
L3148		CAR	8.5	11.0		VT	LI	C	6.3		2000	900	2K	1800		5K					IM		WG
L3151	S#	MAG	9.4	9.4	10	FX	LI	P	13.8	3200	22K	28A	225K						15	2	IM		WG
L3152	S#	MAG	9.3	9.3	10	FX	LI	P	13.8	3200	22K	28A	225K						15	2	IM		WG
L3153	S#	MAG	9.4	9.4	10	FX	LI	P	13.8	3200	22K	28A	225K						15	2	IM		WG
L3154	S#	MAG	9.5	9.5	10	FX	LI	P	13.8	3200	22K	28A	225K						15	2	IM		WG
L3155	S#	MAG	9.6	9.6	10	FX	LI	P	13.8	3200	22K	28A	225K						15	2	IM		WG
L3156	S	MAG	9.4	9.4	20	FX	LI	P	13.8	3200	20K	16A	112K						15	6	IM		WG
L3157	#	MAG	9.3	9.3	10	FX	LI	P	6.3	500	3400	2250	2K						20	2	IM		WG
L3168	S	MAG	9.4	9.4	20	FX	LI	P	12.6	2300	12K	10A	30K						15	2	IM		WG
L3180		MAG	9.2	9.2	270	MEC	LI	P	6.3	500	800	550	120W						20	3	IM		WG
L3181		MAG	9.3	9.3	270	MEC	LI	P	6.3	500	800	550	120W						20	3	IM		WG
L3182	#	MAG	9.3	9.3	30	FX	LI	P	6.3	500	2800	1330	1K						20	3	IM		WG
L3186	S#	MAG	9.3	9.3	100	FX	LI	P	6.3	500	800	550	100W						20	3	IM		WG
L3187		MAG	9.3	9.3	270	MEC	LI	P	5.0	600	800	550	120W						20	3	IM		WG
L3204	#	MAG	8.8	8.8	*2K	FX	LI	P	6.3	1000	800	200	40W						20	1	IM		WG
L3209	S#	MAG	9.2	9.2	10	FX	LI	P	13.8	3200	22K	28A	225K						15	2	IM		WG
L3210	S#	MAG	9.0	9.0	10	FX	LI	P	13.8	3200	22K	28A	225K						15	2	IM		WG
L3211		MAG	8.6	9.5	10	HY	LI	P	12.6	2300	15K	15A	65K						15	2	IM		WG
L3212		MAG	9.0	9.0	270	MEC	LI	P	6.3	500	800	550	120W						20	3	IM		WG
L3213		MAG	9.1	9.1	270	MEC	LI	P	6.3	500	800	550	120W						20	3	IM		WG
L3214		MAG	9.1	9.1	270	MEC	LI	P	6.3	500	800	550	120W						20	3	IM		WG
L3218		MAG	9.2	9.2	270	MEC	LI	P	6.3	500	800	550	120W						20	3	IM		WG
L3225		MAG	9.3	9.4	30	MEC	LI	P	6.3	500	2800	1330	1K								IM		WG
L3226		MAG	9.2	9.2	270	MEC	LI	P	6.3	500	800	550	120W								IM		WG
L3227		KLO	1.3	1.3	20		LI	P					5M										WG
L3231		KLO	1.2	1.4	15		LI	P					5M										WG
L3235		KLO	1.2	1.4	30		LI	P					4M										WG
L3236		TWA	7.0	11.0			LI	C	6.3	1100	2500	32	2000	2500	100	2K	30				IM		CO
L3238	#	MAG	9.3	9.3	30	FX	LI	P	6.3	500	2800	1333	1K								IM		WG

NUMERICAL LISTING

TYPE NUMBER	CODE	KIND	FREQUENCY		DUTY CYCLE	TUNING	MFR	OPERATION	E_f	I_f	MAXIMUM							TYPICAL					
			Min	Max							E_b	I_k	P_o	REFLECTOR COLLECTOR	E_{g_1}	HELIX VOLTAGE	GAIN	NF	PULL FACTOR	BAND WIDTH	MAG FIELD	CAVITY	COUPLING
			G_c	G_c	10^4				v	ma	v	ma	mw	v	v	v	db	db		Mc	$gauss$		
L3239	#	MAG	9.3	9.3	20	FX	LI	P	6.3	500	3300	2250	2K								IM		WG
L3250		KLA	1.2	1.4	15	MEC	LI	P	16.0	8200	250K	200	10M				36					31	WG
L3257		KLO	1.3	1.3	3		LI	P					4M										
L3264		TWA	0.1	0.3			LI	C					100W										
L3265		BWO	7.0	11.0			LI	C					10										
L3266		TWA	7.0	11.0			LI	C	6.3	1100	1500	3	10	1500	100	1K	32				IM		CO
L3268		MAG	9.3	9.3	10	FX	LI	P					4K										
L3270		KLO	1.2	1.4	30		LI	P					2M							100			
L3274		BWO	8.2	12.4			LI	C					10										
L3279		BWO	15.0	21.0			LI	C					5										
L3283		KLA	1.2	1.4	30		LI	P	16.0	8200	135K	95A	2M				30			50	IM		WG
L3302		KLA	2.8	3.0	15	FX	LI	P	16.0	9500	250K	200A	10M				40					41	WG
L3303		KLA	1.2	1.4	20		LI	P			145K	139A	5M				32			100			WG
L3305		MAG	8.6	9.5	10	HY	LI	P					65K								IM		WG
L3306	S	MAG	16.0	17.0	20		LI	P					30K										
L3312		MAG	8.5	9.6	10		LI	P					200K										
L3313		MAG	8.6	9.5	10	HY	LI	P					200K										
L3323		KLA	1.2	1.4	20		LI	P			170K	174A	10M				36			100			WG
L3326	#	MAG	16.5	16.5	10	FX	LI	P	12.6	2400	17K	16A	60K								IM		WG
L3327		MAG	9.4	9.4	270	MEC	LI	P	6.3	500	800	550	120W								IM		WG
COE3330		CAR	90.0	H1.0			CS	C	6.3	3000	1100	50	1			5K					IM		
L3355		KLO	1.2	1.4	15		LI	P					20M										
L3358	#	MAG	16.0	16.5	10		LI	P					1K										
L3359	#	MAG	16.0	16.5	10		LI	P					2K										
L3379	#	MAG	8.8	9.5	30		LI	P					1K										
L3380	#	MAG	8.8	9.5	20		LI	P					2K										
L3381	#	MAG	8.8	9.5	10		LI	P					3K										
L3382	#	MAG	8.8	9.5	10		LI	P					4K										
L3383	#	MAG	16.2	16.3	30	FX	LI	P	6.3	950	3000	2000	1K								IM		WG
L3384		MAG	9.3	9.3	300	MEC	LI	P	6.3	500	2800	1330	1K								IM		WG
L3387		KLA	1.3	1.4	33		LI	P					30M										
L3401		KLA	1.2	1.4	600	MEC	LI	P			120K	120A	5M				36						WG
L3403		KLA	0.4	0.4	600	MEC	LI	P			110K	110A	1M				35						
L3429	#	MAG	9.3	9.3	50	FX	LI	P	6.3	500	1400	2200	1K								IM		WG
L3430	#	MAG	9.3	9.3	50	FX	LI	P	6.3	900	1400	2200	1K								IM		WG

TYPE NUMBER	CODE	KIND	FREQUENCY		DUTY CYCLE	TUNING	MFR	OPERATION	E_f	I_f	MAXIMUM							TYPICAL					
			Min	Max							E_b	I_k	P_o	REFLECTOR COLLECTOR	E_{g_1}	HELIX VOLTAGE	GAIN	NF	PULL FACTOR	BAND WIDTH	MAG FIELD	CAVITY	COUPLING
			G_c	G_c	10^4				v	ma	v	ma	mw	v	v	v	db	db		Mc	$gauss$		
L3431		MAG	9.4	9.4	10	FX	LI	P	6.3	1300	7000	7000	18K								IM		WG
L3434	#	MAG	10.0	10.0	270	FX	LI	P	6.3	500	800	550	100W								IM		WG
L3452	#	MAG	16.2	16.2	30	FX	LI	P	6.3	950	3600	2750	2K								IM		WG
L3456		MAG	0.4	0.4		MEC	LI	C	6.0	15A	4600	800	550W								IM		
L3459		MAG	0.4	0.4		MEC	LI	C	6.0	15A	4600	800	550W								IM		
L3460		MAG	2.4	3.6		MEC	LI	C	6.0	15A	4500	800	850W								IM		
L3461		MAG	3.6	5.0		MEC	LI	C	6.0	15A	4300	800	600W								IM		
L3462		MAG	7.3	8.8		MEC	LI	C	6.0	15A	4800	800	400W								IM		
L3463		MAG	8.8	10.5		MEC	LI	C	6.0	15A	4800	800	350W								IM		
L3464		MAG	1.5	2.4		MEC	LI	C	6.0	15A	4300	800	600W								IM		
L3465		MAG	1.0	1.5		MEC	LI	C	6.0	15A	4300	800	850W								IM		
L3467		MAG	5.0	6.2		MEC	LI	C	6.0	15A	4800	800	600W								IM		
L3468		MAG	6.2	7.3		MEC	LI	C	6.0	15A	4800	800	500W								IM		
L3470		TWA	4.0	8.0			LI	C					20								IM		
L3471		TWA	4.0	8.0			LI	C					2000								IM		
L3472		TWA	8.5	9.6			LI	C					10W								IM		
L3486		KLA	1.2	1.4	680	MEC	LI	P			45K	18A	250K				30						WG
L3495		KLA	2.9	2.9	20	FX	LI	P			95K	63A	2M				50						WG
L3496	#	MAG	16.0	16.5	30	FX	LI	P	6.3	700	3000	1600	1K								IM		WG
L3497	#	TWA			600	VT	LI	P					6K				40						CO
L3498	#	MAG	16.3	16.3	30	FX	LI	P	6.3	950	3600	2750	2K								IM		WG
L3499	#	TWA	2.0	4.0			LI	C					2000				36				IM		CO
L3500		MAG	0.4	0.6		MEC	LI	C	5.5	17A	3200	130	110W								IM		WG
L3501		MAG	0.6	1.0		MEC	LI	C	5.5	17A	3200	130	110W								IM		WG
L3502		MAG	1.0	1.5		MEC	LI	C	5.5	17A	3200	130	110W								IM		WG
L3503		MAG	1.5	2.4		MEC	LI	C	5.5	17A	3200	130	110W								IM		WG
L3504		MAG	2.4	3.6		MEC	LI	C	5.5	17A	3200	130	110W								IM		WG
L3505		MAG	3.6	5.0		MEC	LI	C	5.5	17A	3200	130	110W								IM		WG
L3506		MAG	5.0	6.2		MEC	LI	C	5.5	17A	3200	130	110W								IM		WG
L3507		MAG	7.2	7.3		MEC	LI	C	5.5	17A	3200	130	110W								IM		WG
L3508		MAG	7.3	8.8		MEC	LI	C	5.5	17A	3200	130	110W								IM		WG
L3509		MAG	8.8	10.5		MEC	LI	C	5.5	17A	3200	130	110W								IM		WG
L3528	#	TWA	5.0	11.0			LI	C					5000				33				IM		CO
L3529	#	TWA	7.0	11.0		VT	LI	C					20W				36				IM		CO
L3530		KLA	1.2	1.4	33	FX	LI	P			240K	290A	25M				40						WG

NUMERICAL LISTING

TYPE NUMBER	CODE	KIND	FREQUENCY		DUTY CYCLE	TUNING	MFR	OPERATION	E_f	I_f	MAXIMUM							TYPICAL					
			Min	Max							E_b	I_k	P_o	REFLECTOR COLLECTOR	E_{g_1}	HELIX VOLTAGE	GAIN	NF	PULL FACTOR	BAND WIDTH	MAG FIELD	CAVITY	COUPLING
			G_c	G_c	10^4				v	ma	v	ma	mw	v	v	v	db	db		Mc	gauss		
L3531		KLA	1.2	1.4	33	MEC	LI	P			240K	290A	25M				36						WG
L3601		MAG	9.3	9.3	270	MEC	LI	P	6.3	500	800	550	120W								IM		WG
L3602	#	MAG	8.6	8.6	270	FX	LI	P	6.3	500	550	300	30W								IM		WG
L3603	#	MAG	9.3	9.3	200	FX	LI	P	6.3	500	1300	1300	500W								IM		WG
L3604	#	MAG	9.3	9.3	30	FX	LI	P	6.3	500	2800	1300	1K								IM		WG
L3605	#	MAG	9.3	9.3	10	FX	LI	P	6.3	500	3600	3150	3K								IM		WG
L3606	#	MAG	9.3	9.3	100	FX	LI	P	6.3	900	1300	1300	500W								IM		WG
L3611	#	TWA	7.0	11.0			LI	C					20				36				IM		CO
L3612	#	TWA	7.0	11.0			LI	C					2000				36				IM		CO
L3613	S	MAG	9.4	9.4	10	FX	LI	P	13.8	3350	22K	28A	225K								IM		WG
L3617		KLA	2.9	2.9	30	FX	LI	P			132K	105A	5M				55						WG
L3618		KLA	2.9	2.9	20	FX	LI	P			230K	239A	20M				55						WG
COE3833		CAR	80.0	90.0			CS	C	6.3	3000	1100	50	1			5K					IM		
TW4002	#	TWA	2.0	4.0			SY	C	6.3	1000	500	5	10	50	175	500	40				IM		CO
TW4002M		TWA	2.0	4.0			SY	C	6.3	1350		5	10	200	150	500	35				IM		CO
TW4006		TWA	1.0	2.0			SY	C	6.3	800	180	5	15	400		250	40			IK	IM		CO
TW4007		TWA	1.0	2.0			SY	C	6.3	1300		60	1000	250	150	800	35				IM		CO
4007		TWA	2.0	4.0	10	0	RC	P				28	80W	3000		4K	23				IM		
K4008		KLO	5.3	6.3		MEC	SY	C	6.3	800	750	70	1000	380						43		RI	WG
K4009		KLO	5.3	6.6		MEC	SY	C	6.3	800	750	70	1000	390						43		RI	WG
4009		TWA	2.0	4.0		VT	RC	C	6.3	1300	220	6	25	700	50	600	35	30			IM		CO
K4010		KLO	5.8	7.1		MEC	SY	C	6.3	800	750	70	1000	390						43		RI	WG
4010		TWA	2.0	4.0		VT	RC	C	6.3	1300	600	25	1000	1200	100	1K	35	30			IM		CO
K4011		KLO	6.3	7.5		MEC	SY	C	6.3	800	750	70	1000	360						43		RI	WG
4011	#	MAG	8.8	9.6	10	MEC	RC	P	13.8	3150	23K	28A	250K						15	2	IM		WG
4011A		MAG	8.8	9.6	10	MEC	RC	P			23K	28A	215K								IM		
4015		TWA	8.0	12.0			RC	C				13	1000	3000		3K	33				IM		
4016		TWA	7.0	11.0			RC	C				13	1000	3000		3K	30				IM		
4017		TWA	2.0	4.0			RC	C	6.3	600	500	2	10	1000	100	1K	28	17			IM		CO
4019		TWA	1.0	2.0			RC	C	6.3	600	500	2	10	1000	100	1K	28	17			IM		CO
4020		TWA	4.0	7.0			RC	C	6.3	600	1000	2	10	1100	150	1K	28	18			IM		CO
4021	S	TWA	1.0	2.0			RC	C	6.3	1800	1200	45	1000	1200	100	1K	32				IM		CO
M4063	#	MAG	34.5	35.2	6	FX	SY	P	6.3	2400	13K	20A	20K						45		IM		WG
M4064	#	MAG	34.5	35.2	2	FX	SY	P	6.3	2400	20K	24A	70K						40		IM		WG
BM4073	S	MAG	X		4		TH	P	6.3	800	14K		40K						15		4850		WG

TYPE NUMBER	CODE	KIND	FREQUENCY		DUTY CYCLE	TUNING	MFR	OPERATION	E_f	I_f	MAXIMUM							TYPICAL					
			Min	Max							E_b	I_k	P_o	REFLECTOR COLLECTOR	E_{g_1}	HELIX VOLTAGE	GAIN	NF	PULL FACTOR	BAND WIDTH	MAG FIELD	CAVITY	COUPLING
			G_c	G_c	10^4				v	ma	v	ma	mw	v	v	v	db	db		Mc	gauss		
WX4103		MAG	4.3	4.4		MEC	WH	C	6.3	600	350	25	1500								IM		CO
BM4119	S	MAG			2		TH	P	6.3	800	21K	25A	140K						15		6500		WG
M4154		MAG	23.7	24.3	7	FX	SY	P	5.0	3200	16K	20A	65K						45		IM		WG
M4155A	#	MAG	34.5	35.2	4	FX	SY	P	6.3	2400	13K	20A	40K						40		IM		WG
K4160		KLO	7.1	7.4		MEC	SY	C	6.3	800	750	80	1000	400					10	43		RI	WG
WX4160	#	MAG	4.2	4.4		MEC	WH	C	6.3	600	440	30	4500								IM		
WX4160	#	MAG	4.2	4.4	*2K	MEC	WH	P	6.3	600	500	100	10W								IM		
M4163		MAG	8.5	9.6	13	MEC	SY	P	13.8	3750	23K	28A	190K						13		IM		WG
WX4163		MAG	4.3	4.3		FX	WH	C	6.3	600	350	25	1500								IM		CO
M4164		MAG	8.5	9.6	13	MEC	SY	P	13.8	3750	23K	28A	200K						15		IM		WG
WX4166		TWA	8.0	12.0		VT	WH	C			12K		1K				30						WG
M4193		MAG	8.5	9.6	11	MEC	SY	P	13.8	3750	23K	28A	200K						15		IM		WG
BW4198		BWO	2.0	4.0			SY	C					100								IM		
K4203		KLO	12.1	12.8			SY	C					120										
TW4260	#	TWA	2.0	4.0			SY	C	6.3	1100		50	1000	250		1K	30				IM		CO
TW4261	#	TWA	2.0	4.0			SY	C	6.3	640		5	10	50		500	35				IM		CO
TW4267		TWA	1.0	2.0			SY	C	6.3	1000		10	15	250	175	400	35				IM		CO
TW4268		TWA	1.0	2.0			SY	C	6.3	1300		60	1000	250	150	800	30				IM		CO
XTW4273		TWA	8.0	12.0			SY	C	6.3	1500		50	1000	250	150	4K	30				IM		CO
XTW4281		TWA	4.0	8.0			SY	C	6.3	1300		3	10	150	150	1K	35				IM		CO
XTW4282		TWA	8.0	12.0			SY	C	6.3	1300		2	5	150	125	1K	35				IM		CO
WX4353	#	TWA	66.0	73.0	100	MEC	WH	P			19K		1K		200		10				IM		WG
WX4529	#	MAG	4.2	4.4		FX	WH	C	6.3	600	250		1000								IM		CO
COE4637		CAR	65.0	80.0			CS	C	6.3	1500	400	30	1			5K					IM		
CV5031		MAG	9.0	9.2	10	FX	GC	P	3.0	3500	14K	12A	50K						12		3800		WG
R5081		KLO	3.9	4.2		MEC	EM	C	6.3	900	800	150	4000	350						40		RI	CO
R5146	S	KLO	34.0	36.5		MEC	EM	C	6.3	800	2200	12	60	300						60		RI	WG
R5222	S	KLO	5.0	11.7		MEC	EM	C	6.3	700	370	55	200	500								RE	WG
Z5259	#	TWA	8.0	12.0			GE	C	6.3	300	60	700U	5	1000		850	25	10			600		WG
Z5405		MAG	1.0	2.3		VT	GE						1000								IM		CO
Z5428	#	MAG	2.2	2.3		VT	GE						10W										
Z5429		MAG	8.5	11.0		VT	GE	C	2.5	3000	2000	30	1										
5586	X*	MAG	2.7	2.9	5	MEC	RA	P	16.0	3100	30K	70A	800K								2700		CO
5607	*	MAG	2.5	3.6		MEC	LI	C	5.5	17A	6000	1000	1K						25		3300		WG
5609	X	MAG	2.4	2.8		FX	RA	C	6.3	3800	1450	135	80W						6		IM		CO

TYPE NUMBER	CODE	KIND	FREQUENCY		DUTY CYCLE	TUNING	MFR	OPERATION	E_f	I_f	MAXIMUM							TYPICAL					
			Min	Max							E_b	I_k	P_o	REFLECTOR COLLECTOR	E_{g_1}	HELIX VOLTAGE	GAIN	NF	PULL FACTOR	BAND WIDTH	MAG FIELD	CAVITY	COUPLING
			G_c	G_c	10^4				v	ma	v	ma	mw	v	v	v	db	db		Mc	gauss		
5609A	S	MAG	2.4	2.8		FX	RA	C	6.3	1800	1450	135	70W						7		1M		CO
5650	X	KLO	1.2	1.4		MEC	BT	C	6.3	450	250	50	165	350						6		R1	CO
5657	X*	MAG	2.9	3.1	5	MEC	RA	P	16.0	3100	32K	70A	700K								2700		CO
5721	S*	KLO	4.3	8.3		MEC	RA	C	6.3	580	1250	20	250	800	25					12		RE	CO
5777		KLO	0.6	2.4		MEC	RA	C	6.3	985	400		160	625	5					8		RE	CO
5778		KLO	1.8	4.6		MEC	RA	C	6.3	985	300		150	460	5					8		RE	CO
5780	M#	MAG	8.5	9.6	10	MEC	BT	P	14.5	3400	40K	36A	250K						16		1M		WG
5789	X	MAG	34.5	35.2	6	FX	SY	P	6.0	2400	14K	20A	32K						55	15	1M		WG
5795		MAG	3.1	3.5	22	MEC	WE	P	107.0	3650	50K	50A	1M								1M		WG
5836	X*	KLO	1.6	6.5		MEC	SY	C	6.3	750	325	25	60	220	10					6		RE	
5837	X	KLO	0.6	3.8		MEC	SY	C	6.3	750	325	28	175	235	10					6		RE	
5976	M	KLO	6.2	7.4		MEC	RA	C	6.3	440	330	35	110	350						49		R1	CO
5981	M*	KLO	1.2	1.5		MEC	RA	C	6.3	455	250	50	134	220						5		R1	CO
6002	X	MAG	9.2	9.4	10	FX	RA	P	4.0	44A	30K	32A	250K						15		1M		WG
R6010	S	KLO	4.4	4.8		MEC	EM	C	6.3	900	800	150	3700	290						50		R1	CO
R6015	S	KLO	4.3	4.8		MEC	EM	C	6.3	900	350	70	150	175						20		R1	CO
6027	X*	MAG	9.3	9.4	25	FX	SY	P	6.3	600	8000	8000	18K						15	1	1M		WG
6027H	S#	MAG	9.3	9.4	25	FX	SY	P	6.3	600	8000	8000	18K						15		1M		WG
RK6037	S*	KLO	5.1	5.4		TH	RA	C	6.3	470	300		30	160	200					40		R1	WG
6043		KLO	3.0	3.3		MEC	RA	C	6.3	650	300		175	175	300					20		R1	CO
C0E6045		CAR	50.0	65.0			CS	C	6.3	1500	400	30	2			3K					1M		
C0E6045B		CAR	50.0	60.0			CS	C	6.3	1500	400	30	5			3K					1M		
RK6112	S	KLO	1.0	4.0		FX	EM	C	6.3	700	300	45	150	400								RE	
RK6112A		KLO	2.6	3.7		FX	EM	C	6.3	700	250	34	100	350						32		RE	
RK6112B		KLO	2.6	3.7		FX	EM	C	6.3	700	250	34	100	320								RE	
6115	X	KLO	5.1	5.9		MEC	RA	C	6.3	440	330	35	100	350						50		R1	CO
6115A	S*	KLO	5.1	5.9		MEC	RA	C	6.3	440	330	32	100	175						30		R1	CO
6116	X*	KLO	8.5	9.7		TH	RA	C	6.3	520	350	32	34	350						45		R1	CO
6133	S*	KLO	1.5	3.8		MEC	RA	C	6.3	650	300		140	277	300					20		RE	CO
R6138	S	MAG	34.5	35.3	4	FX	EM	P	6.3	2400	16K	13A	18K						40	10	1M		WG
6177	M	MAG	4.3	4.3		FX	RA	C	6.3	600	330	30	1000								1M		CO
6178	S*	KLO	15.8	16.2		MEC	RA	C	6.3	600	330	45	25	300						75		R1	WG
6229	X#	MAG	8.9	9.4	30	MEC		P	5.0	500	5000	500	400W						20				WG
6230	X#	MAG	8.9	9.4	30	MEC		P	5.0	500	5000	1000	1K						20				WG
LT6233	S#	MAG	9.3	9.3	30	MEC	L1	P	6.3	1000	5800	3800	7K						20	5	1M		WG

TYPE NUMBER	CODE	KIND	FREQUENCY		DUTY CYCLE	TUNING	MFR	OPERATION	E_f	I_f	MAXIMUM							TYPICAL					
			Min	Max							E_b	I_k	P_o	REFLECTOR COLLECTOR	E_{g_1}	HELIX VOLTAGE	GAIN	NF	PULL FACTOR	BAND WIDTH	MAG FIELD	CAVITY	COUPLING
			G_c	G_c	10^4				v	ma	v	ma	mw	v	v	v	db	db		Mc	gauss		
6236	M*	KLO	3.8	7.6		MEC	RA	C	6.3	580	1250	20	150	800	25							R	
6237	M#	KLA	0.5	0.5		FX	GE	C	5.5	35A	18K	3000	15K				13			6	500	3I	WG
6238	M#	KLA	0.5	0.6		FX	GE	C	5.5	35A	18K	3000	15K				13			6	500	3I	WG
6239	M#	KLA	0.6	0.7		FX	GE	C	5.5	35A	18K	3000	15K				13			6	500	3I	WG
6240	M#	KLA	0.7	0.7		FX	GE	C	5.5	35A	18K	3000	15K				13			6	500	3I	WG
6241	M#	KLA	0.7	0.8		FX	GE	C	5.5	35A	18K	3000	15K				13			6	500	3I	WG
6242	M#	KLA	0.8	0.9		FX	GE	C	5.5	35A	18K	3000	15K				13			6	500	3I	WG
RK6248		MAG	8.7	8.9	450	MEC	RA	P	6.3	5000	3800	900	1M								IM		WG
6249A	X#	MAG	8.5	9.6	13	MEC		P	9.0	14A	28K	25A	240K							2	IM		WG
6249B	#	MAG	8.5	9.6	10	MEC	WH	P	9.0	14A	28K	25A	250K								IM		WG
RK6253	S	KLO	18.0	22.0		MEC	RA	C	6.3	580	2300	9	40	500	100					40		RI	WG
RK6254	S	KLO	22.0	25.0		MEC	RA	C	6.3	580	2300	9	40	500	100					40		RI	WG
WL6285		MAG	1.3	1.3	18	FX	WH	P	15.0	285A	70K	350A	10M					4	2		1500		WG
6310	X*	KLO	8.5	10.0		MEC	VA	C	6.3	1200	350	42	125	1000						48		RI	WG
6311	S#	KLO	8.5	10.0		MEC	VA	C	6.3	1200	350	42	70	1000						40		RI	WG
6312	X*	KLO	8.5	10.0		MEC	VA	C	6.3	1200	350	42	70	1000						40		RI	WG
6313	S#	KLO	8.5	10.5		MEC	VA	C	6.3	1200	385	74	140	1000						82		RI	WG
6314	X#	KLO	8.5	10.5		MEC	VA	C	6.3	1200	385	74	120	1000						65		RI	WG
6315	X#	KLO	8.5	10.0		MEC	VA	C	6.3	1200	385	74	55	1000						60		RI	WG
6316	X*	KLO	8.5	10.0		MEC	VA	C	6.3	1200	350	52	25	1000						45		RI	WG
6344	S	MAG	5.4	5.8	10	MEC	RA	P	11.0	12A	24K	30A	260K					15			IM		WG
6390	S*	KLO	6.7	11.0		MEC	RA	C	6.3	580	1250	20	60	700	25							RI	CO
6402		MAG	3.4	3.6	16	MEC	RA	P	8.3	43A	57K	55A	700K								IM		WG
RK6403		MAG	3.4	3.5	14	MEC	RA	P	8.3	43A	54K	80A	2M								IM		WG
6406A	S	MAG	2.8	2.9	6	FX	RA	P	8.3	85A	56K	95A	2M					10			IM		WG
6410A	X	MAG	2.8	2.9	10	FX		P	8.3	85A	76K	135A	5M					10			IM		WG
6468		KLO	6.1	6.4		MEC	SY	C	6.3	800	750	80	1000	400								RI	WG
6469		KLO	6.6	6.9		MEC	SY	C	6.3	800	750	80	1000	400								RI	WG
6470		KLO	7.1	7.4		MEC	SY	C	6.3	800	750	80	1000	400								RI	WG
6493		TWA	2.0	4.0			SY	C	6.3	800		5	10	510	175	510	35				285		CO
6496	#	BWO	2.0	4.0		VT	SY	C	6.3	2200	2K	45	200	300	125	2K					500		CO
LT6510	S#	MAG	9.4	9.4	10	FX		P	12.6	2300	15K	15A	65K					15	2		IM		WG
RK6517	S	MAG	1.2	1.4	13	MEC	RA	P	2.8	75A	70K	60A	1M					5			IM		WG
6518	S	MAG	2.9	2.9	7	FX	RA	P	13.0	44A	48K	92A	2M					16			IM		CO
6521	#	MAG	5.4	5.4	10	FX	RC	P	10.0	3200	16K	16A	85K					10	2		IM		WG

NUMERICAL LISTING

TYPE NUMBER	CODE	KIND	FREQUENCY		DUTY CYCLE	TUNING	MFR	OPERATION	E_f	I_f	MAXIMUM							TYPICAL					
			Min	Max							E_b	I_k	P_o	REFLECTOR COLLECTOR	E_{g_1}	HELIX VOLTAGE	GAIN	NF	PULL FACTOR	BAND WIDTH	MAG FIELD	CAVITY	COUPLING
			G_c	G_c	10^4				v	ma	v	ma	mw	v	v	v	db	db		Mc	gauss		
6541	S#	KLO	23.2	24.8		MEC	BE	C	6.3	510	330	30	10	300						55		R1	WG
LT6543	S#	MAG	8.5	9.6	10	MEC	L1	P	12.6	2300	15K	15A	80K						15	2	IM		WG
LT6543A	S#	MAG	8.5	9.6	10		L1	P	12.6	2300	15K	15A	80K						5		9		
6551	M#	MAG	23.8	24.3	7	FX	RA	P	5.0	3200	16K	18A	34K						30	15	1M		WG
6559	#	TWA	2.0	4.0			SY	C	6.3	1300		65	2000	250	800	1K	37				885		CO
RK6573	S	KLO	15.5	17.0		MEC	RA	C	6.3	600	330	45	40	300						75		RI	WG
6584	S	KLO	5.1	5.9		MEC	BE	C	6.3	500	330	35	120	300						28		RI	CO
RK6586		KLO	7.1	8.1		MEC	RA	C	6.3	440	300		140	200								RI	CO
6589	M	MAG	3.4	3.5	10	MEC		P	16.0	3400	30K	50A	500K						10	2	2700		WG
6625	#	KLA	1.0	1.2	1K	MEC	GE	P	5.0	40A	20K	9350	22K									31	CO
6651	S	TWA	2.1	3.3	50		BL	P	6.3	2100	8200	2500	1K			8K	35				1000		CO
6658		TWA	1.7	4.0		VT	1T	C	6.3	2500	1250	50	1000	1550	250		35	30		2K	750		CO
RK6695		MAG	3.4	3.6	10	MEC	RA	P	16.0	3100	31K	60A	650K								2600		CO
6698		TWA	2.0	4.0	160		SY	P	6.3	2200		2200	1K	10K		10K	35				1160		CO
6699		BWO	1.0	2.0		VT	SY	C	6.3	3000	300	45	10	300	125	875					600		CO
6752		TWA	1.0	2.0			SY	C	6.3	1300	250	65	2000	250	800	1K	37				615		CO
6753		TWA	1.0	2.0			SY	C	6.3	800	175	4	15	350		250	40			1K	300		CO
6780	S	KLO	8.5	10.0		MEC	BL	C	6.3	1200	350	42	25	1000					20			R1	WG
6781	S#	KLO	8.5	10.0		MEC		C	6.3	1200	350	42	35	1000					20			R1	WG
6784		TWA	3.1	3.5			WE	C	6.3	370	400	700U	2	1500		700	18	6			500		CO
6787		MAG	0.9	0.9		FX	GE	C	12.0	56A	4100	1500	2K						2				CO
6799	#	MAG	34.5	35.2	4	FX	SY	P	6.0	2400	20K	40A	104K						50	3	IM		WG
6825	S	TWA	2.0	4.0	50	VT	1T	P	6.3	5000	7500	1800	1K	7500			30			2K			CO
6826	S	TWA	2.0	4.0	50	VT	1T	P	6.3	5000	7500	1800	1K	750	250		30			2K			CO
6826A	S	TWA	2.0	4.0	50	VT	1T	P	6.3	5000	7500	1800	1K	750	250		40			2K			CO
RK6841	#	MAG	16.4	16.6	10	FX	RA	P	4.0	10A	19K	16A	50K						15		1M		WG
6845	X#	KLO	8.5	9.7		TH		C	6.3	518	350	32	20	350								R1	CO
6861	X	TWA	2.7	3.5		VT	RC	C	5.0	650		150U	1	400		375	25	6			525		CO
6865A	S#	MAG	8.8	9.6	10	MEC	RC	P	13.8	3150	23K	28A	220K						13	4	1M		WG
6867		TWA	8.0	9.6		VT	1T	C	6.3	850	1500	11	100	1600	250		30			2K	1300		CO
6868		TWA	1.7	4.0		VT	1T	C	6.3	2500	1500	75	10W	1750	250		40	30			1000		CO
6874	S#	MAG	8.8	9.4	13	MEC	SY	P	13.6	3400	23K	30A	180K						13	4	1M		WG
6891		TWA	8.5	9.6			WE	C					50								1M		WG
6902	#	BWO	17.5	27.0		VT	SY	C	12.0	1200	2000	12	100	2100	50	2K					1000		WG
6940	X#	KLO	8.5	9.7		TH		C	6.3	518	350	32	20	350								R1	CO

TYPE NUMBER	CODE	KIND	FREQUENCY		DUTY CYCLE	TUNING	MFR	OPERATION	E_f	I_f	MAXIMUM							TYPICAL					
			Min	Max							E_b	I_k	P_o	REFLECTOR COLLECTOR	E_{g_i}	HELIX VOLTAGE	GAIN	NF	PULL FACTOR	BAND WIDTH	MAG FIELD	CAVITY	COUPLING
			G_c	G_c	10^4				v	ma	v	ma	mw	v	v	v	db	db		Mc	gauss		
RK6959	S*	MAG	9.3	9.4	10	FX	RA	P	6.0	30A	33K	67A	800K							4	1M		WG
RK6967A	S#	MAG	9.2	9.3	10	FX	RA	P	6.3	2900	16K	14A	75K						15	4	1M		CO
6972	M	MAG	9.3	9.4	20	FX	RE	P	10.0	2850	20K	18A	75K						15		1M		WG
6974		KLO	4.6	5.0		MEC	SY	C	6.3	800	800	100	2000	410					12	25		RI	WG
6975	X*	KLO	8.5	9.6		MEC	VA	C	6.3	450	350	52	40	500						50		RI	WG
6996		TWA	8.0	9.6		VT	IT	C	6.3	2300	3400	53	10W	3500	250		30				1300		CO
7006	S#	MAG	9.0	9.6	13	MEC	SY	P	13.8	3400	23K	30A	190K						15	2	1M		WG
7008	X#	MAG	8.5	9.6	11	MEC	RC	P	13.8	3150	23K	28A	220K						15	5	1M		WG
7028	M	MAG	9.3	9.5	10	FX	MU	P	6.3	500	3500	2500	3K						14		1M		WG
RK7040		MAG	5.4	5.4	10	FX	RA	P	6.3	1650	14K	14A	85K								1M		WG
F7066		TWA	8.0	12.0		VT	1T	C	6.3	850	1500	5	50		15		30						CO
F7067		TWA	8.0	12.0	400	VT	1T	P	6.3	2300	4500	55	5000		100		30				1200		CO
F7068		TWA	8.0	12.0	50	VT	1T	P	6.3	5200	12K	2500	2K		300		35			4K	2400		CO
7072		TWA	2.0	4.0			SY	C	6.3	1100	550	40	1000	975		825	36			2K	1M		CO
7090	M	MAG	2.4	2.5		FX	RE	C	5.5	3400	1700	200	200W								1M		CO
7091	M	MAG	2.4	2.5		FX	RE	C	7.0	35A	4500	800	2K								1M		CO
7093	M	MAG	34.5	35.2	3	FX	RE	P	4.0	4300	15K	16A	32K						40		1M		WG
7096	#	BWO	2.0	4.0		VT	SY	P	6.3	1800	135	40	100	1400		100					1M		CO
7098	#	MAG	9.3	9.5	20	MEC	SY	P	5.0	650	2000	1250	60W						15	3	1M		CO
7110	X#	MAG	8.5	9.6	11	MEC	RC	P	13.8	3150	23K	28A	230K						15	5	1M		WG
7111	X#	MAG	8.5	9.6	11	MEC	RC	P	13.8	3150	23K	28A	230K						15	5	1M		WG
7112	X#	MAG	8.5	9.6	11	MEC	RC	P	13.8	3150	23K	28A	230K						15	5	1M		WG
7116		TWA	8.5	9.6			WE	C	3.5	860	1600	4	200	1500	10	2K	43	20			1M		WG
7138	S	MAG	9.0	9.1	10	FX	MC	P	6.3	515	7400	7500	18K						15	1	1M		WG
7139	S	MAG	9.1	9.2	10	FX	MC	P	6.3	515	7400	7500	18K						15	1	1M		WG
7140	S	MAG	9.2	9.3	10	FX	MC	P	6.3	515	7400	7500	18K						15	1	1M		WG
7141	S	MAG	9.3	9.4	10	FX	MC	P	6.3	515	7400	7500	18K						15	1	1M		WG
7142	S	MAG	9.4	9.5	10	FX	MC	P	6.3	515	7400	7500	18K						15	1	1M		WG
7143	S	MAG	9.5	9.6	10	FX	MC	P	6.3	515	7400	7500	18K						15	1	1M		WG
RK7156		MAG	5.4	5.8	10	MEC	RA	P	5.0	5400	24K	24A	300K								1M		WG
7182	X#	MAG	2.8	2.9	15	FX	MC	P	12.0	14A	33K	185A	2M						5		1400		WG
7208	S	MAG	15.8	17.2	10	MEC	WE	P	13.9	3500	18K	17A	100K						6		1M		WG
7208A	S	MAG	15.5	17.5	10	MEC	WE	P	12.6	3250	20K	20A	125K						6		1M		WG
7208B	S#	MAG	15.5	17.5	10		WE	P	12.6	3250	20K	20A	130K						6	4	1M		WG
7256	S	MAG	8.5	9.6	10	MEC	RA	P	6.3	1000	16K	16A	55K								1M		WG

NUMERICAL LISTING

TYPE NUMBER	CODE	KIND	FREQUENCY		DUTY CYCLE	TUNING	MFR	OPERATION	E_f	I_f	MAXIMUM							TYPICAL					
			Min	Max							E_b	I_k	P_o	REFLECTOR COLLECTOR	E_{g_1}	HELIX VOLTAGE	GAIN	NF	PULL FACTOR	BAND WIDTH	MAG FIELD	CAVITY	COUPLING
			G_c	G_c	10^4				v	ma	v	ma	mw	v	v	v	db	db		Mc	$gauss$		
7267	S	BWO	12.4	18.0		VT	HP	C	6.3	620	2000	12	60	2300	300	2K			8	6K	IM		WG
7292	M	MAG	2.4	2.4		FX	AM	C	5.0	32A	4500	2100	2K										CO
7361	#	MAG	34.7	35.0	6	FX		P	12.6	2800	13K		40K						40		IM		WG
7398	#	MAG	2.2	3.8		VT	GE	C	2.5	3000	2000	30	2000								IM		CO
RK7417		MAG	5.5	5.6	3	FX	RA	P	6.3	1600	7500	4000	9K								IM		WG
7444	S#	MAG	5.4	5.9		MEC	BL	C	5.5	800	2800	1900	1K						15		IM		CO
7446/BL233		MAG	9.4	9.4		FX	BL						800W										WG
7449	#	MAG	23.7	24.3	3	FX	RA	P	5.0	3200	14K	15A	55K								IM		WG
RK7452		MAG	15.8	16.1	22	FX	RA	P	4.8	13A	24K	50A	70K								IM		WG
7461	#	MAG	9.3	9.5	20	MEC	RA	P	5.0	650	1550	950	120W								IM		CO
7484	S	MAG	1.2	1.4	10	MEC	RA	P	2.7	75A	60K	90A	2M								IM		WG
7503		MAG	9.3	9.5	20	MEC	SY	P	5.0	650	2000	850	200						15		IM		CO
7504		KLA	1.2	1.4	30	MEC	L1	P	16.0	8250	125K	87A	2M				36					31	WG
7521		MAG	8.9	9.4	10	MEC	RA	P	5.0	450	4300	950	950W								IM		WG
7528	S	MAG	1.2	1.4	12	MEC	RA	P	3.7	90A	60K	90A	2M								IM		WG
7529	S	MAG	2.7	2.8		MEC	RA	P	8.2	78A	62K	115A	3M								IM		WG
7535	S	MAG	8.5	9.6	15	MEC	WE	P	20.0	4000	42K	45A	550K						13		IM		WG
7537	S	TWA	4.4	5.0			AM	C	6.3	800	1500	55	6000	1500		1K	34	30			600		WG
7541	#	MAG	8.5	9.6	10	MEC	WH	P	13.8	3200	22K	28A	250K								IM		WG
7547		MAG	0.4	0.4	18	MEC	RA	P	6.5	55A	55K	97A	2M								IM		CO
7577	S	AMA	1.3	1.4	7		RA	P	3.8	60A	97K	98A	5M								IM		WG
RK7578	#	MAG	5.4	5.9	20	MEC	RA	P	5.0	1750	2800	2000	1K								IM		CO
7579		MAG	8.8	8.8	*2K	FX	MA	P			800	200	40W										
7619	S#	MAG	34.5	35.2	6	FX	SY	P	12.6	2800	13K	13A	25K						30		IM		WG
RK7630	S	MAG	15.8	16.2	22	MEC	RA	P	4.8	12A	24K	52A	70K								IM		WG
7635	S	BWO	7.0	11.5		VT	MU	P	6.3	1700	350	22	180	1090	100								WG
7636	S	BWO	11.0	18.0		VT	MU	P	6.3	1000	330	1	70		100					700			WG
7637	S	TWA	3.6	4.2			MU	C	6.3	750	1200	4	30	1250		1K	30	24		600			WG
7638	S	TWA	7.0	11.5			MU	C	6.3	500	155	550U	6	1350	70	1K	20	25					WG
7639	S	TWA	11.5	18.0			MU	C	6.3	400	350	450U	3	1850		2K	20	28		6K			WG
7692	#	MAG	9.2	9.6	13	MEC	SY	P	13.8	3200	22K	21A	220K						12		IM		WG
7692A	#	MAG	8.5	9.6	13	MEC	SY	P	13.8	3200	22K	21A	220K						12		IM		WG
7718		MAG	9.3	9.4	9	FX	RA	P	3.6	36A	39K	69A	1M								IM		WG
7747		BWO	26.0	40.0		VT	ST	C	6.3	300	700	13	50			3K					IM		WG
7785	S	BWO	12.4	18.0		VT	HP	C	6.3	840	1936	2	10					30	3				

TYPE NUMBER	CODE	KIND	FREQUENCY		DUTY CYCLE	TUNING	MFR	OPERATION	E_f	I_f	MAXIMUM							TYPICAL					
			Min	Max							E_b	I_k	P_o	REFLECTOR COLLECTOR	E_{g_1}	HELIX VOLTAGE	GAIN	NF	PULL FACTOR	BAND WIDTH	MAG FIELD	CAVITY	COUPLING
			G_c	G_c	10^4				v	ma	v	ma	mw	v	v	v	db	db		Mc	$gauss$		
7794	#	MAG	4.2	4.4		MEC	WH	C	6.3	600	500	100	5000						4		IM		CO
7795	#	MAG	4.3	4.3		FX	WH	C	6.3	600	425	30	10W								IM		CO
7796		MAG	4.2	4.4		VT	WH	C	6.3	600	350	30	1500								IM		CO
7815	S	KLO	1.3	3.8		MEC	TO	C	6.3	600	300	30	150	350						30		RE	CO
7824		TWA	5.4	5.9			SE	C	6.3	770	250	10	50	200	10	900					800		CO
7857		TWA	2.4	2.7			RC	C				150U	250U	400		375	20						
COE8060		CAR	37.5	50.0			CS	C	6.3	1500	400	30	4			4K					IM		
TH9102		TWA	6.0	8.0			CF	C	6.3	1000	600	20	1000			2K	30				1200		
TH9103		TWA	6.0	8.0			CF	C	6.3	1000	600	20	100			1K	35				1200		
R9501	S	KLO	9.2	9.2		FX	EM	C	6.3	700	370	55	35	200						30		RE	WG
R9509		MAG	16.2	17.2			EM	P	6.3	7500	18K	30A	50K						10		IM		WG
R9515		MAG	34.5	35.3			EM	P	6.3	4000	16K	25A	35K						80		IM		WG
R9516		KLO	7.0	7.3		MEC	EM	C	12.6	1100	1200	140	2200	300						60		RI	WG
R9518		KLO	27.8	32.2		MEC	EM	C	6.3	800	2200	15	60	300						60		RI	WG
R9520		KLO	16.2	17.2		MEC	EM	C	6.3	600	370	45	30	100						45		RI	WG
R9521		KLO	35.0	40.0		MEC	EM	C	6.3	800	2200	15	40	300						60		RI	WG
R9538		KLO	9.1	9.3		MEC	EM	C	6.3	1200	370	55	60	210						20		RE	WG
R9539		KLO	9.3	9.5		MEC	EM	C	6.3	1200	370	55	60	220						20		RE	WG
R9540		KLO	9.5	9.7		MEC	EM	C	6.3	1200	370	55	60	230						20		RE	WG
R9541		KLO	9.7	9.9		MEC	EM	C	6.3	1200	370	55	60	240						20		RE	WG
R9542		KLO	9.9	10.1		MEC	EM	C	6.3	1200	370	55	60	250						20		RE	WG
R9543		KLO	10.1	10.6		MEC	EM	C	6.3	1200	370	55	60	260						20		RE	WG
R9544		KLO	10.6	11.0		MEC	EM	C	6.3	1200	370	55	45	300						20		RE	WG
R9546		KLO	32.0	37.5		MEC	EM	C	6.3	800	2200	15	40	300						60		RI	WG
R9547		KLO	24.0	27.8		MEC	EM	C	6.3	800	2200	15	60	300						60		RI	WG
R9551		MAG	80.0	80.0		FX	EM	P	9.0	3000	12K	8000	2K								IM		WG
R9555		KLO	37.5	43.0		MEC	EM	C	6.3	800	2200	15	30	300						60		RI	WG
R9559	S	KLO	1.0	5.4		MEC	EM	C	6.3	1200	370	55	100	400								RE	
R9561		KLO	5.4	8.2		MEC	EM	C	6.3	1200	370	55	150	300						20		RE	WG
R9562		KLO	7.0	11.7		MEC	EM	C	6.3	1200	370	55	200	350						20		RE	WG
R9570	S	KLA	2.7	3.0	20		EM	P	10.0	7200	50K	12A	100K							5		3I	WG
R9571	S	KLA	2.7	3.0	50		EM	P	10.0	7200	25K	8800	15K							30		4I	WG
R9575		MAG	3.4	3.5			EM	P	6.3	4000	16K	25A	35K						80		IM		WG
R9585	S	KLO	0.5	3.0		MEC	EM	C	6.3	700	350	32	50	400								RE	
R9586	S	KLO	0.5	3.0		MEC	EM	C	6.3	700	350	32	50	400								RE	

TYPE NUMBER	CODE	KIND	FREQUENCY		DUTY CYCLE	TUNING	MFR	OPERATION	E_f	I_f	MAXIMUM							TYPICAL					
			Min	Max							E_b	I_k	P_o	REFLECTOR COLLECTOR	E_{g_1}	HELIX VOLTAGE	GAIN	NF	PULL FACTOR	BAND WIDTH	MAG FIELD	CAVITY	COUPLING
			G_c	G_c	10^4				v	ma	v	ma	mw	v	v	v	db	db		Mc	gauss		
R9602		KLO	22.0	26.0		MEC	EM	C	6.3	800	2200	15	100	300						60		RI	
R9604		KLO	37.0	46.0		MEC	EM	C	6.3	800	2000	12	30	300						60		RI	WG
R9621		KLO	20.0	24.0		MEC	EM	C	6.3	800	2200	15	100	300						60		RI	WG
R9622		KLO	18.0	22.5		MEC	EM	C	6.3	800	2200	15	100	300						60		RI	WG
55029	M	MAG	9.4	9.5	10	FX	AM	P	13.7	3500	21K	28A	225K						18				WG
55030	M	MAG	9.3	9.4	10	FX	AM	P	13.7	3500	21K	28A	225K						18				WG
55031	M	MAG	9.2	9.3	10	FX	AM	P	13.7	3500	21K	28A	225K						18				WG
55032	M	MAG	9.0	9.2	10	FX	AM	P	13.7	3500	21K	28A	225K						18				WG
55085-01		MAG	3.6	3.6	2	FX	VV	P	5.0	2900	30K	40A	450K								2500		CO
55085-02		MAG	3.5	3.6	2	FX	VV	P	5.0	2900	30K	40A	450K								2500		CO
55085-03		MAG	3.5	3.5	2	FX	VV	P	5.0	2900	30K	40A	450K								2500		CO
55085-04		MAG	3.4	3.5	2	FX	VV	P	5.0	2900	30K	40A	450K								2500		CO
55100-01		MAG	3.0	3.1	12	FX	VV	P	5.0	2600	30K	35A	475K								2300		CO
55100-02		MAG	3.0	3.0	12	FX	VV	P	5.0	2600	30K	35A	475K								2300		CO
55100-03		MAG	3.0	3.0	12	FX	VV	P	5.0	2600	30K	35A	475K								2300		CO
55100-04		MAG	2.9	3.0	12	FX	VV	P	5.0	2600	30K	35A	475K								2300		CO
55334	M	KLO	3.3	3.4		FX	AM	C	6.3	750	3000	24	10W	850	160						600	IN	CO
55335	M	KLO	31.0	36.0		MEC	AM	P	6.3	800	2250	15	100										WG
55340	S	TWA	3.8	4.2			AM	P	6.3	800	1500	55	8000	1500			37				600		WG
55395	M	KLO	8.6	10.0		MEC	AM	C	6.3	800	9000	200	210W		50							21	WG
RXB103401		TWA	4.0	8.0		VT	BE	C	6.3	700	1000	10	200	1100	100	1K	40	30	*1		600		CO

5. Characteristic Listing of Tube Types

TYPE NUMBER	CODE	KIND	FREQUENCY Min	FREQUENCY Max	DUTY CYCLE	TUNING	MFR	OPERATION	E_f	I_f	MAXIMUM E_b	MAXIMUM I_k	MAXIMUM P_o	MAXIMUM REFLECTOR COLLECTOR	MAXIMUM E_{g_1}	MAXIMUM HELIX VOLTAGE	MAXIMUM GAIN	TYPICAL NF	TYPICAL PULL FACTOR	TYPICAL BAND WIDTH	TYPICAL MAG FIELD	CAVITY	COUPLING
			G_c	G_c	10^4				v	ma	v	ma	mw	v	v	v	db	db		Mc	gauss		
QK520		AMA	1.2	1.4			RA	C			40K	35A					20			125	1325		
QKS642		AMA	1.2	1.4			RA	P			85K	170A	10M				8				1M		WG
QKS653	S	AMA	1.3	1.4			RA	P			94K	98A	5M				11				IM		WG
7577	S	AMA	1.3	1.4	7		RA	P	3.8	60A	97K	98A	5M								IM		WG
QKS783A	S	AMA	2.7	2.9	50		RA	P			54K	66A	3M								IM		WG
QK622		AMA	2.9	3.1	50		RA	P			54K	60A	3M				8				IM		WG
QKS622		AMA	2.9	3.1	50		RA	P			54K	66A	3M							200	IM		WG
QK434		AMO	1.2	1.4		MEC	RA	C			36K	37A	600K								1150		CO
QK630		AMO	1.3	1.4	24		RA	P	30.0	2400	35K	37A	550K										CO
X288		BWA	.6	1.2			IT	C			1500	25					5						
PAX-1		BWA	.8	1.0		VT	HP	C	4.8	1250		400U	200U	800	5	650	20	5		12	IM		WG
X285		BWA	1.1	2.0			1T	C			1380	25					5						
PAS-2B		BWA	2.0	4.0		VT	HP	C	6.3	1700	200	7	1	2750	4	1K	20	4		11			CO
323H		BWA	2.0	4.0		VT	HP	C			2750	700U	1				20	5		8	750		CO
BA1		BWA	2.4	3.6			HU	C	6.3	2300	500	15		1500		2K	10			30	820		CO
BA2		BWA	8.2	12.4			HU	C	6.3	1200	400	11		2400		2K	10			100	1000		CO
324H		BWA	8.5	9.6		VT	HP	C			1500	400U	100U				20	6		12	1000		WG
BA4		BWA	12.0	18.0			HU	C	6.3	1200	250	10		2000		2K	30			20	1000		WG
X289		BWO	.6	1.2			1T	C			1500	25	50										
H09		BWO	1.0	2.0		VT	HU	C	6.3	2000	400	25	10	2600		3K					800		CO
6699		BWO	1.0	2.0		VT	SY	C	6.3	3000	300	45	10	300	125	875					600		CO
QKB785	#	BWO	1.0	2.0		VT	RA	C	6.3	1500	250	45	100	1500	200			30			IM		CO
QK546		BWO	1.0	2.0		VT	RA	C	6.3	3000	250	20	1000		100	1K					IM		CO
QKB913		BWO	1.0	2.0		VT	RA	C	6.3	1100	175	35	1400		150	1K		35			IM		CO
X286		BWO	1.1	2.0			1T	C			1400	25	50										
QK544		BWO	1.6	3.2		VT	RA	C	6.3	3000	200	10	1000		100	2K					1M		CO
H018		BWO	2.0	4.0		VT	HU	C	6.3	2000	300	15	1	3400		3K					760		CO
H01		BWO	2.0	4.0		VT	HU	C	6.3	2000	300	15	10	3400		3K					760		CO
0A2.0-4.0		BWO	2.0	4.0		VT	SE	C				10	10			2K	6				800		CO
VA181	#	BWO	2.0	4.0		MEC	VA	C					10										CO
QKB816A	#	BWO	2.0	4.0		VT	RA	C	6.3	1300	250	45	70	1500	100			30			IM		CO
BW4198		BWO	2.0	4.0			SY	C					100								1M		
7096	#	BWO	2.0	4.0		VT	SY	P	6.3	1800	135	40	100	1400		100					1M		CO
6496	#	BWO	2.0	4.0		VT	SY	C	6.3	2200	2K	45	200	300	125	2K					500		CO
QK518		BWO	2.0	4.0		VT	RA	C	6.3	1300	250	20	1000		100	2K					1M		CO

CHARACTERISTIC LISTING

TYPE NUMBER	CODE	KIND	FREQUENCY		DUTY CYCLE	TUNING	MFR	OPERATION	E_f	I_f	MAXIMUM							TYPICAL					
			Min	Max							E_b	I_k	P_o	REFLECTOR COLLECTOR	E_{g_1}	HELIX VOLTAGE	GAIN	NF	PULL FACTOR	BAND WIDTH	MAG FIELD	CAVITY	COUPLING
			G_c	G_c	10^4				v	ma	v	ma	mw	v	v	v	db	db		Mc	$gauss$		
OKB691		BWO	2.0	4.0		VT	RA	C	6.3	1300	250	20	1000	1600	100						1M		CO
OKB914	#	BWO	2.0	4.0		VT	RA	C	6.3	1300	200	50	1000		150	1K		35			1M		CO
BA3-30		BWO	2.4	4.7		VT	MU	C	6.3	2300	250	50	200	1500							1M		CO
OK533		BWO	2.4	4.7		VT	RA	C	6.3	2400	275	25	500		100	1K					1M		CO
N1034	S	BWO	2.4	4.5		VT	EE	C	6.3	2200	200	50	500		150	1K					1M		CO
QK540		BWO	2.5	3.3			RA	C			5200	300	180W	850	150								
QK625		BWO	2.5	3.3		VT	RA	C	10.0	2000	1300	300	300W	850		5K					1M		CO
OKB924		BWO	2.7	3.2		VT	RA	C	6.3	1300	100	45	500		800						1M		CO
T15S1C	#	BWO	3.0	4.5			TU	C	6.3		2100		100		50								CO
VA179	#	BWO	3.1	5.5		VT	VA	C					20								1M		CO
OA3.7-5.9		BWO	3.5	5.9		VT	SE	C				10	50			2K	6				800		CO
QK522		BWO	3.6	7.2		VT	RA	C	6.3	2200	300	10	400		100	2K					1M		CO
OK528		BWO	3.6	7.2		VT	RA	C	6.3	1000	150	5	750		100	2K					IM		CO
H010		BWO	3.7	5.9		VT	HU	C	7.0	1300	300	9	1	2000		2K					1000		CO
H03		BWO	3.8	7.0		VT	HU	C	7.0	800	500	13	1	3400		3K					800		CO
H020		BWO	3.8	7.0			HU	C	6.3	1400	300	12	10	2600		3K					1000		CO
H013		BWO	4.0	8.0			HU	C	6.3	1400	300	12	1	2400		2K					1000		CO
OA4.0-8.0		BWO	4.0	8.0		VT	SE	C				5	10			2K	10				800		CO
H021		BWO	4.0	8.0			HU	C	6.3	1400	300	12	10	2400		2K					1000		CO
OKB760A	#	BWO	4.0	8.0		VT	RA	C	6.3	1000	150	45	20	1500	100			30			IM		CO
T15C2C	#	BWO	4.0	7.0			TU	C	6.3		2100		100		50								CO
Y257/1E		BWO	4.0	7.5		VT	ST	C	6.3	900	300	15	100			2K					1M		CO
Y257/2E		BWO	4.0	7.5		VT	ST	C	6.3	900	300	15	100			2K					1M		CO
BW623		BWO	4.0	8.0		VT	SY	C	6.3	1600	160	18	135	2450		2K				4K	750		CO
OKB915	#	BWO	4.0	8.0		VT	RA	C	6.3	1000	150	35	250		150	1K		35			1M		CO
OK543		BWO	4.8	9.6		VT	RA	C	6.3	2000	350	10	150		100	2K					IM		CO
H011		BWO	5.2	8.3		VT	HU	C	6.3	1400	500	8	1	2000		2K					1000		CO
OA5.2-8.3		BWO	5.2	8.3		VT	SE	C				6	20			2K	6				800		CO
T15C1C	#	BWO	5.2	5.8			TU	C	6.3		2100		100		50								CO
OKB909	#	BWO	5.3	5.9		VT	RA	C	6.3	1000	130	30	50			720					IM		CO
OC6-11		BWO	6.0	11.0		VT	SE	C				5	10			2K	6				800		CO
OC6-12		BWO	6.5	12.0		VT	SE	C				5	10			2K	4				800		CO
OK529		BWO	6.7	11.0		VT	RA	C	6.3	2200	300	10	100		100	2K					1M		CO
OKB808	#	BWO	6.7	12.0		VT	RA	C	6.3	1600	150	45	100		150	2K		35			IM		CO
QK610		BWO	6.7	11.4		VT	RA	C	6.3	1500	250	35	300		150	2K					1M		CO

CHARACTERISTIC LISTING

TYPE NUMBER	CODE	KIND	FREQUENCY		DUTY CYCLE	TUNING	MFR	OPERATION	E_f	I_f	MAXIMUM							TYPICAL					
			Min	Max							E_b	I_k	P_o	REFLECTOR COLLECTOR	E_{g_1}	HELIX VOLTAGE	GAIN	NF	PULL FACTOR	BAND WIDTH	MAG FIELD	CAVITY	COUPLING
			G_c	G_c	10^4				v	ma	v	ma	mw	v	v	v	db	db		Mc	gauss		
H017		BWO	7.0	11.0		VT	HU	C	6.3	1200	500	10	1	2000		2K					1000		CO
H02B		BWO	7.0	14.0		VT	HU	C	7.0	800	500	12	10	3400		3K					1000		CO
X321		BWO	7.0	13.0			IT	C			2000	12	10										
L3265		BWO	7.0	11.0			L1	C					10										
OE6-11		BWO	7.0	11.0		VT	SE	C				10	30			2K	4				1000		CO
BA9-20	S	BWO	7.0	11.5		VT	MU	C	6.3	1700	350	35	75		250	2K					1M		WG
T15H1C	#	BWO	7.0	11.0			TU	C	6.3		2100		100		50								CO
N1010	S	BWO	7.0	11.5		VT	EE	C	6.3	2000	300	30	150		250	2K					1M		WG
7635	S	BWO	7.0	11.5		VT	MU	P	6.3	1700	350	22	180	1090	100								WG
QKB870	#	BWO	7.2	12.4		VT	RA	C	6.3	1700	150	45	100	1800	150			35			1M		CO
OE6-12		BWO	7.3	10.3		VT	SE	C				10	50			1K	4				1000		CO
OK535		BWO	7.5	15.0		VT	RA	C	6.3	2400	200	10	120		100	2K					1M		CO
VA161B	S#	BWO	7.5	11.0		VT	VA	C	9.0	1100		35	140		80	550					1M		WG
VA169	S#	BWO	7.5	11.0			VA	C	9.0		875	30	650		60						1M		WG
OKB776	#	BWO	8.0	12.4		VT	RA	C	6.8	1800	150	45	20	1500	150			30			1M		WG
T15X1C	#	BWO	8.0	12.0			TU	C	6.3		2100		100		50								CO
OKB916	#	BWO	8.0	12.4		VT	RA	C	6.3	1800	150	35	250		150	1K		35			1M		CO
H014		BWO	8.2	12.4		VT	HU	C	6.3	1200	350	12	1	2000		2K					1000		CO
H022		BWO	8.2	12.4			HU	C	6.3	1200	300	12	3	2000		2K					1M		CO
H02		BWO	8.2	12.4			HU	C	6.3	1200	350	12	10	2000		2K					1000		CO
OC7-13		BWO	8.2	12.4		VT	SE	C				5	10			2K	3				800		WG
OD7-13		BWO	8.2	12.4			SE	C				5	10			2K	3				800		WG
L3274		BWO	8.2	12.4			L1	C					10										
VA161	#	BWO	8.2	12.4		VT	VA	C	9.0	1100		35	140		80	650					1M		WG
QK634		BWO	8.2	11.0		VT	RA	C	10.0	1400	2000	275	250W	1600	600	5K					1M		WG
VA168	#	BWO	8.4	9.4		VT	VA	C	9.0	1000	700	45	200		80						1M		WG
QKB938	#	BWO	8.5	9.6		VT	RA	C	6.3	1750	110	25	50			52Ω					1M		CO
QKB830	#	BWO	8.5	9.6		VT	RA	C	6.3	700	400	45	250	500	100			25					WG
OA10.0-15.5		BWO	10.0	15.5			SE	C				5	10			2K	3				800		WG
317H		BWO	10.7	16.2		VT	HP	C	6.3	840	150	6	65			2K					1M		WG
BA16-10	S	BWO	11.0	18.0		VT	MU	C	6.3	1500	500	30	35			2K					1M		WG
7636	S	BWO	11.0	18.0		VT	MU	P	6.3	1000	330	1	70		100					70ρ			WG
A1090		BWO	11.9	18.1		VT	RC	C	6.3	800	200	10	80	2700		3K							WG
H019		BWO	12.0	18.0		VT	HU	C	7.0	800	600	10	1	2000		2K					1000		WG
OA12-18		BWO	12.4	18.0			SE	C				7	5			2K	4				800		WG

CHARACTERISTIC LISTING

TYPE NUMBER	CODE	KIND	FREQUENCY		DUTY CYCLE	TUNING	MFR	OPERATION	E_f	I_f	MAXIMUM							TYPICAL						
			Min	Max							E_b	I_k	P_o	REFLECTOR COLLECTOR	E_{g_1}	HELIX VOLTAGE	GAIN	NF	PULL FACTOR	BAND WIDTH	MAG FIELD	CAVITY	COUPLING
			G_c	G_c	10^4				v	ma	v	ma	mw	v	v	v	db	db		Mc	gauss		
H04		BWO	12.4	18.0		VT	HU	C	7.0	1200	350	10	10	2200		2K					1000		WG
7785	S	BWO	12.4	18.0		VT	HP	C	6.3	840	1936	2	10					30	3				
VA162	#	BWO	12.4	18.0		VT	VA	C	9.0	1000		20	30		130	1K					IM		WG
LOU-2B		BWO	12.4	18.0		VT	HP	C	6.3	620	2000	12	60	2300	300	2K			8	6K	IM		WG
7267	S	BWO	12.4	18.0		VT	HP	C	6.3	620	2000	12	60	2300	300	2K			8	6K	IM		WG
316H	S#	BWO	12.4	18.0		VT	HP	C	6.3	840	300	12	67			2K			10		IM		WG
326H	S#	BWO	12.4	18.0		VT	HP	C	6.3	840	2000	12	70	2000	150	2K			10		IM		WG
L3279		BWO	15.0	21.0			LI	C					5										
318H		BWO	15.0	21.4		VT	HP	C	6.3	840	150	6	30			2K					IM		WG
315H	#	BWO	15.8	17.2		VT	HP	C	6.3	840	150	6	50			1K					IM		WG
6902	#	BWO	17.5	27.0		VT	SY	C	12.0	1200	2000	12	100	2100	50	2K					1000		WG
VA163	#	BWO	18.0	27.0		VT	VA	C					5								IM		
7747		BWO	26.0	40.0		VT	ST	C	6.3	300	700	13	50			3K					IM		WG
PM1757	#	BWO	26.5	41.0		VT	SY	C	12.0	1200	2000	10	10	2100	50	2K					1200		WG
VA164	#	BWO	27.0	40.0		VT	VA	C					3								IM		
X275		BWO	28.0	35.0			IT	C			3000	10	40										
TWO-75	S	BWO	40.0	50.0			BE	C	6.3	600	3000	7	10	500	350						2000		WG
TWO-57	S	BWO	49.0	59.0		VT	BE	C	6.3		3000	10	5								1300		WG
TWO-67	S	BWO	49.0	59.0		VT	BE	C	6.3	600	2300	7	5	500	350						2000		WG
TWO-66	S	BWO	61.0	71.0		VT	BE	C	6.3	600	1800	7	2	500	350						2000		WG
PM1779	#	BWO	63.0	75.0		VT	SY	C	12.0	1200		25	3								IM		WG
TWO-85	S	BWO	70.0	85.0			BE	C	6.3	600	3500	7	1	500	350						2000		WG
C0315	S	CAR	1.0	2.0		VT	CS	C	6.3	3100	300	70	400	1200	20	1K					IM		CO
C0210	S	CAR	1.6	3.2		VT	CS	C	6.3	3100	300	70	400	1400	20	1K					IM		CO
C0119	S	CAR	2.4	4.7		VT	CS	C	6.3	2400	250	50	300	1400	300	1K					IM		CO
BL857		CAR	2.5	3.3		MEC	BL						180W										WG
CM710		CAR	2.5	3.1		VT	SF	C	2.8	18A	1500	1	250W	800		5K					1170		
CM706		CAR	3.0	4.0		VT	SF	C	2.2	18A	1500	1	200W	800		5K					1320		
C094		CAR	3.6	7.2		VT	CS	C	6.3	2100	300	40	80	1400	20	1K					IM		CO
C063		CAR	4.8	9.6		VT	CS	C	6.3	2100	300	30	80	1400	20	1K					IM		CO
C043		CAR	7.0	11.0		VT	CS	C	6.3	2100	300	25	80	1450	20	1K					IM		CO
C0421X		CAR	8.5	16.0		VT	CS	C	6.3	2200	200	18	10	1800	20	2K					IM		CO
L3148		CAR	8.5	11.0		VT	LI	C	6.3		2000	900	2K	1800		5K					IM		WG
C02012X		CAR	15.5	24.0		VT	CS	C	6.3	1500	250	25	30	2500	20	2K					IM		WG
C01308X		CAR	23.5	37.5		VT	CS	C	6.3	1500	350	25	100	3000		3K					IM		WG

CHARACTERISTIC LISTING

TYPE NUMBER	CODE	KIND	FREQUENCY		DUTY CYCLE	TUNING	MFR	OPERATION	E_f	I_f	MAXIMUM							TYPICAL					
			Min	Max							E_b	I_k	P_o	REFLECTOR COLLECTOR	E_{g_1}	HELIX VOLTAGE	GAIN	NF	PULL FACTOR	BAND WIDTH	MAG FIELD	CAVITY	COUPLING
			G_c	G_c	10^4				v	ma	v	ma	mw	v	v	v	db	db		Mc	gauss		
C0E8060		CAR	37.5	50.0			CS	C	6.3	1500	400	30	4			4K					IM		
C0E6045		CAR	50.0	65.0			CS	C	6.3	1500	400	30	2			3K					IM		
C0E6045B		CAR	50.0	60.0			CS	C	6.3	1500	400	30	5			3K					IM		
C0E4637		CAR	65.0	80.0			CS	C	6.3	1500	400	30	1			5K					IM		
C0E40		CAR	75.0	75.0			CS	C	6.3	3000	1500	60	500			6K					IM		
C0E3833		CAR	80.0	90.0			CS	C	6.3	3000	1100	50	1			5K					IM		
C0E3330		CAR	90.0	H1.0			CS	C	6.3	3000	1100	50	1			5K					IM		
WJ207	S#	HEL	.2	.5		VT	WJ	C	12.0	3000	600	11	3	250		2K							CO
WJ208	S	HEL	.5	1.0		VT	WJ	C	6.3	1000	750	10	1	250		2K							CO
X808		KLA	.2	.4		MEC	EI	C	7.5	12A	17K	1600	11K		300		30					3E	CO
3KM50000PA		KLA	.2	.4			EI	C	7.0	45A	20K	2500	20K									3I	CO
3KM50000PA		KLA	.2	.4			EI	P	7.0	45A	35K	5000	50K									3I	CO
4KM170,000LA		KLA	.3	.5			EI	C	11.0	47A	35K	5500	75K				50					4I	
4KM170,000LA		KLA	.3	.5	45		EI	P	11.0	47A	55K	11A	200K				50					4I	
4KM3000LQ		KLA	.4	.6		FX	EI	C	5.0	32A	10K	750	1050									4I	
3KM3000LA		KLA	.4	.6		MEC	EI	C	5.0	31A	9K	750	2K				30					3I	CO
4KM50000LA		KLA	.4	.6			EI	C	7.5	40A	17K	1800	10K		500		55					4I	CO
3K50000LA	S	KLA	.4	.6		MEC	EI	C	8.0	40A	20K	2500	12K				23					3I	CO
4KM50000LA3		KLA	.4	.6		MEC	EI	C	7.5	40A	20K	2500	13K		500		50					4E	CO
3KM3000LA		KLA	.4	.6	60	MEC	EI	P	5.0	31A	20K	2800	20K		15K		31					3I	CO
X807		KLA	.4	.6		MEC	EI		7.5	40A	23K	2750	20K		500	50						4I	CO
4KM70000LA		KLA	.4	.6		MEC	EI	C	7.5	40A	23K	2750	22K		500		50					4E	CO
X602		KLA	.4	.6			EI	C					50K				40					4I	
X602K		KLA	.4	.5	5K	MEC	EI	P	11.0	23A	50K	9000	155K		1K		45					4E	CO
4KMP240000LA		KLA	.4	.4	600	MEC	EI	P	7.5	95A	110K	36A	1M		500		48					4E	WG
X626		KLA	.4	.4	600		EI	P	7.5	95A	105K	2A	1M				26					3E	WG
VA842	#	KLA	.4	.4	600	MEC	VA	P	30.0	25A	120K	1650	1M				40			1		4I	SP
L3403		KLA	.4	.4	600	MEC	LI	P			110K	110A	1M				35						
VA812C		KLA	.4	.4			VA	P					8M				30			50			
6237	M#	KLA	.5	.5		FX	GE	C	5.5	35A	18K	3000	15K				13			6	500	3I	WG
6238	M#	KLA	.5	.6		FX	GE	C	5.5	35A	18K	3000	15K				13			6	500	3I	WG
X836		KLA	.5	.6			EI	C	26.0	11A	18K	4800	30K				30			7		4E	CO
4KM3000LR		KLA	.6	1.0		FX	EI	C	5.0	32A	10K	750	1050									4I	
4KM50000LQ		KLA	.6	1.0		MEC	EI	C	7.5	40A	20K	2500	10K		500		50					4I	
X631		KLA	.6	.9			EI						10K				43			20		6I	

CHARACTERISTIC LISTING

TYPE NUMBER	CODE	KIND	FREQUENCY		DUTY CYCLE	TUNING	MFR	OPERATION	E_f	I_f	MAXIMUM							TYPICAL					
			Min	Max							E_b	I_k	P_o	REFLECTOR COLLECTOR	E_{g_1}	HELIX VOLTAGE	GAIN	NF	PULL FACTOR	BAND WIDTH	MAG FIELD	CAVITY	COUPLING
			G_c	G_c	10^4				v	ma	v	ma	mw	v	v	v	db	db		Mc	gauss		
3K50000LF	S	KLA	.6	.7		MEC	EI	C	8.0	40A	20K	2500	12K				23					3I	CO
6239	M#	KLA	.6	.7		FX	GE	C	5.5	35A	18K	3000	15K				13			6	500	3I	WG
4KM70000LQ		KLA	.6	1.0		MEC	EI	C	7.5	40A	23K	2750	26K		500		50					4E	CO
4KMP10000LF		KLA	.6	.6	200	MEC	EI	P	11.0	22A	70K	22A	200K				57					4I	
X576		KLA	.6	.7		MEC	EI	P					200K					60		1		4I	
K347		KLA	.6	.6	20	MEC	EE	P	6.0	30A	75K	20A	600K				33				250	3E	CO
3K3000LQ		KLA	.7	1.0		MEC	EI	C	5.0	31A	9000	750	3K				25					3I	CO
6K50000LQ		KLA	.7	1.0		MEC	EI	C	8.0	40A	20K	2600	10K				50			20		6I	CO
VA833C	#	KLA	.7	1.0		MEC	VA	C	7.0	20A	15K	3150	10K				40			7		4I	CO
4K50000LQ		KLA	.7	1.0		MEC	EI	C	8.0	40A	20K	2600	11K				58			9		4I	CO
3K50900LQ	S	KLA	.7	1.0		MEC	EI	C	8.0	40A	20K	2500	12K				23					3I	CO
6240	M#	KLA	.7	.7		FX	GE	C	5.5	35A	18K	3000	15K				13			6	500	3I	WG
6241	M#	KLA	.7	.8		FX	GE	C	5.5	35A	18K	3000	15K				13			6	500	3I	WG
4KM50000LR		KLA	.8	1.0		MEC	EI	C	7.5	40A	20K	2500	11K		500		30			7		4E	CO
6242	M#	KLA	.8	.9		FX	GE	C	5.5	35A	18K	3000	15K				13			6	500	3I	WG
3K210000LQ		KLA	.8	1.0		MEC	EI	C	26.0	10A	30K	8000	75K				13			7		3E	WG
X768		KLA	.8	1.0			EI	C			30K		75K							7		3E	WG
VA853		KLA	.8	1.0			VA	C					75K				50			7			
5K210000LQ		KLA	.8	1.0		MEC	EI	C	15.0	18A	30K	10A	81K				45			10		5E	WG
3K2500LX		KLA	1.0	1.2		MEC	EI	C	7.5	5800	7000	600	1K				28					3I	CO
Z211/1G		KLA	1.0	1.2	300	MEC	ST	P	12.6	1800	5000	2500	7K	15K			33				600	3E	CO
6625	#	KLA	1.0	1.2	1K	MEC	GE	P	5.0	40A	20K	9350	22K									3I	CO
SAL39A	*	KLA	1.0	1.2	100	MEC	SP	P	5.0	43A	20K	8500	30K				23			10		3I	CO
SAL89	#	KLA	1.0	1.2	1K	MEC	SP	P	4.2	40A	20K	8500	30K		550		30			10		3I	CO
X676		KLA	1.0	1.2			EI	P					30K				35					3I	
SAL219	#	KLA	1.0	1.2	250	MEC	SP	P	4.2	35A	23K	8000	37K		230		21					3I	CO
3KM4000LT		KLA	1.0	1.2		MEC	EI	P	7.5	5500	26K	4200	38K									3I	
SAL81	#	KLA	1.2	1.4	1K	MEC	SP	P	4.5	35A	20K	8500	20K				22					3I	CO
L3486		KLA	1.2	1.4	680	MEC	LI	P			45K	18A	250K				30						WG
L3035		KLA	1.2	1.4	30	MEC	LI	P	16.0	8000	115K	78A	2M				36				IM	3I	WG
L3283		KLA	1.2	1.4	30		LI	P	16.0	8200	135K	95A	2M				30			50	IM		WG
7504		KLA	1.2	1.4	30	MEC	LI	P	16.0	8250	125K	87A	2M				36					3I	WG
L3303		KLA	1.2	1.4	20		LI	P			145K	139A	5M				32			100			WG
L3401		KLA	1.2	1.4	600	MEC	LI	P			120K	120A	5M				36						WG
X633	#	KLA	1.2	1.4			EI	P					10M				50					4I	

CHARACTERISTIC LISTING

TYPE NUMBER	CODE	KIND	FREQUENCY		DUTY CYCLE	TUNING	MFR	OPERATION	E_f	I_f	MAXIMUM							TYPICAL					
			Min	Max							E_b	I_k	P_o	REFLECTOR COLLECTOR	E_{g_1}	HELIX VOLTAGE	GAIN	NF	PULL FACTOR	BAND WIDTH	MAG FIELD	CAVITY	COUPLING
			G_c	G_c	10^4				v	ma	v	ma	mw	v	v	v	db	db		Mc	gauss		
L3250		KLA	1.2	1.4	15	MEC	LI	P	16.0	8200	250K	200	10M				36					3I	WG
L3323		KLA	1.2	1.4	20		LI	P			170K	174A	10M				36			100			WG
L3530		KLA	1.2	1.4	33	FX	LI	P			240K	290A	25M				40						WG
L3531		KLA	1.2	1.4	33	MEC	LI	P			240K	290A	25M				36						WG
K339		KLA	1.3	1.4		MEC	EE	C	6.0	30A	17K	1800	10K				35			4	400	4I	WG
L3387		KLA	1.3	1.4	33		LI	P					30M										
SAL153	#	KLA	1.4	1.4	11	FX	SP	P	5.0	50A	160K	150A	8M				40			140	1700	6I	WG
3K2500SG		KLA	1.7	2.4		MEC	EI	C	7.5	5500	7000	600	1K				25					3I	CO
VA802B	#	KLA	1.7	2.4		MEC	VA	C	6.3	7500	7000	600	1K							4	IM	IN	CO
X600		KLA	1.7	2.4			EI	C		40A	17K	1800	10K		200		50			10		4I	
4KM50000SG		KLA	1.7	2.4		MEC	EI	C	7.5	40A	18K	2000	11K				44			3		4I	WG
VA800	#	KLA	1.7	2.4		MEC	VA	C	1.5	12A	20K	2350	13K				56			8		4I	WG
X812		KLA	1.7	2.4			EI	C	7.0	12A	20K	5600	20K				40					4I	WG
VA800C	#	KLA	2.1	2.4			VA	C			15K	1850	10K				40			8			
X597		KLA	2.4	3.0			EI						20K				30					3I	
X700	#	KLA	2.4	2.9	500	MEC	EI	P	7.5	5500	28K	2770	20K		500		40					4I	WG
SAS28		KLA	2.6	2.7		FX	SP	C	7.5	11A	4000	350	150W		200		28					3I	CO
KLS2		KLA	2.6	2.6		FX	GC	C	5.0	9500	10K		2K				40					3I	WG
SAS60A		KLA	2.7	3.3		MEC	SP	C	6.3	2000	1000	300	25W		100		32					3I	CO
SAS60B		KLA	2.7	2.9	2K	MEC	SP	P	6.3	2000	1400	650	30W		100		30			8		3I	CO
SAS61		KLA	2.7	2.9	40	MEC	SP	P	6.3	6000	15K	5500	10K				30			17		3I	CO
R9571	S	KLA	2.7	3.0	50		EM	P	10.0	7200	25K	8800	15K							30		4I	WG
R9570	S	KLA	2.7	3.0	20		EM	P	10.0	7200	50K	12A	100K							5		3I	WG
VA87B	#	KLA	2.7	2.8	30	MEC	VA	P	7.5	33A	110K	50A	1M								IM	IN	WG
VA820B	#	KLA	2.7	2.8	20	FX	VA	P	7.5	33A	135K	105A	5M				51			25		4I	WG
VA839	#	KLA	2.7	2.9	20	FX	VA	P	7.5	30A	150K	93A	5M				45			4		8I	WG
VA850		KLA	2.7	2.9		FX	VA	P					25M				45			30			
VA87C	#	KLA	2.8	2.9	30	MEC	VA	P	7.5	33A	110K	50A	1M								IM	IN	WG
VA820C	#	KLA	2.8	2.9	20	FX	VA	P	7.5	33A	135K	105A	5M				51			25		4I	WG
4KP40000SQ		KLA	2.8	2.8	10	FX	EI	P	11.0	20A	250K	125A	10M				45					4I	WG
X632		KLA	2.8	2.8	*1K	FX	EI	P					10M									4I	WG
L3302		KLA	2.8	3.0	15	FX	LI	P	16.0	9500	250K	200A	10M				40					4I	WG
TH2101		KLA	2.9	3.1			CF	P	6.3	5A	24K	9A	50K				80			60			CO
L3495		KLA	2.9	2.9	20	FX	LI	P			95K	63A	2M				50						WG
TH2012A		KLA	2.9	3.0			CF	P	25.0	20A	140K	100A	5M				60			60			

CHARACTERISTIC LISTING

TYPE NUMBER	CODE	KIND	FREQUENCY		DUTY CYCLE	TUNING	MFR	OPERATION	E_f	I_f	MAXIMUM							TYPICAL					
			Min	Max							E_b	I_k	P_o	REFLECTOR COLLECTOR	E_{g_1}	HELIX VOLTAGE	GAIN	NF	PULL FACTOR	BAND WIDTH	MAG FIELD	CAVITY	COUPLING
			G_c	G_c	10^4				v	ma	v	ma	mw	v	v	v	db	db		Mc	gauss		
L3617		KLA	2.9	2.9	30	FX	LI	P			132K	105A	5M				55						WG
TH2011A		KLA	2.9	3.0			CF	P	25.0	25A	230K	220A	20M				57			60			
L3618		KLA	2.9	2.9	20	FX	LI	P			230K	239A	20M				55						WG
TH2010		KLA	2.9	3.0			CF	P	25.0	25A	360K	210A	30M				57			20			
TH2012B		KLA	3.0	3.1			CF	P	25.0	20A	140K	100A	5M				60			60			
TH2014		KLA	3.0	3.1		FX	CF	P	25.0	25A	160K	105A	5M				50			30			WG
K352		KLA	3.0	3.0	15	FX	EE	P	4.3	83A	210K	100A	6M				32					3I	WG
TH2011B		KLA	3.0	3.1			CF	P	25.0	25A	230K	220A	20M				57			60			
TH2013A		KLA	3.0	3.0		FX	CF	P	25.0	25A	350K	210A	25M				55			20			WG
TH2015		KLA	3.0	3.1		FX	CF	P	25.0	25A	250K	250A	25M				50			30			WG
VA816J	#	KLA	3.4	3.6	40	MEC	VA	P	7.5	33A	115K	80A	2M									5I	WG
SAC41		KLA	3.7	4.2		MEC	SP	C	6.3	2000	1000	300	12W				28			8		3I	WG
SAC246	#	KLA	C		1K		SP	P			3000	160	30W		30		23					3I	CO
SAC259	#	KLA	C		40	FX	SP	P	6.3	750	6600	214	300W		1K		30				IM	3I	WG
SAC225	#	KLA	4.2	6.8		MEC	SP	C	4.8	56A	130K	98A	3M				35					3I	WG
VA834	#	KLA	4.4	5.0		MEC	VA	C	7.0	7200	7500	450	1K				50					4I	WG
VA834B	#	KLA	4.4	5.0		MEC	VA	C			7500	470	1K				43			10			
VA804		KLA	4.4	5.9			VA	C			9000	750	2K				45			8		4I	
VA846A	#	KLA	4.4	4.6		MEC	VA	C	3.0	20A	14K	1400	5K				50			8		4I	WG
VA846B	#	KLA	4.6	4.7		MEC	VA	C	3.0	20A	14K	1400	5K				50			8		4I	WG
VA846C	#	KLA	4.7	4.8		MEC	VA	C	3.0	20A	14K	1400	5K				50			8		4I	WG
SAC33		KLA	4.8	5.3		FX	SP	C	7.0	6500	5400	450	500W				30				IM	3I	WG
VA846D	#	KLA	4.8	5.0		MEC	VA	C	3.0	20A	14K	1400	5K				50			8		4I	WG
SAC9G		KLA	5.0	5.0		MEC	SP	C	6.3	800	1000	175	9000		100							3I	CO
SAC9H		KLA	5.0	5.1		MEC	SP	C	6.3	800	1000	175	9000		100							3I	CO
VA846E	#	KLA	5.0	5.2		MEC	VA	C	3.0	20A	14K	1400	5K				50			8		4I	WG
VA846F	#	KLA	5.2	5.3		MEC	VA	C	3.0	20A	14K	1400	5K				50			8		4I	WG
VA846G	#	KLA	5.3	5.4		MEC	VA	C	3.0	20A	14K	1400	5K				50			8		4I	WG
VA808		KLA	5.3	5.9	150	FX	VA	P	6.3	2500	23K	4500	24K				65			13	IM	4I	WG
SAC148	#	KLA	5.3	5.8	40	MEC	SP	P	5.0	35A	90K	54A	2M				60			120	1600	5I	WG
X563L	#	KLA	5.4	5.8		MEC	EI	C	6.3	1000	3000	130	60W				35			9		4I	WG
VA846H	#	KLA	5.4	5.6		MEC	VA	C	3.0	20A	14K	1400	5K				50			8		4I	WG
VA846J	#	KLA	5.6	5.8		MEC	VA	C	3.0	20A	14K	1400	5K				50			8		4I	WG
SAC19		KLA	5.8	6.4		MEC	SP	C	6.3	2000	625	160	8000				10			25		2I	WG
VA846K	#	KLA	5.8	5.9		MEC	VA	C	3.0	20A	14K	1400	5K				50			8		4I	WG

CHARACTERISTIC LISTING

TYPE NUMBER	CODE	KIND	FREQUENCY		DUTY CYCLE	TUNING	MFR	OPERATION	E_f	I_f	MAXIMUM							TYPICAL					
			Min	Max							E_b	I_k	P_o	REFLECTOR COLLECTOR	E_{g_1}	HELIX VOLTAGE	GAIN	NF	PULL FACTOR	BAND WIDTH	MAG FIELD	CAVITY	COUPLING
			G_c	G_c	10^4				v	ma	v	ma	mw	v	v	v	db	db		Mc	gauss		
VA846L	#	KLA	5.8	6.0		MEC	VA	C	3.0	20A	14K	1400	5K				50			8		4I	WG
X563M	#	KLA	5.9	6.4		MEC	EI	C	6.3	1000	3000	130	60W				35			10		4I	WG
VA805		KLA	5.9	6.4			VA	C			9000	750	2K				45			10		4I	
X563K	#	KLA	6.5	7.1		MEC	EI	C	6.3	1000	3000	130	60W				35			13		4I	WG
X639		KLA	7.1	8.5			EI	C					50W							20		4I	
VA836	#	KLA	7.1	8.5		MEC	VA	C			8000	540	1K				48			8	1M	4I	WG
VA856A	#	KLA	7.1	7.4		MEC	VA	C	8.5	2580	11K	1100	2K				60			11		4I	WG
VA856B	#	KLA	7.1	7.4		MEC	VA	C	8.5	2580	11K	1100	2K				60			11		4I	WG
VA863		KLA	7.1	8.5			VA	C					10K				40			20			
VA849		KLA	7.1	8.5		MEC	VA	C	12.5	5100	24K	2700	25K		120		40			60			WG
VA806V	#	KLA	7.5	7.6		FX	VA	C	10.0	2200	10K	800	2K				53					4I	WG
VA823A		KLA	7.5	7.5		FX	VA	C	6.0	6000	15K	1500	9K							22		4I	WG
VA806T	#	KLA	7.6	7.6		FX	VA	C	10.0	2000	10K	900	1K				52					4I	WG
VA806S	#	KLA	7.6	7.7		FX	VA	C	10.0	2200	10K	800	2K				53					4I	WG
VA806U	#	KLA	7.6	7.6		FX	VA	C	10.0	2200	10K	800	2K				53					4I	WG
VA823B		KLA	7.6	7.6		FX	VA	C	6.0	6000	15K	1500	9K							22		4I	WG
VA806R	#	KLA	7.7	7.8		FX	VA	C	10.0	2200	10K	800	2K				53					4I	WG
VA856C	#	KLA	7.7	8.1		MEC	VA	C	8.5	2580	11K	1100	2K				60			11		4I	WG
VA823C		KLA	7.7	7.7		FX	VA	C	6.0	6000	15K	1500	9K							22		4I	WG
VA806P	#	KLA	7.8	7.8		FX	VA	C	10.0	2200	10K	800	2K				53					4I	WG
VA806Q	#	KLA	7.8	7.8		FX	VA	C	10.0	2200	10K	800	2K				53					4I	WG
VA823D		KLA	7.8	7.8		FX	VA	C	6.0	6000	15K	1500	9K							22		4I	WG
VA806N	#	KLA	7.9	7.9		FX	VA	C	10.0	2000	10K	900	1K				52					4I	WG
VA806M	#	KLA	7.9	8.0		FX	VA	C	10.0	2200	10K	800	2K				53					4I	WG
VA823E		KLA	7.9	7.9		FX	VA	C	6.0	6000	15K	1500	9K							22		4I	WG
VA806K	#	KLA	8.0	8.0		FX	VA	C	10.0	2000	10K	900	1K				52					4I	WG
VA806J	#	KLA	8.0	8.1		FX	VA	C	10.0	2200	10K	800	2K				53					4I	WG
VA806L	#	KLA	8.0	8.0		FX	VA	C	10.0	2200	10K	800	2K				53					4I	WG
VA823F		KLA	8.0	8.0		FX	VA	C	6.0	6000	15K	1500	9K							22		4I	WG
VA806H	#	KLA	8.1	8.2		FX	VA	C	10.0	2200	10K	800	2K				53					4I	WG
VA856D	#	KLA	8.1	8.5		MEC	VA	C	8.5	2580	11K	1100	2K				60			11		4I	WG
VA823G		KLA	8.1	8.1		FX	VA	C	6.0	6000	15K	1500	9K							22		4I	WG
SAX240	#	KLA	X.				SP	C	6.3	2800	6250	195	200W				30			10	IM	3I	WG
VA806E	#	KLA	8.2	8.3		FX	VA	C	10.0	2200	10K	800	2K				53					4I	WG
VA806F	#	KLA	8.2	8.2		FX	VA	C	10.0	2200	10K	800	2K				53					4I	WG

CHARACTERISTIC LISTING

TYPE NUMBER	CODE	KIND	FREQUENCY		DUTY CYCLE	TUNING	MFR	OPERATION	E_f	I_f	MAXIMUM							TYPICAL						
			Min	Max							E_b	I_k	P_o	REFLECTOR COLLECTOR	E_{g_1}	HELIX VOLTAGE	GAIN	NF	PULL FACTOR	BAND WIDTH	MAG FIELD	CAVITY	COUPLING
			G_c	G_c	10^4				v	ma	v	ma	mw	v	v	v	db	db		Mc	gauss		
VA806G	#	KLA	8.2	8.2		FX	VA	C	10.0	2200	10K	800	2K				53					4I	WG
VA823H		KLA	8.2	8.2		FX	VA	C	6.0	6000	15K	1500	9K							22		4I	WG
VA806D	#	KLA	8.3	8.4		FX	VA	C	10.0	2200	10K	800	2K				53					4I	WG
VA823J		KLA	8.3	8.3		FX	VA	C	6.0	6000	15K	1500	9K							22		4I	WG
VA806C	#	KLA	8.4	8.4		FX	VA	C	10.0	2000	10K	900	1K				51					4I	WG
VA806A	#	KLA	8.4	8.5		FX	VA	C	10.0	2200	10K	800	2K				53					4I	WG
VA806B	#	KLA	8.4	8.4		FX	VA	C	10.0	2200	10K	800	2K				53					4I	WG
VA823K		KLA	8.4	8.4		FX	VA	C	6.0	6000	15K	1500	9K							22		4I	WG
PKX6	M	KLA	8.5	10.0		FX		C			8800	210	200W				8						WG
PKX8	M	KLA	8.5	10.0		MEC		C			8800	210	200W				9						WG
VA823L		KLA	8.5	8.5		FX	VA	C	6.0	6000	15K	1500	9K							22		4I	WG
VA823M		KLA	8.6	8.6		FX	VA	C	6.0	6000	15K	1500	9K							22		4I	WG
SY11		KLA	8.7	9.7		FX	FE	C	5.7	9500	14K	850	2K				14					2I	WG
VA823N		KLA	8.7	8.7		FX	VA	C	6.0	6000	15K	1500	9K							22		4I	WG
VA823P		KLA	8.8	8.8		FX	VA	C	6.0	6000	15K	1500	9K							22		4I	WG
VA823Q		KLA	8.9	8.9		FX	VA	C	6.0	6000	15K	1500	9K							22		4I	WG
KLX1	M	KLA	9.0	9.6		FX	GC	C	4.1	4800	11K		1K				57					4I	WG
VA822A	#	KLA	9.0	9.2		MEC	VA	C	10.0	2000	8500	620	1K				50			12		4I	WG
VA809		KLA	9.0	9.6	250	FX	VA	P	6.3	1800	18K	2100	10K				63				IM	2I	WG
V24B	#	KLA	9.0	9.6	75	FX	VA	P	6.3	2500	36K	10A	50K				57			24	IM		WG
VA24C		KLA	9.0	9.6			VA	P					50K				56		5	23			
VA848	#	KLA	9.1	9.3		MEC	VA	C					2K				50			17		4I	WG
VA823R		KLA	9.1	9.1		FX	VA	C	6.0	6000	15K	1500	9K							22		4I	WG
VA822B	#	KLA	9.2	9.4		MEC	VA	C	10.0	2000	8500	620	1K				50			12		4I	WG
SAX151A	#	KLA	9.2	9.2	100	FX	SP	P	4.5	22A	75K	42A	1M				45			500	2500	6I	WG
SAX151B	#	KLA	9.2	9.2		FX	SP	P	4.5	22A	75K	42A	1M				45			500	2500	6I	WG
VA845	#	KLA	9.3	9.6	1K	MEC	VA	P	9.5	2000	14K	1550	5K				50			22		4I	WG
V82		KLA	9.3	9.3	300	FX	VA	P	6.3	1500	18K	2900	7K				56			27	IM		WG
VA823S		KLA	9.3	9.3		FX	VA	C	6.0	6000	15K	1500	9K							22		4I	WG
VA822C	#	KLA	9.4	9.6		MEC	VA	C	10.0	2000	8500	620	1K				50			12		4I	WG
SY30		KLA	9.5	9.5		FX	FE	C	7.0	3000	10K	260	200W				12			18		2I	WG
VA823T		KLA	9.5	9.5		FX	VA	C	6.0	6000	15K	1500	9K							22		4I	WG
VA822D	#	KLA	9.6	9.8		MEC	VA	C	10.0	2000	8500	620	1K				50			12		4I	WG
VA823U		KLA	9.7	9.7		FX	VA	C	6.0	6000	15K	1500	9K							22		4I	WG
VA401	#	KLA	9.8	9.8		FX	VA						10									3I	

CHARACTERISTIC LISTING

TYPE NUMBER	CODE	KIND	FREQUENCY		DUTY CYCLE	TUNING	MFR	OPERATION	E_f	I_f	MAXIMUM							TYPICAL					
			Min	Max							E_b	I_k	P_o	REFLECTOR COLLECTOR	E_{g_1}	HELIX VOLTAGE	GAIN	NF	PULL FACTOR	BAND WIDTH	MAG FIELD	CAVITY	COUPLING
			G_c	G_c	10^4				v	ma	v	ma	mw	v	v	v	db	db		Mc	gauss		
VA824B	#	KLA	9.8	9.8		MEC	VA	C	6.3	800	1000	90	2000				8					2I	WG
VA832	#	KLA	9.8	9.8		MEC	VA	C	6.3	2100	1250	200	10W				26					3I	WG
VA822E	#	KLA	9.8	10.0		MEC	VA	C	10.0	2000	8500	620	1K				50			12		4I	WG
VA823V		KLA	9.9	9.9		FX	VA	C	6.0	6000	15K	1500	9K							22		4I	WG
VA822F	#	KLA	10.0	10.2		MEC	VA	C	10.0	2000	8500	620	1K				50			12		4I	WG
VA851		KLA	10.0	10.5		MEC	VA	C	8.5	2600	12K	1100	3K		200		32				IM	2I	WG
VA822G	#	KLA	10.2	10.5		MEC	VA	C	10.0	2000	8500	620	1K				50			12		4I	WG
VA829	#	KLA	10.2	10.5		MEC	VA	C	10.0	2000	11K		2K				50			17	2200	4I	WG
VA822H	#	KLA	10.5	10.8		MEC	VA	C	10.0	2000	8500	620	1K				50			12		4I	WG
VA822J	#	KLA	10.8	11.0		MEC	VA	C	10.0	2000	8500	620	1K				50			12		4I	WG
SAU211	#	KLA	12.6	18.0		MEC	SP	C	6.3	1600	1700	140	10W				6					2I	WG
PKX7	M	KLA	12.8	14.8		FX		C			3600	50	7000				8						WG
VA403	#	KLA	13.3	13.3		FX	VA						5000									4I	
SMS27		KLM	2.6	2.7		MEC	SP	C	6.3	4000	1250	70	300		100		10					IN	CO
SMC11I		KLM	4.5	4.6		MEC	SP	C	6.3	1100	1000	35	400				6					IN	CO
SMC11A		KLM	4.6	4.7		MEC	SP	C	6.3	1100	1000	35	400				6					1N	CO
SMC11J		KLM	4.6	4.6		MEC	SP	C	6.3	1100	1000	35	400				6					IN	CO
SMC11M		KLM	4.7	4.7		MEC	SP	C	6.3	1100	1000	35	400				6					1N	CO
SMC11G		KLM	4.8	4.8		MEC	SP	C	6.3	1100	1000	35	400				6					IN	CO
SMC11L		KLM	4.8	4.9		MEC	SP	C	6.3	1100	1000	35	400				6					IN	CO
SMC11B		KLM	4.9	4.9		MEC	SP	C	6.3	1100	1000	35	400				6					IN	CO
SMC11F		KLM	4.9	5.0		MEC	SP	C	6.3	1100	1000	35	400				6					IN	CO
SMC11S		KLM	4.9	4.9		MEC	SP	C	6.3	1100	1000	35	400				6					IN	CO
SMC11C		KLM	5.0	5.0		MEC	SP	C	6.3	1100	1000	35	400				6					IN	CO
SMC11D		KLM	5.0	5.0		MEC	SP	C	6.3	1100	1000	35	400				6					IN	CO
SMC11N		KLM	5.6	5.7		MEC	SP	C	6.3	1100	1000	35	400				6					IN	CO
KB9-150W		KLM	8.6	10.0		MEC	MU	C	6.3	800	10K	250	200W	10K	250							2I	WG
SMX32		KLM	9.0	10.5		MEC	SP	C	6.3	1600	1000	150	1800				2					3I	WG
KC9-250W		KLM	9.2	9.5	10	MEC	MU	P	6.3	4000	64K	16A	250K				50			100	IM	6I	WG
KB9-2		KLM	9.3	9.4		FX	MU	C	7.0	2000	1600	45	2000							30		5I	WG
SMK40		KLM	23.5	26.0		FX	SP	C	6.3	2000	1500	170	600		45		5					3I	WG
QK547		KLO					RA	C	6.3	1200	300	48	70	500						20		RI	WG
R9585	S	KLO	.5	3.0		MEC	EM	C	6.3	700	350	32	50	400								RE	
R9586	S	KLO	.5	3.0		MEC	EM	C	6.3	700	350	32	50	400								RE	
ZV1012	#	KLO	.5	3.0		MEC	PO	C	6.3	680	350	35	510	700	10					3		RE	

CHARACTERISTIC LISTING

TYPE NUMBER	CODE	KIND	FREQUENCY		DUTY CYCLE	TUNING	MFR	OPERATION	E_f	I_f	MAXIMUM							TYPICAL					
			Min	Max							E_b	I_k	P_o	REFLECTOR COLLECTOR	E_{g_1}	HELIX VOLTAGE	GAIN	NF	PULL FACTOR	BAND WIDTH	MAG FIELD	CAVITY	COUPLING
			G_c	G_c	10^4				v	ma	v	ma	mw	v	v	v	db	db		Mc	gauss		
5777		KLO	.6	2.4		MEC	RA	C	6.3	985	400		160	625	5					8		RE	CO
6BM6	X#	KLO	.6	3.8		MEC	SY	C	6.3	650	325	18	175	250						6		RE	
6BM6A	S*	KLO	.6	3.8		MEC	SY	C	6.3	650	325	18	175	250						6		RE	
5837	X	KLO	.6	3.8		MEC	SY	C	6.3	750	325	28	175	235	10					6		RE	
ZV1010	S#	KLO	.7	3.0		MEC	PO	C	6.3	680	350	35	575	700	10					3		RE	
V190C/1M		KLO	.8	1.0		MEC	ST	C	6.3	1000	300	100	2000	300	20					4	1200	EX	CO
SRL17		KLO	.8	1.0		MEC	SP	C	6.3	1500	1000	90	3000	1500	200					9		RI	CO
R9559	S	KLO	1.0	5.4		MEC	EM	C	6.3	1200	370	55	100	400								RE	
RK6112	S	KLO	1.0	4.0		FX	EM	C	6.3	700	300	45	150	400								RE	
5981	M*	KLO	1.2	1.5		MEC	RA	C	6.3	455	250	50	134	220						5		RI	CO
5650	X	KLO	1.2	1.4		MEC	BT	C	6.3	450	250	50	165	350						6		RI	CO
L3270		KLO	1.2	1.4	30		LI	P					2M							100			
L3235		KLO	1.2	1.4	30		LI	P					4M										WG
L3231		KLO	1.2	1.4	15		LI	P					5M										WG
L3355		KLO	1.2	1.4	15		LI	P					20M										
7815	S	KLO	1.3	3.8		MEC	TO	C	6.3	600	300	30	150	350						30		RE	CO
L3257		KLO	1.3	1.3	3		LI	P					4M										
L3227		KLO	1.3	1.3	20		LI	P					5M										WG
6133	S*	KLO	1.5	3.8		MEC	RA	C	6.3	650	300		140	277	300					20		RE	CO
ZV1009	S#	KLO	1.5	6.0		MEC	PO	C	6.3	620	350	35	250	700	10					6		RE	
5836	X*	KLO	1.6	6.5		MEC	SY	C	6.3	750	325	25	60	220	10					6		RE	
6BL6	X#	KLO	1.6	6.5		MEC	SY	C	6.3	750	325	28	250	220						6		RE	
6BL6A	*	KLO	1.6	6.5		MEC		C	6.3	750	350	35	250	750	500					6		RE	CO
Z220/1G		KLO	1.7	2.3		VT	ST	C	6.3	750	350	50	250	250						16		RE	CO
V230A/1K	S	KLO	1.7	3.7		MEC	ST	C	6.3	300	350	65	300	370	40					2	1200	EX	CO
SRL7F		KLO	1.7	1.9		MEC	SP	C	6.3	2000	1000	220	10W	1000	50					20		RI	CO
2K28	X#	KLO	1.8	4.0		MEC	RA	C	6.3	660	330	45	100	500						20		RE	CO
2K28A	S*	KLO	1.8	4.0		MEC	RA	C	6.3	660	330	45	125	500						20		RE	CO
5778		KLO	1.8	4.6		MEC	RA	C	6.3	985	300		150	460	5					8		RE	CO
SRL7FC		KLO	1.8	1.9		MEC	SP	C	6.3	2000	1000	200	5000	1000								RI	CO
SRL7C		KLO	1.8	2.1		MEC	SP	C	6.3	2000	1000	220	10W	1000						20		RI	CO
SRL7GC		KLO	1.9	2.1		MEC	SP	C	6.3	2000	1000	200	5000	1000								RI	CO
SRL7G		KLO	1.9	2.2		MEC	SP	C	6.3	2000	1000	220	10W	1000	50					20		RI	CO
SRL7H		KLO	2.2	2.4		MEC	SP	C	6.3	2000	1000	220	10W	1000	50					20		RI	CO
K301	S	KLO	2.5	3.5		MEC	EE	C	6.3	600	350	35	30	400						15		RE	CO

TYPE NUMBER	CODE	KIND	FREQUENCY		DUTY CYCLE	TUNING	MFR	OPERATION	E_f	I_f	MAXIMUM							TYPICAL					
			Min	Max							E_b	I_k	P_o	REFLECTOR COLLECTOR	E_{g_1}	HELIX VOLTAGE	GAIN	NF	PULL FACTOR	BAND WIDTH	MAG FIELD	CAVITY	COUPLING
			G_c	G_c	10^4				v	ma	v	ma	mw	v	v	v	db	db		Mc	gauss		
RK6112A		KLO	2.6	3.7		FX	EM	C	6.3	700	250	34	100	350						32		RE	
RK6112B		KLO	2.6	3.7		FX	EM	C	6.3	700	250	34	100	320								RE	
726C	M#	KLO	2.7	3.0		MEC		C	6.3	440	330	35	180	250						40		RI	CO
V233A/1K	S	KLO	2.7	4.2		MEC	ST	C	6.3	300	380	65	300	400	40					2	1200	EX	CO
V235A/1K	S	KLO	2.7	4.2		MEC	ST	C	6.3	300	370	65	500	390	40					16	1200	EX	CO
2K41	M*	KLO	2.7	3.3		MEC	SP	C	6.3	1000	1250	60	2750	750	200					17		RI	CO
KR6/3	S	KLO	2.9	3.1		FX	EM	C	4.0	1300	300	40	150	140						30		RE	CO
726B	M#	KLO	2.9	3.2		MEC		P	6.3	440	300	30	150									RI	CO
KR142B		KLO	2.9	3.6			SF	C	6.3	2400	400	75	190	250						26		RI	
KR117		KLO	2.9	3.6			SF	C	6.3	1000	450	35	430	450						29		RI	
6043		KLO	3.0	3.3		MEC	RA	C	6.3	650	300		175	175	300					20		RI	CO
KR6/2	S	KLO	3.2	3.2		FX	EM	C	4.0	1300	300	40	150	140						30		RE	CO
726A		KLO	3.2	3.4		MEC	RA	C	6.3	440	380	35	180	300								RI	CO
2K42	*	KLO	3.3	4.2		MEC	SP	C	6.3	1000	1250	60	1500	750	200					30		RI	CO
55334	M	KLO	3.3	3.4		FX	AM	C	6.3	750	3000	24	10W	850	160						600	IN	CO
2K29	M#	KLO	3.4	4.0		MEC	WE	C	6.3	440	330	37	106	350						40		RI	CO
KR6/1	S	KLO	3.4	3.6		FX	EM	C	4.0	1300	300	40	150	140						30		RE	CO
Z237/1G		KLO	3.5	3.5		MEC	ST	C	6.3	750	350	55	125	200	150					42		RE	WG
TK76		KLO	3.5	4.3			TE	C	6.3	1550	600	70	380	1000						20		RI	
V238A/1K		KLO	3.5	4.3		MEC	ST	C	6.3	250	400	50	900	420	40					10	1400	EX	WG
TK7		KLO	3.5	4.3		MEC	TE	C	6.3	1550	750	82	2700	860						20		RI	CO
V237C/1K	S	KLO	3.6	3.8		MEC	ST	C	6.3	260	285	65	350	300	40					14	1200	EX	WG
2K54C	M	KLO	3.6	3.9		MEC		C	6.3	450	400	25	500	350								RI	CO
Z239/1G	S	KLO	3.6	4.2		MEC	ST	C	6.3	1000	1100	70	1200	700						45		RE	WG
TK-8		KLO	3.7	4.3		MEC	TE	C	6.3	380	330	30	250	400						60		RI	CO
1K125CA	#	KLO	3.7	4.4		MEC	EI	C	6.3	1100	1000	90	2000	250						50		RI	WG
2K56	M	KLO	3.8	4.5		MEC	WE	C	6.3	440	330	37	90	400						35		RI	CO
6236	M*	KLO	3.8	7.6		MEC	RA	C	6.3	580	1250	20	150	800	25							R	
V239C/1K	S	KLO	3.8	4.0		MEC	ST	C	6.3	260	280	65	350	300	40					14	1200	EX	WG
2K54B	M	KLO	3.8	4.1		MEC		C	6.3	450	400	25	500	350								RI	CO
V240C/2K	S	KLO	3.9	4.0		MEC	ST	C	6.3	260	270	65	350	300	40					20	1200	EX	WG
R5081		KLO	3.9	4.2		MEC	EM	C	6.3	900	800	150	4000	350						40		RI	CO
SOC258	#	KLO	C.			FX	SP	C	6.3	750	3100	20	1000							2		2I	WG
ZV1011	S#	KLO	4.0	11.0			PO	C	6.3	570	1250	22	150	800	150					20		RE	
SOC217	S#	KLO	4.0	6.0			SP	C	6.3	300	380	15	300							7		2I	CO

CHARACTERISTIC LISTING

TYPE NUMBER	CODE	KIND	FREQUENCY		DUTY CYCLE	TUNING	MFR	OPERATION	E_f	I_f	MAXIMUM							TYPICAL					
			Min	Max							E_b	I_k	P_o	REFLECTOR COLLECTOR	E_{g_1}	HELIX VOLTAGE	GAIN	NF	PULL FACTOR	BAND WIDTH	MAG FIELD	CAVITY	COUPLING
			G_c	G_c	10^4				v	ma	v	ma	mw	v	v	v	db	db		Mc	$gauss$		
V240C/1K	S	KLO	4.0	4.1		MEC	ST	C	6.3	260	280	65	350	300	40					20	1200	EX	WG
V241C/1K	S	KLO	4.0	4.2		MEC	ST	C	6.3	260	285	65	350	300	40					14	1200	EX	WG
2K54A	M	KLO	4.0	4.3		MEC		C	6.3	450	400	25	500	350								RI	CO
QK381		KLO	4.1	4.4		MEC	RA	C	6.3	440	250		4	87						30		RI	CO
V243A/1K		KLO	4.1	4.6		MEC	ST	C	6.3	300	290	65	750	310	40					20	1200	EX	WG
2K48	*	KLO	4.2	10.8		MEC	WE	C	6.3	700	1500	15	20	400						22		RE	CO
2K54DA		KLO	4.2	4.4		MEC	NE	C	6.3	450	250	12	50	160						35		RI	CO
5V55C		KLO	4.2	4.5		MEC	KK	C	6.3	450	300	30	100	260								RI	CO
2K22	M#	KLO	4.2	4.9		MEC	WE	C	6.3	4400	330	37	115	350						34		RI	CO
2K43	*	KLO	4.2	5.7		MEC	SP	C	6.3	1000	1250	60	1050	750	200					50		RI	CO
R6015	S	KLO	4.3	4.8		MEC	EM	C	6.3	900	350	70	150	175						20		RI	CO
5721	S*	KLO	4.3	8.3		MEC	RA	C	6.3	580	1250	20	250	800	25					12		RE	CO
1K75CH	#	KLO	4.3	4.3		FX	EI	C	6.3	1250	850	100	1000	500						30		RI	CO
1K75CK	#	KLO	4.3	4.3		FX	EI	C	6.3	1250	850	100	1000	500						30		RI	WG
V245C/1K		KLO	4.4	4.6		MEC	ST	C	6.3	300	260	65	200	300	40					16	1200	EX	WG
VA247C/1K		KLO	4.4	5.0		MEC	ST	C	6.3	300	390	65	300	410	40					6	1300	EX	WG
V246A/1K	S	KLO	4.4	4.8		MEC	ST	C	6.3	300	250	65	450	270	20					16	1200	EX	WG
1K125CB	#	KLO	4.4	5.0		MEC	EI	C	6.3	1100	1000	90	2300	350						40		RI	WG
1K125CC		KLO	4.4	5.0		MEC	EI	C	6.3	1250	1000	110	2600	750						35		RI	WG
R6010	S	KLO	4.4	4.8		MEC	EM	C	6.3	900	800	150	3700	290						50		RI	CO
5V55B		KLO	4.5	4.8		MEC	KK	C	6.3	450	300	30	100	260								RI	CO
V247C/1K		KLO	4.6	4.8		MEC	ST	C	6.3	300	260	65	200	300	40					16	1200	EX	WG
V246A/2K		KLO	4.6	4.9		MEC	ST	C	6.3	300	250	65	250	270	20					16	1200	EX	WG
6974		KLO	4.6	5.0		MEC	SY	C	6.3	800	800	100	2000	410				12	25			RI	WG
5V55A		KLO	4.8	5.1		MEC	KK	C	6.3	450	300	30	100	260								RI	CO
V249C/1K		KLO	4.8	5.0		MEC	ST	C	6.3	300	290	65	200	310	40					16	1200	EX	WG
TH2220J	S#	KLO	4.9	5.2		MEC	CF	C	6.3	800	750	80	700	1000								RI	WG
VA220J	#	KLO	4.9	5.2		MEC	VA	C	6.3	900	750	80	1400	380						39		RI	WG
R5222	S	KLO	5.0	11.7		MEC	EM	C	6.3	700	370	55	200	500								RE	WG
SOC150	S#	KLO	5.0	5.0		FX	SP	C	6.3	800	1100	175	10W		100							3I	CO
RK6037	S*	KLO	5.1	5.4		TH	RA	C	6.3	470	300		30	160	200					40		RI	WG
TK-38	S	KLO	5.1	5.9		MEC	BE	C	6.3	500	330	35	70	300								RI	CO
TH2412	S#	KLO	5.1	5.9		MEC	CF	C	6.3	440	350	35	70	350								RI	CO
TK-68	S#	KLO	5.1	5.4		TH	BE	C	6.3	518	330	35	80	400						30		RI	CO
QK412	S	KLO	5.1	5.9		MEC	RA	C	6.3	440	300		100	160								RI	WG

CHARACTERISTIC LISTING

TYPE NUMBER	CODE	KIND	FREQUENCY		DUTY CYCLE	TUNING	MFR	OPERATION	E_f	I_f	MAXIMUM							TYPICAL					
			Min	Max							E_b	I_k	P_o	REFLECTOR COLLECTOR	E_{g_1}	HELIX VOLTAGE	GAIN	NF	PULL FACTOR	BAND WIDTH	MAG FIELD	CAVITY	COUPLING
			G_c	G_c	10^4				v	ma	v	ma	mw	v	v	v	db	db		Mc	gauss		
6115	X	KLO	5.1	5.9		MEC	RA	C	6.3	440	330	35	100	350						50		RI	CO
6115A	S*	KLO	5.1	5.9		MEC	RA	C	6.3	440	330	32	100	175						30		RI	CO
6584	S	KLO	5.1	5.9		MEC	BE	C	6.3	500	330	35	120	300						28		RI	CO
X523C		KLO	5.3	6.0		MEC	EI	C	6.3	840	350	50	100	350						50		RI	WC
K4008		KLO	5.3	6.3		MEC	SY	C	6.3	800	750	70	1000	380						43		RI	WG
K4009		KLO	5.3	6.6		MEC	SY	C	6.3	800	750	70	1000	390						43		RI	WG
1K015CA	#	KLO	5.4	6.0		MEC	EI	C	6.3	800	350	50	100	250								RI	CO
1K015CG	#	KLO	5.4	6.0		MEC	EI	C	6.3	800	350	50	100	250								RI	WG
R9561		KLO	5.4	8.2		MEC	EM	C	6.3	1200	370	55	150	300						20		RE	WG
SRC64D-1		KLO	5.4	5.9		MEC	SP	C	6.3	800	900	110	1200	1100						50		RI	WG
7V39		KLO	5.7	8.3		MEC	HI	C	6.3	1000	1250	60	600	1000						30		RI	CO
2K44	M*	KLO	5.7	7.5		MEC	SP	C	6.3	1000	1250	60	1025	750	200					70		RI	CO
VA221K	#	KLO	5.8	6.2		MEC	VA	C	6.3	440	330	35	40	500						40		RI	WG
VA244A		KLO	5.8	6.6		MEC	VA	C	6.3	750	800	80	50	475								RI	WG
6V26		KLO	5.8	6.5		MEC	HI	C	6.3	440	330	35	100	350						40		RI	CO
6V26B	S	KLO	5.8	6.2		MEC	KK	C	6.3	450	300	30	100	190						28		RI	CO
QK549		KLO	5.8	6.4		MEC	RA	C	6.3	440	300		120	310						15		RI	WG
K4010		KLO	5.8	7.1		MEC	SY	C	6.3	800	750	70	1000	390						43		RI	WG
QK404		KLO	5.9	6.4		MEC	RA	C	6.3	440	300		120	275						20		RI	WG
QK461		KLO	5.9	6.4		MEC	RA	C	6.3	440	300		120	175						30		RI	WG
VA113		KLO	5.9	6.6		MEC	VA	C	6.3	800	750	80	135	1000						36		RI	WG
TH2220F	S#	KLO	5.9	6.2		MEC	CF	C	6.3	800	750	80	700	1000								RI	WG
K345	S	KLO	5.9	8.0		MEC	EE	C	6.3	600	750	72	1000	400						30		RI	WG
SK220F	S	KLO	5.9	6.2		MEC	SY	C	6.3	900	750	80	1100	1000					10	60		RI	WG
SK222F	S	KLO	5.9	6.2		MEC	SY	C	6.3	900	750	80	1100	1000						60		RI	WG
VA222F	S#	KLO	5.9	6.2		MEC	VA	C	6.3	800	750	80	1100	1000						37		RI	WG
6V431		KLO	5.9	6.2		MEC	TO	C	6.3	800	750	72	1200	400						45		RI	WG
VA220F	S#	KLO	5.9	6.2		MEC	VA	C	6.3	800	750	80	1200	1000						36		RI	WG
QKK965		KLO	5.9	6.4		MEC	RA	C	6.3	675	800	100	1500	600						35		RI	CO
QK754		KLO	5.9	6.4		MEC	RA	C	6.3	675	1000	100	1800	500						36		RI	CO
SRC43A		KLO	5.9	6.2		MEC	SP	C	6.3	800	900	110	2000	850						60		RI	WG
6V26A	X	KLO	6.1	6.5		MEC		C	6.3	450	300	30	100	190						28		RI	CO
TH2220E	S#	KLO	6.1	6.4		MEC	CF	C	6.3	800	750	80	700	1000								RI	WG
K841B		KLO	6.1	6.4		MEC	SY	C	6.3	800	750	80	1000	400						43		RI	WG
6468		KLO	6.1	6.4		MEC	SY	C	6.3	800	750	80	1000	400								RI	WG

CHARACTERISTIC LISTING

TYPE NUMBER	CODE	KIND	FREQUENCY		DUTY CYCLE	TUNING	MFR	OPERATION	E_f	I_f	MAXIMUM								TYPICAL					
			Min	Max							E_b	I_k	P_o	REFLECTOR COLLECTOR	E_{g_1}	HELIX VOLTAGE	GAIN	NF	PULL FACTOR	BAND WIDTH	MAG FIELD	CAVITY	COUPLING
			G_c	G_c	10^4				v	ma	v	ma	mw	v	v	v	db	db		Mc	gauss		
SK220E	S	KLO	6.1	6.4		MEC	SY	C	6.3	900	750	80	1100	1000					10	60		RI	WG
SK222E	S	KLO	6.1	6.4		MEC	SY	C	6.3	900	750	80	1100	1000						60		RI	WG
VA222E	S#	KLO	6.1	6.4		MEC	VA	C	6.3	800	750	80	1100	1000						37		RI	WG
6V432		KLO	6.1	6.4		MEC	TO	C	6.3	800	750	72	1200	400						45		RI	WG
VA220E	S#	KLO	6.1	6.4		MEC	VA	C	6.3	800	750	80	1200	1000						36		RI	WG
SRC43B		KLO	6.1	6.4		MEC	SP	C	6.3	800	900	110	2000	850						60		RI	WG
2K26	X*	KLO	6.2	7.1		MEC	WE	C	6.3	4400	330	35	100	350						45		RI	CO
KS7-85		KLO	6.2	7.1		MEC	MU	C	6.3	500	330	35	100	350						40		RI	CO
KS7-85A		KLO	6.2	7.4		MEC	MU	C	6.3	500	330	35	110	350						49		RI	CO
5976	M	KLO	6.2	7.4		MEC	RA	C	6.3	440	330	35	110	350						49		RI	CO
TK6		KLO	6.3	7.7		MEC	TE	C	6.3	410	330	30	190	400	50					40		RI	CO
K4011		KLO	6.3	7.5		MEC	SY	C	6.3	800	750	70	1000	360						43		RI	WG
7V26		KLO	6.4	7.2		MEC	HI	C	6.3	440	330	35	100	350						45		RI	CO
7V26B	X	KLO	6.4	6.9		MEC		C	6.3	450	300	30	100	190						28		RI	CO
TH2220G	S#	KLO	6.4	6.6		MEC	CF	C	6.3	800	750	80	700	1000								RI	WG
VA222G	S#	KLO	6.4	6.6		MEC	VA	C	6.3	800	750	80	1100	1000						37		RI	WG
6V433		KLO	6.4	6.6		MEC	TO	C	6.3	800	750	72	1200	400						45		RI	WG
VA220G	S#	KLO	6.4	6.6		MEC	VA	C	6.3	800	750	80	1200	1000						36		RI	WG
VA244B		KLO	6.5	7.3		MEC	VA	C	6.3	750	800	80	50	475								RI	WG
QK531		KLO	6.6	6.9		MEC	RA	C	6.3	440	300		120	275						15		RI	WG
VA114		KLO	6.6	7.2		MEC	VA	C	6.3	800	750	80	135	1000						36		RI	WG
7V20D	S	KLO	6.6	6.9		MEC	KK	C	6.3	800	750	80	700	1000								RI	WG
TH2220D	S#	KLO	6.6	6.9		MEC	CF	C	6.3	800	750	80	700	1000								RI	WG
K840B		KLO	6.6	6.9		MEC	SY	C	6.3	800	750	80	1000	400						43		RI	WG
6469		KLO	6.6	6.9		MEC	SY	C	6.3	800	750	80	1000	400								RI	WG
SK220D	S	KLO	6.6	6.9		MEC	SY	C	6.3	900	750	80	1100	1000					10	60		RI	WG
SK222D	S	KLO	6.6	6.9		MEC	SY	C	6.3	900	750	80	1100	1000						60		RI	WG
VA222D	S#	KLO	6.6	6.9		MEC	VA	C	6.3	800	750	80	1100	1000						37		RI	WG
7V43D		KLO	6.6	6.9		MEC	TO	C	6.3	800	750	72	1200	400						45		RI	WG
7V434		KLO	6.6	6.9		MEC	TO	C	6.3	800	750	72.	1200	400						45		RI	WG
VA220D	S#	KLO	6.6	6.9		MEC	VA	C	6.3	800	750	80	1200	1000						36		RI	WG
QKK755		KLO	6.6	6.9		MEC	RA	C	6.3	675	800	100	1500	600						35		RI	CO
6390	S*	KLO	6.7	11.0		MEC	RA	C	6.3	580	1250	20	60	700	25							RI	CO
7V26A	X	KLO	6.8	7.2		MEC		C	6.3	450	300	30	100	190						28		RI	CO
7V435		KLO	6.8	7.2		MEC	TO	C	6.3	800	750	72	1200	400						45		RI	WG

TYPE NUMBER	CODE	KIND	FREQUENCY		DUTY CYCLE	TUNING	MFR	OPERATION	E_f	I_f	MAXIMUM							TYPICAL					
			Min	Max							E_b	I_k	P_o	REFLECTOR COLLECTOR	E_{g_1}	HELIX VOLTAGE	GAIN	NF	PULL FACTOR	BAND WIDTH	MAG FIELD	CAVITY	COUPLING
			G_c	G_c	10^4				v	ma	v	ma	mw	v	v	v	db	db		Mc	gauss		
SRC43E		KLO	6.8	7.2		MEC	SP	C	6.3	800	900	110	2000	850						60		RI	WG
QK532		KLO	6.9	7.1		MEC	RA	P	6.3	440	300		120	275						15		RI	WG
TH2220C	S#	KLO	6.9	7.1		MEC	CF	C	6.3	800	750	80	700	1000								RI	WG
KS7-1000C		KLO	6.9	7.1		MEC	MU	C	6.3	800	800	80	1100	1000						28		RI	WG
SK220C	S	KLO	6.9	7.1		MEC	SY	C	6.3	900	750	80	1100	1000					10	60		RI	WG
SK222C	S	KLO	6.9	7.1		MEC	SY	C	6.3	900	750	80	1100	1000						60		RI	WG
VA222C	S#	KLO	6.9	7.1		MEC	VA	C	6.3	800	750	80	1100	1000						37		RI	WG
VA220C	S#	KLO	6.9	7.1		MEC	VA	C	6.3	800	750	80	1200	1000						36		RI	WG
QKK756		KLO	6.9	7.1		MEC	RA	C	6.3	675	800	100	1500	600						35		RI	CO
VA221C	#	KLO	7.0	7.2		MEC	VA	C	6.3	440	330	35	40	500						40		RI	WG
7V40	M	KLO	7.0	7.8		MEC		C	6.3	450	300	30	60	200						28		RI	CO
8V26		KLO	7.0	7.8		MEC	HI	C	6.3	440	330	35	100	350						40		RI	CO
SRX232	S#	KLO	7.0	8.6		MEC	SP	C	6.3	450	400	55	100	300						20		RI	WG
SRX233	S#	KLO	7.0	8.6		MEC	SP	C	6.3	450	400	55	100	300						20		RI	WG
QK623		KLO	7.0	7.6		MEC	RA	C	6.3	440	300		120	380						15		RI	CO
R9562		KLO	7.0	11.7		MEC	EM	C	6.3	1200	370	55	200	350						20		RE	WG
V271C/1M		KLO	7.0	7.3		MEC	ST	C	6.3	280	600	65	750	600	50					14	IM	EX	WG
VA225B	#	KLO	7.0	8.0		MEC	VA	C	6.3	800	750	75	1000	350						40		RI	WG
VA225C	#	KLO	7.0	8.0		MEC	VA	C	6.3	800	750	75	1000	350						40		RI	WG
R9516		KLO	7.0	7.3		MEC	EM	C	12.6	1100	1200	140	2200	300						60		RI	WG
VA244C		KLO	7.1	7.9		MEC	VA	C	6.3	750	800	80	50	475								RI	WG
QK422		KLO	7.1	8.1		MEC	RA	C	6.3	440	350	42	100	350						25		RI	WG
QK752		KLO	7.1	7.8		MEC	RA	C	6.3	440	330	35	120	380						25		RI	CO
QKK752	S	KLO	7.1	7.8		MEC	RA	C	6.3	440	330	35	120	380						15		RI	CO
RK6586		KLO	7.1	8.1		MEC	RA	C	6.3	440	300		140	200								RI	CO
QK645		KLO	7.1	8.5		MEC	RA	C	6.3	440	375		200	225						18		RI	CO
TH2220B	S#	KLO	7.1	7.4		MEC	CF	C	6.3	800	750	80	700	1000								RI	WG
K839B		KLO	7.1	7.4		MEC	SY	C	6.3	800	750	80	1000	400						43		RI	WG
K4160		KLO	7.1	7.4		MEC	SY	C	6.3	800	750	80	1000	400					10	43		RI	WG
6470		KLO	7.1	7.4		MEC	SY	C	6.3	800	750	80	1000	400								RI	WG
SK220B	S	KLO	7.1	7.4		MEC	SY	C	6.3	900	750	80	1100	1000					10	60		RI	WG
SK222B	S	KLO	7.1	7.4		MEC	SY	C	6.3	900	750	80	1100	1000						60		RI	WG
VA222B	S#	KLO	7.1	7.4		MEC	VA	C	6.3	800	750	80	1100	1000						37		RI	WG
7V436		KLO	7.1	7.4		MEC	TO	C	6.3	800	750	72	1200	400						45		RI	WG
VA220B	S#	KLO	7.1	7.4		MEC	VA	C	6.3	800	750	80	1200	1000						36		RI	WG

CHARACTERISTIC LISTING

545480 O-61-6

TYPE NUMBER	CODE	KIND	FREQUENCY		DUTY CYCLE	TUNING	MFR	OPERATION	E_f	I_f	MAXIMUM							TYPICAL					
			Min	Max							E_b	I_k	P_o	REFLECTOR COLLECTOR	E_{g_1}	HELIX VOLTAGE	GAIN	NF	PULL FACTOR	BAND WIDTH	MAG FIELD	CAVITY	COUPLING
			G_c	G_c	10^4				v	ma	v	ma	mw	v	v	v	db	db		Mc	$gauss$		
QK758		KLO	7.1	7.8		MEC	RA	C	6.3	650	750		1300									RI	CO
QKK758	S	KLO	7.1	7.8		MEC	RA	C	6.3	675	1000	100	1500	500						35		RI	CO
QK661		KLO	7.1	8.5		MEC	RA	C	6.3	675	1000	100	1800	500						36		RI	WG
SRC43F		KLO	7.1	7.4		MEC	SP	C	6.3	800	900	110	2000	850						60		RI	WG
VA115		KLO	7.2	7.7		MEC	VA	C	6.3	800	750	80	135	1000						36		RI	WG
V275C/1M		KLO	7.3	7.6		MLC	ST	C	6.3	280	600	65	750	600	50					14	IM	EX	WG
TH2220A	S#	KLO	7.4	7.8		MEC	CF	C	6.3	800	750	80	700	1000								RI	WG
VA220A	S#	KLO	7.4	7.8		MEC	VA	C	6.3	800	750	80	1000	1000						32		RI	WG
VA222A	S#	KLO	7.4	7.8		MEC	VA	C	6.3	800	750	80	1000	1000						32		RI	WG
SK220A	S	KLO	7.4	7.8		MEC	SY	C	6.3	900	750	80	1100	1000					10	60		RI	WG
SK222A	S	KLO	7.4	7.8		MEC	SY	C	6.3	900	750	80	1100	1000						60		RI	WG
8V43		KLO	7.4	7.7		MEC	TO	C	6.3	800	750	72	1200	400						45		RI	WG
8V437		KLO	7.4	7.7		MEC	TO	C	6.3	800	750	72	1200	400						45		RI	WG
2K39	*	KLO	7.5	10.3		MEC	SP	C	6.3	1000	1250	60	770	750	200					40		RI	CO
VA225A	#	KLO	7.5	8.5		MEC	VA	C	6.3	800	750	75	1000	350						40		RI	WG
QKK753	S	KLO	7.7	8.4		MEC	RA	C	6.3	440	330	35	120	380						15		RI	CO
QK753		KLO	7.8	8.4		MEC	RA	C	6.3	440	330	35	120	380						25		RI	CO
SK220Z	S	KLO	7.8	8.1		MEC	SY	C	6.3	900	750	80	1000	1000					10	60		RI	WG
VA220Z	S#	KLO	7.8	8.1		MEC	VA	C	6.3	800	750	80	1000	1000						30		RI	WG
SK222Z	S	KLO	7.8	8.1		MEC	SY	C	6.3	900	750	80	1000	1000						60		RI	WG
VA222Z	S#	KLO	7.8	8.1		MEC	VA	C	6.3	800	750	80	1000	1000						30		RI	WG
QK759		KLO	7.8	7.8		MEC	RA	C	6.3	650	750		1300									RI	CO
QKK759	S	KLO	7.8	8.4		MEC	RA	C	6.3	675	1000	100	1500	500						35		RI	CO
BL829	#	KLO	8.0	9.5		FX	BL				525		500										
VA508	#	KLO	8.0	9.5		FX	VA						1000										
K359	#	KLO	8.1	8.8		MEC	EE	C	6.3	1200	350	45	90	150						55		RI	WG
K317		KLO	8.2	8.3		MEC	EE	C	6.3	600	350	35	20	320						30		RI	WG
SRX262	#	KLO	8.2	12.4		FX	SP	C	6.3	1300	400	45	100	400						40		RI	WG
SOX254	#	KLO	8.2	12.4		FX	SP	C	6.3	800	515	15	450							12		2I	WG
V55	#	KLO	8.2	11.5		MEC	VA	C	6.3	1200	550	70	800	360						60		RI	WG
V55B	#	KLO	8.2	11.5		MEC	VA	C	6.3	1200	550	70	800	360						60		RI	WG
SOX239	#	KLO	8.2	12.4		FX	SP	C	6.3	500	2900	17	1000							6		2I	WG
SRX265	#	KLO	8.2	8.8		MEC	SP	C	6.3	1300	700	58	1000	600						12		RI	WG
SOX241	#	KLO	8.2	12.4		FX	SP	C	6.3	300	900	33	1500							15		2I	WG
1K015XA	#	KLO	8.4	9.6		MEC	EI	C	6.3	800	350	50	100	500						60		RI	CO

TYPE NUMBER	CODE	KIND	FREQUENCY		DUTY CYCLE	TUNING	MFR	OPERATION	E_f	I_f	MAXIMUM							TYPICAL					
			Min	Max							E_b	I_k	P_o	REFLECTOR COLLECTOR	E_{g_1}	HELIX VOLTAGE	GAIN	NF	PULL FACTOR	BAND WIDTH	MAG FIELD	CAVITY	COUPLING
			G_c	G_c	10^4				v	ma	v	ma	mw	v	v	v	db	db		Mc	gauss		
1K015XG	#	KLO	8.4	9.6		MEC	EI	C	6.3	800	350	50	100	500						60		RI	WG
V262		KLO	8.4	10.0		MEC	VA	C	6.3	1200	400	42	215	290						45		RI	WG
BL811		KLO	8.5	9.7			BL	C			210		15									R	
BL801		KLO	8.5	9.6		MEC	BL	C	6.3	450	350	52	20	500						30		RI	WG
6845	X#	KLO	8.5	9.7		TH		C	6.3	518	350	32	20	350								RI	CO
6940	X#	KLO	8.5	9.7		TH		C	6.3	518	350	32	20	350								RI	CO
1K20XS	#	KLO	8.5	9.3		MEC	EI	C	6.3	800	350	50	25	500						20		RI	WG
VA217	#	KLO	8.5	9.6		MEC	VA	C	6.3	1200	250	21	25	70						40		RI	WG
6316	X*	KLO	8.5	10.0		MEC	VA	C	6.3	1200	350	52	25	1000						45		RI	WG
6780	S	KLO	8.5	10.0		MEC	BL	C	6.3	1200	350	42	25	1000					20			RI	WG
TK-90	#	KLO	8.5	10.0		MEC	BE	C	6.3	518		32	30	145						40			CO
SRX230	S#	KLO	8.5	10.5		MEC	SP	C	6.3	450	300	26	30	300						40		RI	WG
SRX231	S#	KLO	8.5	10.5		MEC	SP	C	6.3	450	300	26	30	300						40		RI	WG
SRX249		KLO	8.5	10.5		MEC	SP	C	6.3	438	300	35	30	300						30		RI	WG
2K25	X	KLO	8.5	9.7		MEC	WE	C	6.3	4400	330	37	32	400						60		RI	CO
2K45	S	KLO	8.5	9.7		TH	WE	C	6.3	760	350	30	34	350						85		RI	CO
6116	X*	KLO	8.5	9.7		TH	RA	C	6.3	520	350	32	34	350						45		RI	CO
KS9-20A	S#	KLO	8.5	9.7		MEC	MU	C	6.3	600	330	37	35	400						40		RI	CO
MXK-19		KLO	8.5	10.0		MEC	ME	C			300		35	200									
QK742		KLO	8.5	9.6		MEC	RA	C	6.3	1200	250		35									RE	WG
6781	S#	KLO	8.5	10.0		MEC		C	6.3	1200	350	42	35	1000					20			RI	WG
KS9-30		KLO	8.5	9.6		MEC	MU	C	6.3	500	350	52	37	500						41		RI	WG
MXK-12		KLO	8.5	10.0		MEC	ME	C			300		40	200									WG
VA201	#	KLO	8.5	9.6		MEC	VA	C	6.3	1200	350	55	40	500						40		RI	WG
VA201B	S#	KLO	8.5	9.6		MEC	VA	C	6.3	1200	350	55	40	500						40		RI	WG
6975	X*	KLO	8.5	9.6		MEC	VA	C	6.3	450	350	52	40	500						50		RI	WG
K311		KLO	8.5	9.5		MEC	EE	C	6.3	600	350	35	45	365						30		RI	WG
K342	#	KLO	8.5	9.0		MEC	EE	C	6.3	600	350	35	45	275						35		RI	WG
6315	X#	KLO	8.5	10.0		MEC	VA	C	6.3	1200	385	74	55	1000						60		RI	WG
SRX92	*	KLO	8.5	10.5		MEC	SP	C	6.3	450	330	37	60	500						56		RI	WG
VA217C	#	KLO	8.5	9.6		MEC	VA	C	6.9	1200	350	45	60	20						50		RI	WG
K351	S#	KLO	8.5	9.6		MEC	EE	C	6.3	1200	300	40	65	185						35		RI	WG
6311	S#	KLO	8.5	10.0		MEC	VA	C	6.3	1200	350	42	70	1000						40		RI	WG
6312	X*	KLO	8.5	10.0		MEC	VA	C	6.3	1200	350	42	70	1000						40		RI	WG
BL807		KLO	8.5	10.5			BL	C			350		100									R	

CHARACTERISTIC LISTING

TYPE NUMBER	CODE	KIND	FREQUENCY		DUTY CYCLE	TUNING	MFR	OPERATION	E_f	I_f	MAXIMUM							TYPICAL					
			Min	Max							E_b	I_k	P_o	REFLECTOR COLLECTOR	E_{g_1}	HELIX VOLTAGE	GAIN	NF	PULL FACTOR	BAND WIDTH	MAG FIELD	CAVITY	COUPLING
			G_c	G_c	10^4				v	ma	v	ma	mw	v	v	v	db	db		Mc	gauss		
BL818		KLO	8.5	10.0			BL	C			350		100									R	
V290	S#	KLO	8.5	10.5		MEC	VA	C	6.3	1200	385	74	120	1000						65		RI	WG
BL812		KLO	8.5	9.6			BL	C			300		120									R	
6314	X#	KLO	8.5	10.5		MEC	VA	C	6.3	1200	385	74	120	1000						65		RI	WG
6310	X*	KLO	8.5	10.0		MEC	VA	C	6.3	1200	350	42	125	1000						48		RI	WG
6313	S#	KLO	8.5	10.5		MEC	VA	C	6.3	1200	385	74	140	1000						82		RI	WG
VA157		KLO	8.5	10.0		MEC	VA	C	6.3	1200	350	60	360	255						90		RI	WG
BL825	#	KLO	8.5	10.0		MEC	BL	C	6.3	1200	500	70	500	450						40		RI	WG
V58	S#	KLO	8.5	10.0		MEC	VA	C	6.3	1200	500	60	750	1000						75		RI	WG
V58C	S#	KLO	8.5	10.0		MEC	VA	C	6.3	1200	500	60	750	1000						75		RI	WG
K350		KLO	8.5	10.0		MEC	EE	C	6.3	1700	980	130	1200							12		2I	WG
DX122	X	KLO	8.5	10.5		FX		C	11.0	1200	2750	35	5000					6				IN	WG
K336	S	KLO	8.5	10.0		MEC	EE	C	6.3	1700	1300	180	6500							22		RI	WG
PKX10	M	KLO	8.5	10.0		FX	AM	C			4500	75	20W										WG
DX123	X	KLO	8.5	10.5		FX		C	11.0	1200	4350	71	33W					6				IN	WG
PKX4	X	KLO	8.5	10.0		FX		C			8800	210	150W										WG
PKX2	M	KLO	8.5	10.0		MEC		C			9000	200	200W										WG
PKX3	M	KLO	8.5	10.0		FX		C			9000	200	200W										WG
PKX9	M	KLO	8.5	10.0		MEC		C			9000	200	200W										WG
DX124	X	KLO	8.5	10.5		FX		C	11.0	1200	8800	180	210W					6				IN	WG
BL806		KLO	8.6	9.9			BL	C			500		15									R	
KT9-150W		KLO	8.6	10.0		MEC	MU	C	6.3	800	10K	250	180W	10K	250							2I	WG
55395	M	KLO	8.6	10.0		MEC	AM	C	6.3	800	9000	200	210W		50							2I	WG
BL830	#	KLO	8.7	8.8		MEC	BL	C	6.3	450	350	52	15	500						30		RE	WG
KS9-20	S#	KLO	8.7	9.5		MEC	MU	C	6.3	600	330	32	25	400						40		RI	CO
723A/B	X	KLO	8.7	9.5		MEC		C	6.3	440	330	32	33	400						40		RI	CO
SZ21		KLO	8.7	10.2		FX	FE	C	6.0	2300	8000	40	20W					I	2			2I	WG
SZ11		KLO	8.7	9.7		FX	FE	C	5.7	9500	11K	560	650W					14	15		IM	2I	WG
BL802		KLO	8.8	9.2			BL	C	6.3	1300	350	60	4	300								RE	
K308	S	KLO	8.8	8.9		MEC	EE	C	6.3	600	350	35	40	220						40		RI	WG
KS9-40		KLO	9.0	9.5		MEC	MU	C	6.3	700	350	40	40	400						30		RI	WG
K324	S	KLO	9.0	10.0		MEC	EE	C	6.3	600	350	35	45	400						30		RI	WG
K337	#	KLO	9.0	10.0		MEC	EE	C	6.3	600	350	35	45	400						24		RI	WG
BL815		KLO	9.1	9.2			BL	C			200		15									R	
K315		KLO	9.1	9.2		MEC	EE	C	6.3	600	350	35	20	270						20		RI	WG

TYPE NUMBER	CODE	KIND	FREQUENCY		DUTY CYCLE	TUNING	MFR	OPERATION	E_f	I_f	MAXIMUM							TYPICAL					
			Min	Max							E_b	I_k	P_o	REFLECTOR COLLECTOR	E_{g_1}	HELIX VOLTAGE	GAIN	NF	PULL FACTOR	BAND WIDTH	MAG FIELD	CAVITY	COUPLING
			G_c	G_c	10^4				v	ma	v	ma	mw	v	v	v	db	db		Mc	$gauss$		
BL820		KLO	9.1	9.1		FX	BL	C			300		40									R	
R9538		KLO	9.1	9.3		MEC	EM	C	6.3	1200	370	55	60	210						20		RE	WG
1K20XK	#	KLO	9.2	10.0		MEC	EI	C	6.3	800	350	50	25	500						20		RI	WG
K305	S	KLO	9.2	9.5		MEC	EE	C	6.3	600	350	35	25	170						35		RI	WG
R9501	S	KLO	9.2	9.2		FX	EM	C	6.3	700	370	55	35	200						30		RE	WG
BL819		KLO	9.2	9.2		FX	BL	C			300		40									R	
BL824		KLO	9.2	9.5			BL	C			300		40									RI	
VA232	#	KLO	9.2	10.0		MEC	VA	C	6.3	1200	375	45	335	300						40		RI	WG
K300		KLO	9.3	9.5		MEC	EE	C	6.3	600	350	35	30	150						30		RI	WG
K302	S	KLO	9.3	9.5		MEC	EE	C	6.3	600	350	35	30	165						30		RI	WG
K340		KLO	9.3	9.5		MEC	EE	C	6.3	600	300	25	35	175						40		RI	CO
R9539		KLO	9.3	9.5		MEC	EM	C	6.3	1200	370	55	60	220						20		RE	WG
BL831	#	KLO	9.3	9.3		FX	BL	C	6.3	1200	350	50	100	1000						20		RI	WG
BL832	#	KLO	9.3	9.3		FX	BL	C	6.3	1200	350	50	100	1000						20		RI	WG
K321		KLO	9.4	9.6		MEC	EE	C	6.3	600	350	35	25	180						30		RI	WG
K312	S	KLO	9.4	9.6		MEC	EE	C	6.3	600	350	35	30	180						30		RI	WG
R9540		KLO	9.5	9.7		MEC	EM	C	6.3	1200	370	55	60	230						20		RE	WG
KRN3/1	S	KLO	9.6	9.9		MEC	EM	C	4.0	1300	1500	10	25	250			25					RE	WG
K313		KLO	9.6	9.8		MEC	EE	C	6.3	600	350	35	25	185						30		RI	WG
K323		KLO	9.6	9.8		MEC	EE	C	6.3	600	350	35	25	185						30		RI	WG
K328		KLO	9.6	9.7		MEC	EE	C	6.3	600	350	35	25	190						30		RI	WG
K335	S	KLO	9.6	9.7		MEC	EE	C	6.3	600	350	35	25	180						30		RI	WG
VA210B	#	KLO	9.6	10.8		MEC	VA	C	6.3	1200	300	35	30	175						40		RI	WG
QK414		KLO	9.7	10.2		MEC	RA	C	6.3	440	300		20	183						50		RI	WG
R9541		KLO	9.7	9.9		MEC	EM	C	6.3	1200	370	55	60	240						20		RE	WG
VA242	#	KLO	9.8	9.8		FX	VA	C	6.3	1200	525	70	915	350						55		RI	WG
QKK839		KLO	9.8	10.5		FX	RA	C	5.0	9000	14K	700	2K									RI	WG
R9542		KLO	9.9	10.1		MEC	EM	C	6.3	1200	370	55	60	250						20		RE	WG
1K20XD	#	KLO	10.0	10.8		MEC	EI	C	6.3	800	350	50	25	500						20		RI	WG
R9543		KLO	10.1	10.6		MEC	EM	C	6.3	1200	370	55	60	260						20		RE	WG
BL814		KLO	10.4	12.3			BL	C			400		150									R	
TK-61	S#	KLO	10.5	10.5		FX	BE	C	6.3	518	350	32	20	350						35		RI	CO
VA204		KLO	10.5	10.5		FX	VA						20										
VA218	#	KLO	10.5	10.5		FX	VA	C	6.3	450	350	37	62	250								RI	WG
K353	S	KLO	10.5	12.2		MEC	EE	C	6.3	1200	400	60	250	450						60		RI	WG

CHARACTERISTIC LISTING

TYPE NUMBER	CODE	KIND	FREQUENCY		DUTY CYCLE	TUNING	MFR	OPERATION	E_f	I_f	MAXIMUM							TYPICAL					
			Min	Max							E_b	I_k	P_o	REFLECTOR COLLECTOR	E_{g_1}	HELIX VOLTAGE	GAIN	NF	PULL FACTOR	BAND WIDTH	MAG FIELD	CAVITY	COUPLING
			G_c	G_c	10^4				v	ma	v	ma	mw	v	v	v	db	db		Mc	gauss		
K358	S	KLO	10.5	12.2		MEC	EE	C	6.3	1200	400	60	250	450						60		RI	WG
V54	S	KLO	10.5	12.2		MEC	VA	C	6.3	1200	500	70	410	370						60		RI	WG
V154	S#	KLO	10.5	12.2		MEC	VA	C	6.3	1200	400	70	410	370						60			WG
X821		KLO	10.5	13.2			EI	C					1000									R	
R9544		KLO	10.6	11.0		MEC	EM	C	6.3	1200	370	55	45	300						20		RE	WG
K357		KLO	10.7	10.7		MEC	EE	C	6.3	600	250	15	12	100						30		RI	WG
K361		KLO	10.7	10.7		MEC	EE	C	6.3	600	300	25	27	200						20		RI	WG
1K20KA	#	KLO	10.7	11.7		MEC	EI	C	6.3	800	350	50	40	500						20		RI	WG
V53B		KLO	10.7	11.7		MEC	VA	C	6.3	1200	400	32	109	250						40		RI	WG
VA249	#	KLO	11.0	11.0		FX	VA	C	6.3	450	350	50	121	350						30		RI	WG
VA246	#	KLO	11.0	14.0		FX	VA						500										
K343		KLO	12.0	14.5		MEC	EE	C	6.3	600	350	30	40	250						80		RI	WG
QK448		KLO	12.0	13.8		MEC	RA	C	6.3	440	300		85	275						60		RI	WG
K4203		KLO	12.1	12.8			SY	C					120										
QKK822		KLO	12.2	12.7		MEC	RA	C	6.3	440	400	45	100	380						35		RI	CO
QKK833		KLO	12.2	12.7		MEC	RA	C	6.3	675	750	75	500	450						35		RI	CO
VA237		KLO	12.2	12.7		MEC	VA						700										
SRU95	#	KLO	12.4	15.5		MEC	SP	C	6.3	550	350	40	70	350						82		RI	WG
X12		KLO	12.4	18.0		MEC	VA	C	6.3	450	625	60	300	275						65		RI	WG
SOU201	#	KLO	12.5	15.0		MEC	SP	C	6.3	1600	1700	140	15W							30		21	WG
PKX5	M	KLO	12.8	14.8		FX		C			3600	50	7000										WG
SOU245	#	KLO	13.0	13.5		FX	SP	C	6.3	1700	1750	140	5000							25		21	WG
VA504B	#	KLO	13.3	13.3		FX	VA						15W									21	
VA64G	#	KLO	13.3	13.3		FX	VA	C	6.6	1000	3150	77	18W									21	WG
VA64F	#	KLO	13.5	13.5		FX	VA	C	6.6	1000	3150	77	18W									21	WG
K346		KLO	14.5	17.0		MEC	EE	C	6.3	600	350	30	45	250						120		RI	WG
SRU55	#	KLO	14.5	17.0		MEC	SP	C	6.3	550	350	40	75	350						90		RI	WG
SRU266	#	KLO	15.0	17.0		MEC	SP	C	6.3	550	300	35	20	100								RI	WG
TK-84	#	KLO	15.0	17.0		TH	BE	C			300		30									RI	WG
SRU216	#	KLO	15.0	17.0		MEC	SP	C	6.3	550	350	31	45	500						100		RI	WG
SRU226	#	KLO	15.0	17.0		MEC	SP	C	6.3	550	300	35	45	160						45		RI	WG
RK6573	S	KLO	15.5	17.0		MEC	RA	C	6.3	600	330	45	40	300						75		RI	WG
SRU55A	#	KLO	15.7	17.0		MEC	SP	C	6.3	550	350	35	45	350						92		RI	WG
6178	S*	KLO	15.8	16.2		MEC	RA	C	6.3	600	330	45	25	300						75		RI	WG
SRU210	#	KLO	15.8	16.2		MEC	SP	C	6.3	550	350	35	40	500						92		RI	WG

CHARACTERISTIC LISTING

TYPE NUMBER	CODE	KIND	FREQUENCY		DUTY CYCLE	TUNING	MFR	OPERATION	E_f	I_f	MAXIMUM							TYPICAL					
			Min	Max							E_b	I_k	P_o	REFLECTOR COLLECTOR	E_{g_1}	HELIX VOLTAGE	GAIN	NF	PULL FACTOR	BAND WIDTH	MAG FIELD	CAVITY	COUPLING
			G_c	G_c	10^4				v	ma	v	ma	mw	v	v	v	db	db		Mc	gauss		
VA94	#	KLO	16.0	17.0		MEC	VA	C	6.3	1200	350	35	20	500						55		RI	WG
QKK815	#	KLO	16.0	17.0		MEC	RA	C	6.3	1250	350	45	20	500						55		RI	WG
R9520		KLO	16.2	17.2		MEC	EM	C	6.3	600	370	45	30	100						45		RI	WG
VA240	#	KLO	17.0	19.0		FX	VA						200										
QK306	S	KLO	18.0	22.0		MEC	RA	C	6.3	580	2300	9	40	500	100					40		RI	WG
RK6253	S	KLO	18.0	22.0		MEC	RA	C	6.3	580	2300	9	40	500	100					40		RI	WG
R9622		KLO	18.0	22.5		MEC	EM	C	6.3	800	2200	15	100	300						60		RI	WG
R9621		KLO	20.0	24.0		MEC	EM	C	6.3	800	2200	15	100	300						60		RI	WG
12RK3	#	KLO	21.0	25.0		MEC	EB	C			3000		30									RI	WG
12RK4	#	KLO	21.0	25.0		MEC	EB	C			3000		500									RI	WG
12TFK2		KLO	21.0	25.0		MEC	EB	C	6.3	2300	4000	150	8000		1K						IM	IN	WG
12FK1		KLO	21.0	25.0		FX	EB	C	6.3	2300	4000	150	10W		1K						IM	IN	WG
2K33	S*	KLO	22.0	25.0		MEC	RA	C	6.3	580	2300	9	40	500	100					40		RI	WG
RK6254	S	KLO	22.0	25.0		MEC	RA	C	6.3	580	2300	9	40	500	100					40		RI	WG
24V10		KLO	22.0	26.0		MEC	OK	C	6.3	700	2200	1	50	500	200					55		RI	
VA96	#	KLO	22.0	25.0		FX	VA	C	6.3	1200	800	40	55	225						110		RI	WG
R9602		KLO	22.0	26.0		MEC	EM	C	6.3	800	2200	15	100	300						60		RI	
TK-60	S#	KLO	23.2	24.8		MEC	BE	C	6.3	750	330	30	10	300						55		RI	WG
6541	S#	KLO	23.2	24.8		MEC	BE	C	6.3	510	330	30	10	300						55		RI	WG
2K50	X*	KLO	23.5	24.5		TH	WE	C	6.3	755	330	28	10	150						125		RI	WG
R9547		KLO	24.0	27.8		MEC	EM	C	6.3	800	2200	15	60	300						60		RI	WG
QK463		KLO	24.5	27.5		MEC	RA	C	6.3	580	1800		40	250	125					40		RI	WG
QK289		KLO	27.3	30.0		MEC	RA	C	6.3	580	2500	15	20	450	250							RI	WG
R9518		KLO	27.8	32.2		MEC	EM	C	6.3	800	2200	15	60	300						60		RI	WG
30V10		KLO	28.0	32.0		MEC	OK	C	6.3	700	2200	12	40	500	200					60		RI	WG
QK290		KLO	29.7	33.5		MEC	RA	C	6.3	580	2500	15	20	450	250							RI	WG
33V10		KLO	30.5	34.5		MEC	OK	C	6.3	700	2200	12	50	500	200					80		RI	
DX184	M	KLO	31.0	36.0		MEC		C	6.3	800	2250	15	100	300						60		IN	WG
55335	M	KLO	31.0	36.0		MEC	AM	P	6.3	800	2250	15	100										WG
R9546		KLO	32.0	37.5		MEC	EM	C	6.3	800	2200	15	40	300						60		RI	WG
VA97B	#	KLO	32.6	34.0		MEC	VA	C	6.3	1200	425	50	20	500						88		RI	WG
SRV38	S#	KLO	33.0	36.0		MEC	SP	C	6.3	600	425	40	25	400						100		RI	WG
35V10		KLO	33.0	37.0		MEC	OK	C	6.3	700	2200	12	40	500	200					80		RI	WG
35V11		KLO	33.0	37.0		MEC	OK	C	6.3	700	2200	30	100	500	200					130		RI	WG
8TFK9		KLO	33.0	37.0		MEC	EB	C	6.3	2300	4000	150	5000		1K						IM	IN	WG

CHARACTERISTIC LISTING

TYPE NUMBER	CODE	KIND	FREQUENCY		DUTY CYCLE	TUNING	MFR	OPERATION	E_f	I_f	MAXIMUM							TYPICAL					
			Min	Max							E_b	I_k	P_o	REFLECTOR COLLECTOR	E_{g_1}	HELIX VOLTAGE	GAIN	NF	PULL FACTOR	BAND WIDTH	MAG FIELD	CAVITY	COUPLING
			G_c	G_c	10^4				v	ma	v	ma	mw	v	v	v	db	db		Mc	gauss		
8TFK2		KLO	33.0	37.0		MEC	E8	C	6.3	2300	4000	150	10W		1K						IM	1N	WG
8FK1		KLO	33.0	37.0		FX	E8	C	6.3	2300	4000	150	15W		1K						IM	IN	WG
QK291		KLO	33.5	36.2		MEC	RA	C	6.3	580	2500	15	18	450	250							RI	WG
TK-53	S#	KLO	34.0	35.6		MEC	8E	C	6.3	600	425	40	10	400						60		RI	WG
TK-78	S#	KLO	34.0	35.6		MEC	BE	C	6.3	600	425	60	10	400						60		RI	WG
QKK834	#	KLO	34.0	35.6		MEC	RA	C	6.3	600	400	27	20	105						110		RI	WG
R5146	S	KLO	34.0	36.5		MEC	EM	C	6.3	800	2200	12	60	300						60		RI	WG
VA239	#	KLO	34.0	35.6		FX	VA						250										
SRV215	#	KLO	34.2	35.4		MEC	SP	C	6.3	600	425	35	30	500						150		RI	WG
8RK4		KLO	34.5	35.5		MEC	E8	C	6.3	1400	2500	15	30	550	20					60		R1	WG
.8RK8		KLO	34.5	35.5		MEC	E8	C	6.3	1400	2500	15	250	550						60		RI	WG
R9521		KLO	35.0	40.0		MEC	EM	C	6.3	800	2200	15	40	300						60		RI	WG
QK292		KLO	35.1	39.7		MEC	RA	C	6.3	580	3600	20	5	450	200							RI	WG
R9604		KLO	37.0	46.0		MEC	EM	C	6.3	800	2000	12	30	300						60		R1	WG
QK293		KLO	37.1	42.6		MEC	RA	C	6.3	580	3600	20	5	450	200							RI	WG
R9555		KLO	37.5	43.0		MEC	EM	C	6.3	800	2200	15	30	300						60		RI	WG
45V10		KLO	41.0	48.0		MEC	OK	C			2000	20	40									RI	WG
QK294		KLO	41.7	50.0		MEC	RA	C	6.3	580	3600	20	5	450	200							RI	WG
50V10		KLO	43.0	51.0		MEC	OK	C	6.3	700	2500	30	50	500	200					130		RI	WG
6FK1		KLO	48.0	52.0		FX	E8						1000										
6TFK2		KLO	48.0	52.0		MEC	E8						1000										
QK295		KLO	50.0	60.0		MEC	RA	C	6.3	580	3600	20	2	450	200							RI	WG
QKK863		KLO	50.0	57.0		MEC	RA	C	2.5	1450	1400	50	25	450	400							RI	WG
55V10		KLO	52.0	58.0		MEC	OK	C	6.3	700	2500	30	40	500	200					140		RI	WG
60V10		KLO	55.0	65.0		MEC	OK	C			3000	30	20									RI	WG
QKK864		KLO	56.0	65.0		MEC	RA	C	2.5	1450	1400	50	25	450	400							RI	WG
QKK865		KLO	64.0	74.0		MEC	RA	C	2.5	1450	1400	50	25	450	400							RI	WG
70V10		KLO	65.0	71.0		MEC	OK	C	6.3	700	3500	35	15	500	80							RI	WG
QKK837		KLO	67.0	70.1		MEC	RA	C	2.5	1450	1400	40	15	400	400					75		RI	WG
DX151	M	KLO	67.0	73.0		MEC		C	3.5	1800	2400	17	100	300						100		IN	WG
VA250	#	KLO	68.0	74.0		MEC	VA						20										
4FK1		KLO	68.0	80.0		FX	EB						100										
VA99	#	KLO	68.0	72.0		FX	VA						250										
4FK2		KLO	68.0	80.0		FX	EB						500										
QKK838		KLO	69.9	73.0		MEC	RA	C	2.5	1450	1400	40	15	400	400					75		RI	WG

CHARACTERISTIC LISTING

TYPE NUMBER	CODE	KIND	FREQUENCY		DUTY CYCLE	TUNING	MFR	OPERATION	E_f	I_f	MAXIMUM							TYPICAL					
			Min	Max							E_b	I_k	P_o	REFLECTOR COLLECTOR	E_{g_1}	HELIX VOLTAGE	GAIN	NF	PULL FACTOR	BAND WIDTH	MAG FIELD	CAVITY	COUPLING
			G_c	G_c	10^4				v	ma	v	ma	mw	v	v	v	db	db		Mc	gauss		
QKK866		KLO	73.0	83.0		MEC	RA	C	2.5	1450	1400	50	25	450	400							RI	WG
QKK867		KLO	82.0	H1.0		MEC	RA	C	2.5	1450	1700	60	10	450	400							RI	WG
OK673		KLO	88.0	92.0		MEC	RA	C	2.5	1450	1700	50	3	400	150					90		RI	WG
BM4119	S	MAG			2		TH	P	6.3	800	21K	25A	140K						15		6500		WG
Z305B		MAG	.2				KK		11.0	10A	8000		1K								1000		
X747	#	MAG	.4	1.2		VT	EI	C	6.3	1000	2000	20	50								IM		CO
L3500		MAG	.4	.6		MEC	LI	C	5.5	17A	3200	130	110W								IM		WG
L3456		MAG	.4	.4		MEC	LI	C	6.0	15A	4600	800	550W								IM		
L3459		MAG	.4	.4		MEC	LI	C	6.0	15A	4600	800	550W								IM		
OK508		MAG	.4	.4	18	FX	RA	P	7.0	55A	55K	97A	2M								IM		CO
7547		MAG	.4	.4	18	MEC	RA	P	6.5	55A	55K	97A	2M								IM		CO
L3501		MAG	.6	1.0		MEC	LI	C	5.5	17A	3200	130	110W								IM		WG
Z304B		MAG	.6				KK		8.0	7000	4500		300W								1300		
Z303B		MAG	.9				KK		8.5	3600	3500		150W								1800		
6787		MAG	.9	.9		FX	GE	C	12.0	56A	4100	1500	2K						2				CO
Z5405		MAG	1.0	2.3		VT	GE						1000								IM		CO
Z302B		MAG	1.0				KK		8.5	3600	3000		60W								2000		
L3502		MAG	1.0	1.5		MEC	LI	C	5.5	17A	3200	130	110W								IM		WG
L3465		MAG	1.0	1.5		MEC	LI	C	6.0	15A	4300	800	850W								IM		
5J26	M	MAG	1.2	1.4	25	MEC	WE	P	23.5	2200	34K	55A	550K						5	1	1400		CO
4J30	M	MAG	1.2	1.2	9	FX	WE	P	23.5	2200	27K	46A	600K										
RK6517	S	MAG	1.2	1.4	13	MEC	RA	P	2.8	75A	70K	60A	1M						5		IM		WG
OK264	S*	MAG	1.2	1.4	12	MEC	RA	P	3.0	85A	75K	100A	2M								IM		
OK470	S	MAG	1.2	1.4	12	MEC	RA	P	3.0	85A	75K	100A	2M								IM		
7484	S	MAG	1.2	1.4	10	MEC	RA	P	2.7	75A	60K	90A	2M								IM		WG
7528	S	MAG	1.2	1.4	12	MEC	RA	P	3.7	90A	60K	90A	2M								IM		WG
M565		MAG	1.2	1.4	25	FX	EE	P	48.0	14A	48K	240A	5M								800		WG
OK665	S	MAG	1.2	1.3	18	FX	RA	P	15.0	150A	72K	150A	5M								IM		WG
M554		MAG	1.3	1.4	15	FX	EE	P	20.0	14A	39K	150A	3M						4		925		WG
OK666	S	MAG	1.3	1.4	18	FX	RA	P	15.0	150A	72K	150A	5M								IM		WG
WL6285		MAG	1.3	1.3	18	FX	WH	P	15.0	285A	70K	350A	10M						4	2	1500		WG
Z301B		MAG	1.5				KK		3.0	3000	2500		20W								2500		
L3503		MAG	1.5	2.4		MEC	LI	C	5.5	17A	3200	130	110W								IM		WG
L3464		MAG	1.5	2.4		MEC	LI	C	6.0	15A	4300	800	600W								IM		
CV120A		MAG	S		4		TH	P	6.0	7000	27K	40A	400K								1350		CO

CHARACTERISTIC LISTING

TYPE NUMBER	CODE	KIND	FREQUENCY		DUTY CYCLE	TUNING	MFR	OPERATION	E_f	I_f	MAXIMUM							TYPICAL					
			Min	Max							E_b	I_k	P_o	REFLECTOR COLLECTOR	E_{g_1}	HELIX VOLTAGE	GAIN	NF	PULL FACTOR	BAND WIDTH	MAG FIELD	CAVITY	COUPLING
			G_c	G_c	10^4				v	ma	v	ma	mw	v	v	v	db	db		Mc	$gauss$		
CV120B		MAG	S		4		TH	P	6.0	7000	27K	40A	400K								1350		CO
CV120C		MAG	S		4		TH	P	6.0	7000	27K	40A	400K								1350		CO
CV2117	S	MAG	S		15		TH	P	8.5	9000	38K	70A	1M						7		1400		WG
CV2118	S	MAG	S		15		TH	P	8.5	9000	38K	70A	1M						7		1400		WG
CV2119	S	MAG	S		15		TH	P	8.5	9000	38K	70A	1M						7		1400		WG
CV2120	S	MAG	S		15		TH	P	8.5	9000	38K	70A	1M						7		1400		WG
CV2121	S	MAG	S		15		TH	P	8.5	9000	38K	70A	1M						7		1400		WG
CV2122	S	MAG	S		15		TH	P	8.5	9000	38K	70A	1M						7		1400		WG
CV2123	S	MAG	S		15		TH	P	8.5	9000	38K	70A	1M						7		1400		WG
CV2319	S	MAG	S		15		TH	P	8.5	9000	38K	70A	1M						7		1375		WG
CV2168	S	MAG	S		15		TH	P	8.5	9000	48K	90A	2M						7		1600		WG
CV2169	S	MAG	S		15		TH	P	8.5	9000	48K	90A	2M						7		1600		WG
CV2170	S	MAG	S		15		TH	P	8.5	9000	48K	90A	2M						7		1600		WG
CV2320	S	MAG	S		15		TH	P	8.5	9000	46K	110A	2M						7		1550		WG
Z3008		MAG	2.0				KK		2.5	3000	2000		10W								3500		
7398	#	MAG	2.2	3.8		VT	GE	C	2.5	3000	2000	30	2000								1M		CO
Z5428	#	MAG	2.2	2.3		VT	GE						10W										
5609A	S	MAG	2.4	2.8		FX	RA	C	6.3	1800	1450	135	70W						7		1M		CO
5609	X	MAG	2.4	2.8		FX	RA	C	6.3	3800	1450	135	80W						6		1M		CO
L3504		MAG	2.4	3.6		MEC	LI	C	5.5	17A	3200	130	110W								1M		WG
JP2-0.2		MAG	2.4	2.5		FX	MU	C	5.3	3400	1600	220	200W								1M		CO
MG8		MAG	2.4	2.4		FX	TE	C	4.5	2500	1500	340	200W								1500		CO
7090	M	MAG	2.4	2.5		FX	RE	C	5.5	3400	1700	200	200W								1M		CO
JN2-0.2		MAG	2.4	2.4		FX	MU	C	5.3	3300	1600	220	290W								1M		CO
L3460		MAG	2.4	3.6		MEC	LI	C	6.0	15A	4500	800	850W								1M		
MG2000		MAG	2.4	2.4		FX	TE	C	9.0	5000	2400	1350	1K								1100		CO
QK312		MAG	2.4	2.5		FX	RA	C	8.5	32A	7000	2500	2K								1M		
7091	M	MAG	2.4	2.5		FX	RE	C	7.0	35A	4500	800	2K								1M		CO
7292	M	MAG	2.4	2.4		FX	AM	C	5.0	32A	4500	2100	2K										CO
JN2-2.5A		MAG	2.4	2.4		FX	MU	C	5.0	32A	4700	900	3K								1M		CO
JN2-2.5W		MAG	2.4	2.4		FX	MU	C	5.0	32A	4700	900	3K								IM		CO
24M10		MAG	2.4				OK	C			13K	15A	50K										
5607	*	MAG	2.5	3.6		MEC	L1	C	5.5	17A	6000	1000	1K						25		3300		WG
SP232F		MAG	2.6				KK		7.0	4000	1200		8000								1200		
2J68		MAG	2.7	2.8	20	MEC	RA	P	6.3	1500	20K	25A	150K								1700		

TYPE NUMBER	CODE	KIND	FREQUENCY		DUTY CYCLE	TUNING	MFR	OPERATION	E_f	I_f	MAXIMUM							TYPICAL					
			Min	Max							E_b	I_k	P_o	REFLECTOR COLLECTOR	E_{g_1}	HELIX VOLTAGE	GAIN	NF	PULL FACTOR	BAND WIDTH	MAG FIELD	CAVITY	COUPLING
			G_c	G_c	10^4				v	ma	v	ma	mw	v	v	v	db	db		Mc	gauss		
2J69		MAG	2.7	2.8	20	MEC	RA	P	6.3	1500	20K	25A	150K								1700		
2J33	X	MAG	2.7	2.8	20	FX	RA	P	6.3	1500	22K	30A	285K						15		1900		CO
2J34	X	MAG	2.7	2.7	20	FX	RA	P	6.3	1500	22K	30A	285K						15		1900		CO
4J34	X	MAG	2.7	2.8	10	FX	RA	P	16.0	3100	30K	70A	685K						15		2700		CO
4J35	X	MAG	2.7	2.7	10	FX	RA	P	16.0	3100	30K	70A	685K						15		2700		CO
5586	X*	MAG	2.7	2.9	5	MEC	RA	P	16.0	3100	30K	70A	800K								2700		CO
M525	S	MAG	2.7	2.9	12	FX	EE	P	8.5	9000	36K	80A	1M						7		1800		WG
7529	S	MAG	2.7	2.8		MEC	RA	P	8.2	78A	62K	115A	3M								IM		WG
QK327		MAG	2.7	2.8	7	MEC	RA	P	8.2	78A	61K	115A	4M										
2J66		MAG	2.8	2.9	20	MEC	RA	P	6.3	1500	20K	25A	150K								1700		
2J67		MAG	2.8	2.9	20	MEC	RA	P	6.3	1500	20K	25A	150K								1700		
2J31	X	MAG	2.8	2.9	20	FX	RA	P	6.3	1500	22K	30A	285K						15		1900		CO
2J32	X	MAG	2.8	2.8	20	FX	RA	P	6.3	1500	22K	30A	285K						15		1900		CO
4J53	X	MAG	2.8	2.8	10	FX	RA	P	16.0	3100	30K	70A	500K								2150		CO
4J32	X	MAG	2.8	2.9	10	FX	RA	P	16.0	3100	30K	70A	685K						15		2700		CO
4J33	X	MAG	2.8	2.8	10	FX	RA	P	16.0	3100	30K	70A	685K						15		2700		CO
M566		MAG	2.8	2.9	15	FX	EE	P	12.0	15A	42K	176A	2M						7	1	1640		WG
M569		MAG	2.8	3.0	15	FX	EE	P	12.0	15A	43K	170A	2M						7		1580		WG
M573		MAG	2.8	3.0	15	FX	EE	P	12.0	15A	41K	170A	2M						7		1520		WG
6406A	S	MAG	2.8	2.9	6	FX	RA	P	8.3	85A	56K	95A	2M						10		IM		WG
7182	X#	MAG	2.8	2.9	15	FX	MC	P	12.0	14A	33K	185A	2M						5		1400		WG
QKH880	S	MAG	2.8	2.9		MEC	RA	P	8.0	79A	70K	130A	4M								IM		WG
QKH883	S	MAG	2.8	2.9		FX	RA	P	8.0	79A	70K	130A	4M								IM		WG
6410A	X	MAG	2.8	2.9	10	FX		P	8.3	85A	76K	135A	5M						10		IM		WG
MCV101A1		MAG	2.9	3.0	1K		SF	P	6.3	1500	2000	2000	300W								1700		
2J30	X	MAG	2.9	2.9	20	FX	RA	P	6.3	1500	22K	30A	285K						15		1900		CO
MC102		MAG	2.9	3.0	5	FX	SF	P	5.3	2600	30K	40A	450K								2400		
MC103		MAG	2.9	2.9	5	FX	SF	P	5.3	2600	30K	40A	450K								2400		
55100-04		MAG	2.9	3.0	12	FX	VV	P	5.0	2600	30K	35A	475K								2300		CO
M501	S	MAG	2.9	3.0	10	FX	EE	P	5.0	2600	27K	40A	570K						35		2300		CO
M501A	S	MAG	2.9	3.0	10	FX	EE	P	5.0	2600	27K	40A	570K						35		2300		CO
M501B	S	MAG	2.9	3.0	10	FX	EE	P	5.0	2600	27K	40A	570K						35		2300		CO
4J31	X	MAG	2.9	2.9	10	FX	RA	P	16.0	3100	30K	70A	685K						15		2700		CO
5657	X*	MAG	2.9	3.1	5	MEC	RA	P	16.0	3100	32K	70A	700K								2700		CO
MC1053		MAG	2.9	3.1	10	FX	SF	P	14.0	8000	38K	70A	1M								IM		

CHARACTERISTIC LISTING

TYPE NUMBER	CODE	KIND	FREQUENCY		DUTY CYCLE	TUNING	MFR	OPERATION	E_f	I_f	MAXIMUM							TYPICAL					
			Min	Max							E_b	I_k	P_o	REFLECTOR COLLECTOR	E_{g_1}	HELIX VOLTAGE	GAIN	NF	PULL FACTOR	BAND WIDTH	MAG FIELD	CAVITY	COUPLING
			G_c	G_c	10^4				v	ma	v	ma	mw	v	v	v	db	db		Mc	gauss		
TH1658A		MAG	2.9	2.9	10	FX	CF	P	16.0	3100	32K	70A	1M						15		2750		CO
QKH899		MAG	2.9	2.9	6	FX	RA	P	8.0	79A	52K	85A	2M								IM		WG
MC1054		MAG	2.9	3.1	10	FX	SF	P	14.0	44A	45K	110A	2M								IM		
6518	S	MAG	2.9	2.9	7	FX	RA	P	13.0	44A	48K	92A	2M						16		IM		CO
QKH898		MAG	2.9	2.9	8	FX	RA	P	8.0	79A	70K	130A	4M								IM		WG
MCV101A2		MAG	3.0	3.1	1K		SF	P	6.3	1500	2000	2000	300W								1700		
2J70		MAG	3.0	3.1	20	FX	RA	P	6.3	1400	7500	15A	25K						13		IM		CO
M561		MAG	3.0	3.1	20	FX	EE	P	10.0	1100	18K	25A	80K						6		1800		CO
CV160	S	MAG	3.0	3.1	10	FX	GC	P	6.0	1250	22K	22A	200K						7		2050		CO
M528		MAG	3.0	3.1	10	FX	EE	P	6.0	1250	22K	25A	220K						7		2050		CO
CV76		MAG	3.0	3.1	10	FX	GC	P	5.0	2500	27K	35A	450K								2300		WG
MC99		MAG	3.0	3.1	5	FX	SF	P	5.3	2600	30K	40A	450K								2400		
MC100		MAG	3.0	3.0	5	FX	SF	P	5.3	2600	30K	40A	450K								2400		
MC101		MAG	3.0	3.0	5	FX	SF	P	5.3	2600	30K	40A	450K								2400		
CV1479/82	S	MAG	3.0	3.1	10	FX	GC	P	5.0	2500	27K	35A	450K								2300		WG
55100-01		MAG	3.0	3.1	12	FX	VV	P	5.0	2600	30K	35A	475K								2300		CO
55100-02		MAG	3.0	3.0	12	FX	VV	P	5.0	2600	30K	35A	475K								2300		CO
55100-03		MAG	3.0	3.0	12	FX	VV	P	5.0	2600	30K	35A	475K								2300		CO
CV1495	X	MAG	3.0	3.1	10	FX		P	6.0	1250	24K	22A	500K						7		2050		CO
CV1496	X	MAG	3.0	3.1	10	FX		P	6.0	1250	24K	22A	500K						7		2050		CO
CV1497	X	MAG	3.0	3.1	10	FX		P	6.0	1250	24K	22A	500K						7		2050		CO
CV1498	X	MAG	3.0	3.1	10	FX		P	6.0	1250	24K	22A	500K						7		2050		CO
CV1499	X	MAG	3.0	3.1	10	FX		P	6.0	1250	24K	22A	500K						7		2050		CO
CV1500	X	MAG	3.0	3.1	10	FX		P	6.0	1250	24K	22A	500K						7		2050		CO
4J43	X	MAG	3.0	3.0	10	FX	RA	P	16.0	3100	30K	70A	900K								2700		CO
4J44	X	MAG	3.0	3.0	10	FX	RA	P	16.0	3100	30K	70A	900K								2700		CO
THF1007		MAG	3.0	3.0	10	FX	CF	P	16.0	3100	32K	70A	1M						15		2750		CO
M570		MAG	3.0	3.1	15	FX	EE	P	12.0	15A	43K	170A	2M						7		1580		WG
M574		MAG	3.0	3.1	15	FX	EE	P	12.0	15A	44K	155A	2M						7		1580		WG
MCV101B1		MAG	3.1	3.2	1K		SF	P	6.3	1500	2000	2000	300W								1700		
MC96		MAG	3.1	3.1	5	FX	SF	P	5.3	2600	30K	40A	450K								2400		
MC97		MAG	3.1	3.1	5	FX	SF	P	5.3	2600	30K	40A	450K								2400		
MC98		MAG	3.1	3.1	5	FX	SF	P	5.3	2600	30K	40A	450K								2400		
THF1001		MAG	3.1	3.3	10	FX	CF	P	16.0	3100	32K	70A	800K						15		2700		CO
TH1658B		MAG	3.1	3.1	10	FX	CF	P	16.0	3100	32K	70A	1M						15		2750		CO

CHARACTERISTIC LISTING

TYPE NUMBER	CODE	KIND	FREQUENCY		DUTY CYCLE	TUNING	MFR	OPERATION	E_f	I_f	MAXIMUM							TYPICAL					
			Min	Max							E_b	I_k	P_o	REFLECTOR COLLECTOR	E_{g_1}	HELIX VOLTAGE	GAIN	NF	PULL FACTOR	BAND WIDTH	MAG FIELD	CAVITY	COUPLING
			G_c	G_c	10^4				v	ma	v	ma	mw	v	v	v	db	db		Mc	$gauss$		
5795		MAG	3.1	3.5	22	MEC	WE	P	107.0	3650	50K	50A	1M								IM		WG
TH1657A		MAG	3.1	3.3	10	FX	CF	P	16.0	3100	32K	70A	2M								2700		CO
MCV101B2		MAG	3.2	3.3	1K		SF	P	6.3	1500	2000	2000	300W								1700		
2J71		MAG	3.2	3.2	20	FX	RA	P	6.3	1250	5000	5000	6K								IM		CO
M507	S	MAG	3.2	3.4	10	FX	EE	P	5.0	2600	27K	40A	425K								2100		CO
MC92		MAG	3.2	3.3	5	FX	SF	P	5.3	2600	30K	40A	450K								2400		
MC93		MAG	3.2	3.2	5	FX	SF	P	5.3	2600	30K	40A	450K								2400		
MC94		MAG	3.2	3.2	5	FX	SF	P	5.3	2600	30K	40A	450K								2400		
MC95		MAG	3.2	3.2	5	FX	SF	P	5.3	2600	30K	40A	450K								2400		
CV1475/78	S	MAG	3.2	3.4	10	FX	GC	P	5.0	2600	26K	40A	450K								2100		WG
MCV101C1		MAG	3.3	3.4	1K		SF	P	6.3	1500	2000	2000	300W								1700		
33M10		MAG	3.3				OK	C			13K	18A	40K										
2J52		MAG	3.3	3.4	20	MEC	RA	P	6.3	1500	15K	15A	70K								1400		
CV192		MAG	3.3	3.3	8	FX	GC	P	6.0	1250	22K	23A	225K								1880		WG
MC89		MAG	3.3	3.4	5	FX	SF	P	5.3	2600	30K	40A	450K								2400		
MC90		MAG	3.3	3.3	5	FX	SF	P	5.3	2600	30K	40A	450K								2400		
MC91		MAG	3.3	3.3	5	FX	SF	P	5.3	2600	30K	40A	450K								2400		
MCV101C2		MAG	3.4	3.5	1K		SF	P	6.3	1500	2000	2000	300W								1700		
R9575		MAG	3.4	3.5			EM	P	6.3	4000	16K	25A	35K						80		IM		WG
M519	S	MAG	3.4	3.6	10	FX	EE	P	5.0	2600	27K	40A	425K								2300		CO
MC86		MAG	3.4	3.4	5	FX	SF	P	5.3	2600	30K	40A	450K								2400		
MC87		MAG	3.4	3.4	5	FX	SF	P	5.3	2600	30K	40A	450K								2400		
MC88		MAG	3.4	3.4	5	FX	SF	P	5.3	2600	30K	40A	450K								2400		
55085-04		MAG	3.4	3.5	2	FX	VV	P	5.0	2900	30K	40A	450K								2500		CO
6589	M	MAG	3.4	3.5	10	MEC		P	16.0	3400	30K	50A	500K						10	2	2700		WG
RK6695		MAG	3.4	3.6	10	MEC	RA	P	16.0	3100	31K	60A	650K								2600		CO
6402		MAG	3.4	3.6	16	MEC	RA	P	8.3	43A	57K	55A	700K								IM		WG
4J40		MAG	3.4	3.5	10	FX	RA	P	16.0	3100	30K	70A	850K						10		2500		WG
4J41		MAG	3.4	3.4	10	FX	RA	P	16.0	3100	30K	70A	850K						10		2500		WG
RK6403		MAG	3.4	3.6	14	MEC	RA	P	8.3	43A	54K	80A	2M										WG
MCV85D1		MAG	3.5	3.6		MEC	SF	C	6.3	2600	1400	300	150W								IM		
MCV101D1		MAG	3.5	3.6	1K		SF	P	6.3	1500	2000	2000	300W								1700		
MCV850D1		MAG	3.5	3.6	5K	MEC	SF	P	6.3		3000	1000	500W								IM		
35M10		MAG	3.5				OK	C			13K	18A	40K										
MC83		MAG	3.5	3.5	5	FX	SF	P	5.3	2600	30K	40A	450K								2400		

CHARACTERISTIC LISTING

TYPE NUMBER	CODE	KIND	FREQUENCY		DUTY CYCLE	TUNING	MFR	OPERATION	E_f	I_f	MAXIMUM							TYPICAL					
			Min	Max							E_b	I_k	P_o	REFLECTOR COLLECTOR	E_{g_1}	HELIX VOLTAGE	GAIN	NF	PULL FACTOR	BAND WIDTH	MAG FIELD	CAVITY	COUPLING
			G_c	G_c	10^4				v	ma	v	ma	mw	v	v	v	db	db		Mc	gauss		
MC84		MAG	3.5	3.5	5	FX	SF	P	5.3	2600	30K	40A	450K								2400		
MC85		MAG	3.5	3.5	5	FX	SF	P	5.3	2600	30K	40A	450K								2400		
55085-02		MAG	3.5	3.6	2	FX	VV	P	5.0	2900	30K	40A	450K								2500		CO
55085-03		MAG	3.5	3.5	2	FX	VV	P	5.0	2900	30K	40A	450K								2500		CO
4J39		MAG	3.5	3.6	10	FX	RA	P	16.0	3100	30K	70A	850K						10		2500		WG
L3505		MAG	3.6	5.0		MEC	LI	C	5.5	17A	3200	130	110W								IM		WG
MCV85D2		MAG	3.6	3.7		MEC	SF	C	6.3	2600	1400	300	150W								IM		
MCV101D2		MAG	3.6	3.7	1K		SF	P	6.3	1500	2000	2000	300W								1700		
MCV850D2		MAG	3.6	3.7	5K	MEC	SF	P	6.3		3000	1000	500W								IM		
L3461		MAG	3.6	5.0		MEC	LI	C	6.0	15A	4300	800	600W								IM		
55085-01		MAG	3.6	3.6	2	FX	VV	P	5.0	2900	30K	40A	450K								2500		CO
4J36		MAG	3.6	3.7	10	FX	RA	P	16.0	3100	30K	70A	850K						10		2500		WG
4J37		MAG	3.6	3.6	10	FX	RA	P	16.0	3100	30K	70A	850K						10		2500		WG
4J38		MAG	3.6	3.6	10	FX	RA	P	16.0	3100	30K	70A	850K						10		2500		WG
WX4529	#	MAG	4.2	4.4		FX	WH	C	6.3	600	250		1000								IM		CO
7796		MAG	4.2	4.4		VT	WH	C	6.3	600	350	30	1500								IM		CO
7794	#	MAG	4.2	4.4		MEC	WH	C	6.3	600	500	100	5000						4		IM		CO
WX4160	#	MAG	4.2	4.4		MEC	WH	C	6.3	600	440	30	4500								IM		
WX4160	#	MAG	4.2	4.4	*2K	MEC	WH	P	6.3	600	500	100	10W								IM		
QK393		MAG	4.3	4.3		FX	RA	C	6.3	600	300	30	1000								IM		CO
6177	M	MAG	4.3	4.3		FX	RA	C	6.3	600	330	30	1000								IM		CO
WX4103		MAG	4.3	4.4		MEC	WH	C	6.3	600	350	25	1500								IM		CO
WX4163		MAG	4.3	4.3		FX	WH	C	6.3	600	350	25	1500								IM		CO
7795	#	MAG	4.3	4.3		FX	WH	C	6.3	600	425	30	10W								IM		CO
L3506		MAG	5.0	6.2		MEC	LI	C	5.5	17A	3200	130	110W								IM		WG
L3467		MAG	5.0	6.2		MEC	LI	C	6.0	15A	4800	800	600W								IM		
50M10		MAG	5.0				OK	C			12K	16A	20K										
QK632		MAG	5.2	5.3	1	FX	RA	P	5.0	19A	36K	60A	1M								IM		WG
BL231		MAG	5.3	6.0			BL		5.0	500	1400	1000	200W										CO
5M36A		MAG	5.3	5.3	7	FX	TO	P	6.3	3250	23K	40A	320K								3000		WG
BL209		MAG	5.4	5.9	20	MEC	BL	P	5.0	500	1500	1300	200								IM		CO
MCM-11		MAG	5.4	5.9	20	MEC	ME	P			1300	800	100W										
BL206		MAG	5.4	5.9	20	MEC	BL	P	5.0	500	1500	1200	100W						12	3	IM		CO
BL212		MAG	5.4	5.9	20	MEC	BL	P	5.0	500	1500	1200	100W						12	3	IM		CO
BL243		MAG	5.4	5.9			BL		5.0	500	1400	1000	200W										CO

CHARACTERISTIC LISTING

TYPE NUMBER	CODE	KIND	FREQUENCY		DUTY CYCLE	TUNING	MFR	OPERATION	E_f	I_f	MAXIMUM							TYPICAL					
			Min	Max							E_b	I_k	P_o	REFLECTOR COLLECTOR	E_{g_1}	HELIX VOLTAGE	GAIN	NF	PULL FACTOR	BAND WIDTH	MAG FIELD	CAVITY	COUPLING
			G_c	G_c	10^4				*v*	*ma*	*v*	*ma*	*mw*	*v*	*v*	*v*	*db*	*db*		*Mc*	*gauss*		
MCM-12		MAG	5.4	5.9	20	MEC	ME	P			2000	1100	400W										
MCM-14		MAG	5.4	5.9	20	MEC	ME	P			2200	1200	400W										
BL215		MAG	5.4	5.9	20	MEC	BL	P	5.0	750	2500	1500	400W								IM		CO
BL223		MAG	5.4	5.9			BL		5.0	700	1900	1100	400W										CO
BL223A	#	MAG	5.4	5.9		MEC	BL						400W								IM	CO	
BL242		MAG	5.4	5.9			BL		5.0	700	1900	1100	400W										CO
QK735	#	MAG	5.4	5.9	30	MEC	RA	P	5.0	1000	2300	1500	600W								IM		CO
MCM-13		MAG	5.4	5.9	20	MEC	ME	P			2800	1900	1K										
BL230		MAG	5.4	5.9			BL		5.0	700	2800	1900	1K										CO
7444	S#	MAG	5.4	5.9		MEC	BL	C	5.5	800	2800	1900	1K						15		IM		CO
RK7578	#	MAG	5.4	5.9	20	MEC	RA	P	5.0	1750	2800	2000	1K								IM		CO
QK821	#	MAG	5.4	5.9	20	MEC	RA	P	5.0	1800	3700	3000	2K								IM		CO
MA220		MAG	5.4	5.9	3	MEC	MA	P			10K	12A	40K										
QK456		MAG	5.4	5.4	10	FX	RA	P	6.3	1500	16K	20A	75K								IM		
6521	#	MAG	5.4	5.4	10	FX	RC	P	10.0	3200	16K	16A	85K						10	2	IM		WG
RK7040		MAG	5.4	5.4	10	FX	RA	P	6.3	1650	14K	14A	85K								IM		WG
QK662		MAG	5.4	5.8	10	MEC	RA	P	5.0	5000	24K	24A	250K										WG
THF1050	S	MAG	5.4	5.8	12	FX	CF	P	9.5	5500	28K	30A	250K						15		IM		WG
6344	S	MAG	5.4	5.8	10	MEC	RA	P	11.0	12A	24K	30A	260K						15		IM		WG
RK7156		MAG	5.4	5.8	10	MEC	RA	P	5.0	5400	24K	24A	300K								IM		WG
QK682		MAG	5.4	5.9	20	MEC	RA	P	5.0	1500	2750	2000	800K										
TH1501		MAG	5.4	5.5	10	MEC	CF	P	9.5	5500	30K	32A	900K						15		IM		WG
QK457		MAG	5.5	5.8	20	MEC	RA	P	5.0	630	1500	900	200W								IM		
RK7417		MAG	5.5	5.6	3	FX	RA	P	6.3	1600	7500	4000	9K								IM		WG
MCM-10		MAG	5.5	5.6	3	FX	ME	P			7500	4000	10K										
JPT6-01		MAG	5.8	7.3		MEC	MU	C	6.3	1300	950	50	10W						20		IM		WG
MG20		MAG	5.8	5.8		FX	TE	C	3.5	3000	1100	120	40W								2400		CO
L3468		MAG	6.2	7.3		MEC	LI	C	6.0	15A	4800	800	500W								IM		
4J59	M#	MAG	6.3	6.4	10	FX	RA	P	12.6	3750	25K	35A	250K						15		IM		WG
4J58	M#	MAG	6.4	6.5	10	FX	RA	P	12.6	3750	25K	35A	250K						15		IM		WG
4J57	M#	MAG	6.5	6.6	10	FX	RA	P	12.6	3750	25K	35A	250K						15		IM		WG
4J56	#	MAG	6.6	6.7	10	FX	RA	P	12.6	3750	25K	35A	250K						15		IM		WG
4J55	#	MAG	6.7	6.8	10	FX	RA	P	12.6	3750	25K	35A	250K						15		IM		WG
4J54	#	MAG	6.8	6.9	10	FX	RA	P	12.6	3750	25K	35A	250K						15		IM		WG
MA208	#	MAG	7.1	8.5	200	MEC	MA	P	6.3	600	900	200	20W						15				WG

CHARACTERISTIC LISTING

TYPE NUMBER	CODE	KIND	FREQUENCY		DUTY CYCLE	TUNING	MFR	OPERATION	E_f	I_f	MAXIMUM							TYPICAL						
			Min	Max							E_b	I_k	P_o	REFLECTOR COLLECTOR	E_{g_1}	HELIX VOLTAGE	GAIN	NF	PULL FACTOR	BAND WIDTH	MAG FIELD	CAVITY	COUPLING
			G_c	G_c	10^4				v	ma	v	ma	mw	v	v	v	db	db		Mc	$gauss$		
L3507		MAG	7.2	7.3		MEC	LI	C	5.5	17A	3200	130	110W								1M		WG
L3508		MAG	7.3	8.8		MEC	LI	C	5.5	17A	3200	130	110W								1M		WG
L3462		MAG	7.3	8.8		MEC	LI	C	6.0	15A	4800	800	400W								1M		
MA217	#	MAG	7.5	8.5		MEC	MA	C	6.3	500	500	15	1000						15				WG
MA221		MAG	7.5	8.8		FX	MA	C			420	15	1000										WG
MA217	#	MAG	7.5	8.5	1K	MEC	MA	P	6.3	500	500	75	5000						15				WG
MA221		MAG	7.5	8.8	1K	FX	MA	P			500	150	10W										WG
JPG8-01B	S	MAG	8.0	8.6		MEC	MU	C	6.3	1100	920	50	10W						20		1M		WG
JPT8-01B	S	MAG	8.0	8.6		MEC	MU	C	6.3	1100	920	50	10W						20		1M		WG
CV2167	S	MAG	X		7		TH	P	6.3	800	14K	9000	30K						15		5000		WG
BM4073	S	MAG	X		4		TH	P	6.3	800	14K		40K						15		4850		WG
CV209		MAG	X		12		TH	P	6.3	800	14K	12A	45K								2670		WG
CV2313	S	MAG	X		9		TH	P	6.3	800	16K	12A	50K						15		5500		WG
CV2333	S	MAG	X		7		TH	P	6.3	800	14K	12A	50K						15		5100		WG
CV2334	S	MAG	X		7		TH	P	6.3	800	14K	12A	50K						15		5100		WG
CV2335	S	MAG	X		7		TH	P	6.3	800	14K	12A	50K						15		5100		WG
CV2336	S	MAG	X		7		TH	P	6.3	800	14K	12A	50K						15		5100		WG
CV2337	S	MAG	X		7		TH	P	6.3	800	14K	12A	50K						15		5100		WG
CV251		MAG	X		2		TH	P	6.3	800	20K	30A	150K								3250		WG
BL228		MAG	8.3	8.7			BL		5.0	500	1300	900	90W										CO
Z5429		MAG	8.5	11.0		VT	GE	C	2.5	3000	2000	30	1										
MA219		MAG	8.5	9.6		MEC	MA	C			430	15	1000										
MA219		MAG	8.5	9.6	1K	MEC	MA	P			520	350	20W										
MXM-13		MAG	8.5	8.9	20	MEC	ME	P			1325	900	100W										
BLM-014	#	MAG	8.5	9.0	20	MEC	BL	P	5.0	500	1500	1200	150W						15		1M		CO
L3103	S	MAG	8.5	9.6	20	MEC	L1	P	12.6	2300	12K	10A	30K						15	2	1M		WG
2J51	X	MAG	8.5	9.6	11	MEC	WE	P	6.3	1000	16K	16A	50K								1M		WG
7256	S	MAG	8.5	9.6	10	MEC	RA	P	6.3	1000	16K	16A	55K								1M		WG
2J51A	X#	MAG	8.5	9.6	12	MEC		P	6.3	1000	16K	16A	60K							18	1M		WG
JPT9-60	#	MAG	8.5	9.6	11	MEC	MU	P	6.3	1000	16K	16A	63K						10		1M		WG
L3106	S#	MAG	8.5	9.6	10	MEC	L1	P	12.6	2300	15K	15A	65K						15	2	1M		WG
L3106A	S#	MAG	8.5	9.6	10	MEC	L1	P	12.6	2300	15K	15A	65K						15	2	1M		WG
THF1025		MAG	8.5	9.6	20	FX	CF	P	12.6	2100	17K	20A	70K						15		1M		WG
LT6543	S#	MAG	8.5	9.6	10	MEC	L1	P	12.6	2300	15K	15A	80K						15	2	1M		WG
LT6543A	S#	MAG	8.5	9.6	10		L1	P	12.6	2300	15K	15A	80K						15	2	1M		WG

CHARACTERISTIC LISTING

TYPE NUMBER	CODE	KIND	FREQUENCY		DUTY CYCLE	TUNING	MFR	OPERATION	E_f	I_f	MAXIMUM							TYPICAL					
			Min	Max							E_b	I_k	P_o	REFLECTOR COLLECTOR	E_{g_1}	HELIX VOLTAGE	GAIN	NF	PULL FACTOR	BAND WIDTH	MAG FIELD	CAVITY	COUPLING
			G_c	G_c	10^4				v	ma	v	ma	mw	v	v	v	db	db		Mc	gauss		
A1135		MAG	8.5	9.6	20	MEC	RC	P			23K	28A	190K								IM		WG
M4163		MAG	8.5	9.6	13	MEC	SY	P	13.8	3750	23K	28A	190K						13		IM		WG
THF1026		MAG	8.5	9.6	10	FX	CF	P	13.8	3400	24K	25A	200K						15		IM		WG
L3312		MAG	8.5	9.6	10		LI	P					200K										
M4164		MAG	8.5	9.6	13	MEC	SY	P	13.8	3750	23K	28A	200K						15		IM		WG
M4193		MAG	8.5	9.6	11	MEC	SY	P	13.8	3750	23K	28A	200K						15		IM		WG
7008	X#	MAG	8.5	9.6	11	MEC	RC	P	13.8	3150	23K	28A	220K						15	5	IM		WG
7692A	#	MAG	8.5	9.6	13	MEC	SY	P	13.8	3200	22K	21A	220K						12		IM		WG
DX125	M	MAG	8.5	9.6	10	MEC		P	20.0	4000	30K	25A	225K						16				WG
7110	X#	MAG	8.5	9.6	11	MEC	RC	P	13.8	3150	23K	28A	230K						15	5	IM		WG
7111	X#	MAG	8.5	9.6	11	MEC	RC	P	13.8	3150	23K	28A	230K						15	5	IM		WG
7112	X#	MAG	8.5	9.6	11	MEC	RC	P	13.8	3150	23K	28A	230K						15	5	IM		WG
QKH1000	S#	MAG	8.5	9.6	13	MEC	RA	P	9.0	14A	28K	25A	240K							2	IM		WG
QKH1000A	S#	MAG	8.5	9.6	13	MEC	RA	P	9.0	14A	28K	25A	240K							2	IM		WG
QKH1001	S#	MAG	8.5	9.6	13	HY	RA	P	9.0	14A	28K	25A	240K							2	IM		WG
QKH1001A	S#	MAG	8.5	9.6	13	HY	RA	P	9.0	14A	28K	25A	240K							2	IM		WG
6249A	X#	MAG	8.5	9.6	13	MEC		P	9.0	14A	28K	25A	240K							2	IM		WG
M549	S	MAG	8.5	8.7	10	FX	EE	P	13.8	3250	22K	28A	248K						15		IM		WG
JP9-250E	#	MAG	8.5	8.7	10	FX	MU	P	13.8	3250	23K	27A	250K						14		IM		WG
A1127		MAG	8.5	9.6	10	MEC	RC	P			28K	28A	250K								IM		
5780	M#	MAG	8.5	9.6	10	MEC	BT	P	14.5	3400	40K	36A	250K						16		IM		WG
6249B	#	MAG	8.5	9.6	10	MEC	WH	P	9.0	14A	28K	25A	250K								IM		WG
7541	#	MAG	8.5	9.6	10	MEC	WH	P	13.8	3200	22K	28A	250K								IM		WG
7535	S	MAG	8.5	9.6	15	MEC	WE	P	20.0	4000	42K	45A	550K						13		IM		WG
JPG8-01	S	MAG	8.6	9.2		MEC	MU	C	6.3	1100	920	50	10W						20		IM		WG
JPT8-01	S	MAG	8.6	9.2		MEC	MU	C	6.3	1100	920	50	10W						20		IM		WG
L3602	#	MAG	8.6	8.6	270	FX	LI	P	6.3	500	550	300	30W								IM		WG
L3211		MAG	8.6	9.5	10	HY	LI	P	12.6	2300	15K	15A	65K						15	2	IM		WG
L3305		MAG	8.6	9.5	10	HY	LI	P					65K								IM		WG
L3313		MAG	8.6	9.5	10	HY	LI	P					200K										
BLM-059	#	MAG	8.6	9.6		MEC	BL	P					250K								IM		
BL227		MAG	8.7	9.1			BL		5.0	500	1300	900	90W										CO
M509	S	MAG	8.7	8.8	25	FX	EE	P	6.3	500	5500	5500	10K						15		IM		WG
M539	S	MAG	8.7	8.8	10	FX	EE	P	13.8	3250	22K	28A	248K						15		IM		WG
JP9-250D	#	MAG	8.7	8.8	10	FX	MU	P	13.8	3250	23K	27A	250K						14		IM		WG

CHARACTERISTIC LISTING

TYPE NUMBER	CODE	KIND	FREQUENCY		DUTY CYCLE	TUNING	MFR	OPERATION	E_f	I_f	MAXIMUM							TYPICAL					
			Min	Max							E_b	I_k	P_o	REFLECTOR COLLECTOR	E_{g_1}	HELIX VOLTAGE	GAIN	NF	PULL FACTOR	BAND WIDTH	MAG FIELD	CAVITY	COUPLING
			G_c	G_c	10^4				v	ma	v	ma	mw	v	v	v	db	db		Mc	gauss		
RK6248		MAG	8.7	8.9	450	MEC	RA	P	6.3	5000	3800	900	1M								IM		WG
MA212		MAG	8.8	10.0		FX	MA	C			420	15	1000										
MA212		MAG	8.8	10.0	1K	FX	MA	P			500	150	10W										
JP8-02		MAG	8.8	8.8	4K	FX	MU	P	6.3	1100	1000	120	25W					15			IM		WG
MA205	#	MAG	8.8	8.8	*2K	FX	MA	P	6.3	600	900	200	40W					20					WG
L3089	#	MAG	8.8	8.8	2K	FX	LI	P	6.3	900	850	200	40W								IM		WG
L3204	#	MAG	8.8	8.8	*2K	FX	LI	P	6.3	1000	800	200	40W					20		1	IM		WG
7579		MAG	8.8	8.8	*2K	FX	MA	P			800	200	40W										
MA215	#	MAG	8.8	9.6	200	FX	MA	P	6.3	600	900	500	100W					15					WG
L3509		MAG	8.8	10.5		MEC	LI	C	5.5	17A	3200	130	110W								IM		WG
L3463		MAG	8.8	10.5		MEC	LI	C	6.0	15A	4800	800	350W								IM		
L3379	#	MAG	8.8	9.5	30		LI	P					1K										
L3380	#	MAG	8.8	9.5	20		LI	P					2K										
L3381	#	MAG	8.8	9.5	10		LI	P					3K										
L3382	#	MAG	8.8	9.5	10		LI	P					4K										
M537		MAG	8.8	8.8	25	FX	EE	P	6.3	500	5500	5500	10K					15			IM		WG
TH1250B		MAG	8.8	9.0	10	MEC	CF	P	6.3	800	15K	15A	36K					15			5400		WG
TH1250	S	MAG	8.8	8.9	10	FX	CF	P	6.3	800	15K	15A	40K					15			5400		WG
2J50	X	MAG	8.8	8.9	12	FX	WE	P	6.3	1000	16K	16A	50K					15			5400		WG
6874	S#	MAG	8.8	9.4	13	MEC	SY	P	13.8	3400	23K	30A	180K					13		4	IM		WG
A1163		MAG	8.8	9.6	10	MEC	RC	P			23K	28A	215K										
4011A		MAG	8.8	9.6	10	MEC	RC	P			23K	28A	215K								IM		
6865A	S#	MAG	8.8	9.6	10	MEC	RC	P	13.8	3150	23K	28A	220K					13		4	IM		WG
L3039D	S	MAG	8.8	8.8	10	FX	LI	P	13.8	3200	22K	28A	225K					15		2	IM		WG
M529	S	MAG	8.8	9.0	10	FX	EE	P	13.8	3250	22K	28A	248K					15			IM		WG
JP9-250B	#	MAG	8.8	9.0	10	FX	MU	P	13.8	3250	23K	27A	250K					14			IM		WG
4011	#	MAG	8.8	9.6	10	MEC	RC	P	13.8	3150	23K	28A	250K					15		2	IM		WG
MXM-14		MAG	8.9	9.6	20	MEC	ME	P			1225	900	100W										
6229	X#	MAG	8.9	9.4	30	MEC		P	5.0	500	5000	500	400W					20					WG
7521		MAG	8.9	9.4	10	MEC	RA	P	5.0	450	4300	950	950W								IM		WG
BLM-012	#	MAG	8.9	9.4	30	MEC	BL	P	5.0	725	2700	2200	1K					15			IM		CO
BLM-021	#	MAG	8.9	9.4	30	MEC	BL	P	5.0	725	2700	2200	1K					15			IM		WG
BLM-046	#	MAG	8.9	9.4		MEC	BL						1K										
QK790		MAG	8.9	9.4	10	MEC	RA	P	5.0	450	4500	1000	1K								IM		WG
6230	X#	MAG	8.9	9.4	30	MEC		P	5.0	500	5000	1000	1K					20					WG

CHARACTERISTIC LISTING

TYPE NUMBER	CODE	KIND	FREQUENCY		DUTY CYCLE	TUNING	MFR	OPERATION	E_f	I_f	MAXIMUM							TYPICAL					
			Min	Max							E_b	I_k	P_o	REFLECTOR COLLECTOR	E_{g_1}	HELIX VOLTAGE	GAIN	NF	PULL FACTOR	BAND WIDTH	MAG FIELD	CAVITY	COUPLING
			G_c	G_c	10^4				v	ma	v	ma	mw	v	v	v	db	db		Mc	gauss		
L3039E	S	MAG	8.9	8.9	10	FX	LI	P	13.8	3200	22K	28A	225K						15	2	1M		WG
L3039F	S	MAG	8.9	8.9	10	FX	LI	P	13.8	3200	22K	28A	225K						15	2	1M		WG
JP9-250C	#	MAG	8.9	9.0	10	FX	MU	P	13.8	3250	23K	27A	250K						14		1M		WG
MA214	#	MAG	9.0	10.0		MEC	MA	C	6.3	500	500	15	1000						15				WG
MA214	#	MAG	9.0	10.0	1K	MEC	MA	P	6.3	500	500	75	5000						15				WG
MXM-11		MAG	9.0	9.5	20	MEC	ME	P				800	100W										
L3212		MAG	9.0	9.0	270	MEC	LI	P	6.3	500	800	550	120W						20	3	1M		WG
BLM-003		MAG	9.0	9.5		MEC	BL						150W										CO
BLM-015	#	MAG	9.0	9.5	20	MEC	BL	P	5.0	500	1500	1300	350W						17		1M		CO
2J36	X	MAG	9.0	9.2	20	FX	RA	P	6.3	1500	14K	12A	14K								2500		WG
7138	S	MAG	9.0	9.1	10	FX	MC	P	6.3	515	7400	7500	18K						15	1	1M		WG
TH1249B		MAG	9.0	9.2	10	MEC	CF	P	6.3	800	15K	15A	36K						15		5400		
TH1249	S	MAG	9.0	9.2	10	FX	CF	P	6.3	800	15K	15A	40K						15		5400		
2J49	X	MAG	9.0	9.2	12	FX	WE	P	6.3	1000	16K	16A	50K						15		5400		WG
QK367		MAG	9.0	9.4	10	FX	RA	P	6.3	1000	16K	16A	50K								1M		
M548		MAG	9.0	9.2	10	FX	EE	P	3.0	3500	14K	12A	50K						12		3800		WG
CV5031		MAG	9.0	9.2	10	FX	GC	P	3.0	3500	14K	12A	50K						12		3800		WG
7006	S#	MAG	9.0	9.6	13	MEC	SY	P	13.8	3400	23K	30A	190K						15	2	1M		WG
L3039G	S	MAG	9.0	9.0	10	FX	LI	P	13.8	3200	22K	28A	225K						15	2	1M		WG
L3039H	S	MAG	9.0	9.0	10	FX	LI	P	13.8	3200	22K	28A	225K						15	2	1M		WG
L3210	S#	MAG	9.0	9.0	10	FX	LI	P	13.8	3200	22K	28A	225K						15	2	1M		WG
55032	M	MAG	9.0	9.2	10	FX	AM	P	13.7	3500	21K	28A	225K						18				WG
4J78	X#	MAG	9.0	9.2	20	FX	WE	P	13.8	3350	23K	30A	240K						15	3	1M		WG
JP9-250A	#	MAG	9.0	9.2	10	FX	MU	P	13.8	3250	23K	27A	250K						14		1M		WG
L3030B	S	MAG	9.0	9.0	10	FX	LI	P	13.8	3200	28K	28A	300K						15	3	1M		WG
BL226		MAG	9.1	9.5			BL		5.0	500	1300	900	90W										CO
L3213		MAG	9.1	9.1	270	MEC	LI	P	6.3	500	800	550	120W						20	3	1M		WG
L3214		MAG	9.1	9.1	270	MEC	LI	P	6.3	500	800	550	120W						20	3	1M		WG
7139	S	MAG	9.1	9.2	10	FX	MC	P	6.3	515	7400	7500	18K						15	1	1M		WG
L30391	S	MAG	9.1	9.1	10	FX	LI	P	13.8	3200	22K	28A	225K						15	2	1M		WG
MAG8	S	MAG	9.2	9.6	40	FX	GC	P	6.3	200	1050	100	2000						30		2450		WG
JP9-01		MAG	9.2	9.6		FX	MU	C	6.3	1100	920	50	10W						15		1M		WG
JPG9-01	S#	MAG	9.2	9.6		MEC	MU	C	6.3	1100	920	50	10W						20		1M		WG
JPT9-01	S#	MAG	9.2	9.6		MEC	MU	C	6.3	1100	920	50	10W						20		1M		WG
JPT9-02	S#	MAG	9.2	9.6	5	MEC	MU	P	6.3	1100	1150	120	25W							20	1M		WG

CHARACTERISTIC LISTING

TYPE NUMBER	CODE	KIND	FREQUENCY		DUTY CYCLE	TUNING	MFR	OPERATION	E_f	I_f	MAXIMUM							TYPICAL					
			Min	Max							E_b	I_k	P_o	REFLECTOR COLLECTOR	E_{g_1}	HELIX VOLTAGE	GAIN	NF	PULL FACTOR	BAND WIDTH	MAG FIELD	CAVITY	COUPLING
			G_c	G_c	10^4				v	ma	v	ma	mw	v	v	v	db	db		Mc	gauss		
L3180		MAG	9.2	9.2	270	MEC	LI	P	6.3	500	800	550	120W						20	3	IM		WG
L3218		MAG	9.2	9.2	270	MEC	LI	P	6.3	500	800	550	120W						20	3	IM		WG
L3226		MAG	9.2	9.2	270	MEC	LI	P	6.3	500	800	550	120W								IM		WG
JP9-7A	X	MAG	9.2	9.3	25	FX		P	6.3	600	6000	5500	7K						15		IM		WG
L3029A		MAG	9.2	9.3	30	MEC	LI	P	6.3	1000	5800	3800	7K						20	5	IM		WG
L3029B		MAG	9.2	9.3	30	MEC	LI	P	6.3	1000	5800	3800	7K						20	5	IM		WG
CV370	X	MAG	9.2	9.3	10	FX		P	6.3	550	5700	4500	8K						15		IM		WG
M508	S	MAG	9.2	9.3	25	FX	EE	P	6.3	500	5500	5500	10K						15		IM		WG
7140	S	MAG	9.2	9.3	10	FX	MC	P	6.3	515	7400	7500	18K						15	1	IM		WG
2J56A		MAG	9.2	9.3	10	FX	RA	P	6.3	1000	12K	12A	40K								IM		WG
2J56	M	MAG	9.2	9.3	10	FX	RA	P	6.3	1000	16K	16A	50K						15		IM		WG
JP9-50	#	MAG	9.2	9.3	10	FX	MU	P	6.3	2100	13K	12A	50K						15		IM		WG
L3036F	S#	MAG	9.2	9.2	10	FX	LI	P	12.6	2300	15K	15A	65K						15	2	IM		WG
L3036G	S#	MAG	9.2	9.2	10	FX	LI	P	12.6	2300	15K	15A	65K						15	2	IM		WG
QK366A	S#	MAG	9.2	9.3	10	FX	RA	P	6.3	2900	16K	14A	75K						15	4	IM		WG
RK6967A	S#	MAG	9.2	9.3	10	FX	RA	P	6.3	2900	16K	14A	75K						15	4	IM		CO
MAG7	#	MAG	9.2	10.0	10	FX	GC	P	2.0	10A	16K	15A	80K						15		IM		WG
JP9-80A	S	MAG	9.2	9.3	10	FX	MU	P	12.6	2100	15K	15A	80K						15		IM		WG
7692	#	MAG	9.2	9.6	13	MEC	SY	P	13.8	3200	22K	21A	220K						12		IM		WG
L3039J	S	MAG	9.2	9.2	10	FX	LI	P	13.8	3200	22K	28A	225K						15	2	IM		WG
L3039K	S	MAG	9.2	9.2	10	FX	LI	P	13.8	3200	22K	28A	225K						15	2	IM		WG
L3209	S#	MAG	9.2	9.2	10	FX	LI	P	13.8	3200	22K	28A	225K						15	2	IM		WG
55031	M	MAG	9.2	9.3	10	FX	AM	P	13.7	3500	21K	28A	225K						18				WG
M538A	S	MAG	9.2	9.3	15	FX	EE	P	13.8	3250	22K	28A	248K						15		IM		WG
6002	X	MAG	9.2	9.4	10	FX	RA	P	4.0	44A	30K	32A	250K						15		IM		WG
L3030C	S	MAG	9.2	9.2	10	FX	LI	P	13.8	3200	28K	28A	300K						15	3	IM		WG
7503		MAG	9.3	9.5	20	MEC	SY	P	5.0	650	2000	850	200						15		IM		CO
MA222		MAG	9.3	9.4	20	FX	MA	C			5500	4500	1000										CO
QK362		MAG	9.3	9.5	20	MEC	RA	P	5.0	600	2000	1000	50W								IM		
7098	#	MAG	9.3	9.5	20	MEC	SY	P	5.0	650	2000	1250	60W						15	3	IM		CO
L3105	S#	MAG	9.3	9.3	100	FX	LI	P	6.3	500	800	550	100W						20	3	IM		WG
L3186	S#	MAG	9.3	9.3	100	FX	LI	P	6.3	500	800	550	100W						20	3	IM		WG
L3028B		MAG	9.3	9.3	270	MEC	LI	P	6.3	500	800	550	120W						20	3	IM		WG
L3028C		MAG	9.3	9.3	270	MEC	LI	P	6.3	500	800	550	120W						20	3	IM		WG
L3028D		MAG	9.3	9.3	270	MEC	LI	P	6.3	500	800	550	120W								IM		WG

CHARACTERISTIC LISTING

TYPE NUMBER	CODE	KIND	FREQUENCY		DUTY CYCLE	TUNING	MFR	OPERATION	E_f	I_f	MAXIMUM							TYPICAL					
			Min	Max							E_b	I_k	P_o	REFLECTOR COLLECTOR	E_{g_1}	HELIX VOLTAGE	GAIN	NF	PULL FACTOR	BAND WIDTH	MAG FIELD	CAVITY	COUPLING
			G_c	G_c	10^4				v	ma	v	ma	mw	v	v	v	db	db		Mc	gauss		
L3087A		MAG	9.3	9.3	270	MEC	LI	P	5.0	600	800	550	120W						20	3	IM		WG
L3181		MAG	9.3	9.3	270	MEC	L1	P	6.3	500	800	550	120W						20	3	IM		WG
L3187		MAG	9.3	9.3	270	MEC	LI	P	5.0	600	800	550	120W						20	3	IM		WG
L3601		MAG	9.3	9.3	270	MEC	L1	P	6.3	500	800	550	120W								IM		WG
7461	#	MAG	9.3	9.5	20	MEC	RA	P	5.0	650	1550	950	120W								IM		CO
A1150		MAG	9.3	9.3	270	MEC	RC	P			900	550	140W								IM		WG
L3603	#	MAG	9.3	9.3	200	FX	LI	P	6.3	500	1300	1300	500W								IM		WG
L3606	#	MAG	9.3	9.3	100	FX	LI	P	6.3	900	1300	1300	500W								IM		WG
L3058		MAG	9.3	9.4	30	MEC	LI	P	6.3	500	2800	1330	1K						20	3	IM		WG
L3182	#	MAG	9.3	9.3	30	FX	L1	P	6.3	500	2800	1330	1K						20	3	IM		WG
L3225		MAG	9.3	9.4	30	MEC	LI	P	6.3	500	2800	1330	1K								IM		WG
L3238	#	MAG	9.3	9.3	30	FX	LI	P	6.3	500	2800	1333	1K								IM		WG
L3384		MAG	9.3	9.3	300	MEC	LI	P	6.3	500	2800	1330	1K								IM		WG
L3429	#	MAG	9.3	9.3	50	FX	LI	P	6.3	500	1400	2200	1K								IM		WG
L3430	#	MAG	9.3	9.3	50	FX	LI	P	6.3	900	1400	2200	1K								IM		WG
L3604	#	MAG	9.3	9.3	30	FX	L1	P	6.3	500	2800	1300	1K								IM		WG
L3157	#	MAG	9.3	9.3	10	FX	L1	P	6.3	500	3400	2250	2K						20	2	IM		WG
L3239	#	MAG	9.3	9.3	20	FX	L1	P	6.3	500	3300	2250	2K								IM		WG
JP9-2.5		MAG	9.3	9.5	10	FX	MU	P	6.3	500	3800	3000	3K						18		IM		WG
L3605	#	MAG	9.3	9.3	10	FX	L1	P	6.3	500	3600	3150	3K								IM		WG
7028	M	MAG	9.3	9.5	10	FX	MU	P	6.3	500	3500	2500	3K						14		IM		WG
L3268		MAG	9.3	9.3	10	FX	L1	P					4K										
2J42F		MAG	9.3	9.4	25	FX	SF	P	6.3	480	6000	5500	7K								IM		
2J42H	M	MAG	9.3	9.4	20	FX		P	6.3	520	6300	5500	7K						18	5	IM		WG
JP9-7	S#	MAG	9.3	9.4	25	FX	MU	P	6.3	600	6000	5500	7K						15		IM		WG
MA209	#	MAG	9.3	10.0	10	MEC	MA	P	6.3	800	6000	5000	7K						20				WG
MA218	#	MAG	9.3	10.0	20	MEC	MA	P	6.3	800	6000	5000	7K						20				WG
L3029C		MAG	9.3	9.4	30	MEC	LI	P	6.3	1000	5800	3800	7K						20	5	IM		WG
L3029D	#	MAG	9.3	9.3	30	MEC	L1	P	6.3	1000	5800	3800	7K								IM		WG
LT6233	S#	MAG	9.3	9.3	30	MEC	L1	P	6.3	1000	5800	3800	7K						20	5	IM		WG
JP9-7D	M#	MAG	9.3	9.4	20	FX		P	6.3	600	6000	6000	9K						15		IM		WG
2J42	X#	MAG	9.3	9.4	25	FX	SY	P	6.3	600	6000	5500	10K						15	1	IM		WG
2J42B	#	MAG	9.3	9.4	25	FX	SY	P	6.3	600	5700	5500	10K						15		IM		WG
M503A		MAG	9.3	9.4	25	FX	EE	P	6.3	500	5500	4500	10K						15		IM		WG
MAG3	X	MAG	9.3	9.4	1	FX		P	6.3	550	6100	7200	12K						15		IM		WG

CHARACTERISTIC LISTING

TYPE NUMBER	CODE	KIND	FREQUENCY		DUTY CYCLE	TUNING	MFR	OPERATION	E_f	I_f	MAXIMUM							TYPICAL						
			Min	Max							E_b	I_k	P_o	REFLECTOR COLLECTOR	E_{g_1}	HELIX VOLTAGE	GAIN	NF	PULL FACTOR	BAND WIDTH	MAG FIELD	CAVITY	COUPLING
			G_c	G_c	10^4				v	ma	v	ma	mw	v	v	v	db	db		Mc	$gauss$		
6027	X*	MAG	9.3	9.4	25	FX	SY	P	6.3	600	8000	8000	18K						15	1	IM		WG
6027H	S#	MAG	9.3	9.4	25	FX	SY	P	6.3	600	8000	8000	18K						15		IM		WG
7141	S	MAG	9.3	9.4	10	FX	MC	P	6.3	515	7400	7500	18K						15	1	IM		WG
JP9-15	X#	MAG	9.3	9.4	10	FX		P	6.3	600	8000	8000	20K						18		IM		WG
M513A	S	MAG	9.3	9.4	25	FX	EE	P	6.3	500	7500	8500	20K						15		IM		WG
M559	S	MAG	9.3	9.4	25	FX	EE	P	6.3	500	8000	8000	20K						15	2	IM		WG
TH1725B		MAG	9.3	9.5	10	MEC	CF	P	6.3	800	15K	15A	36K						15		5400		WG
TH1725C	S	MAG	9.3	9.5	10	MEC	CF	P	6.3	800	15K	15A	36K						15		5400		WG
2J53		MAG	9.3	9.4	12	FX	WE	P	6.3	1000	16K	16A	40K								5400		WG
730A	M	MAG	9.3	9.4	12	FX		P	6.3	1000	16K	16A	40K								5400		
TH1725A	S	MAG	9.3	9.4	10	FX	CF	P	6.3	800	15K	15A	40K						15		5400		WG
2J55	M	MAG	9.3	9.4	10	FX	RA	P	6.3	1000	16K	16A	50K						15		IM		WG
725A	X	MAG	9.3	9.4	10	FX		P	6.3	1000	16K	16A	50K						15		5400		WG
L3036B	S#	MAG	9.3	9.3	10	FX	LI	P	12.6	2300	15K	15A	65K						15	2	IM		WG
JP9-75		MAG	9.3	9.4	20	FX	MU	P	10.0	2850	16K	18A	75K						15		IM		WG
6972	M	MAG	9.3	9.4	20	FX	RE	P	10.0	2850	20K	18A	75K						15		IM		WG
4J52	X	MAG	9.3	9.4	10	FX	BT	P	12.6	2100	15K	15A	80K						15		IM		WG
4J52F		MAG	9.3	9.4	10	FX	SF	P	12.6	2000	16K	16A	80K								IM		
JP9-80	S#	MAG	9.3	9.4	10	FX	MU	P	12.6	2100	15K	15A	80K						15		IM		WG
TH1452A		MAG	9.3	9.3	20	FX	CF	P	12.6	2100	16K	30A	80K						15		IM		WG
JP9-180		MAG	9.3	9.4	5	FX	MU	P	12.6	2250	24K	25A	180K						15		IM		WG
M502A	S	MAG	9.3	9.4	5	FX	EE	P	12.6	2250	21K	25A	200K						15		IM		WG
L3039L	S	MAG	9.3	9.3	10	FX	LI	P	13.8	3200	22K	28A	225K						15	2	IM		WG
L3039M	S	MAG	9.3	9.3	10	FX	LI	P	13.8	3200	22K	28A	225K						15	2	IM		WG
L3152	S#	MAG	9.3	9.3	10	FX	LI	P	13.8	3200	22K	28A	225K						15	2	IM		WG
55030	M	MAG	9.3	9.4	10	FX	AM	P	13.7	3500	21K	28A	225K						18				WG
4J50	X#	MAG	9.3	9.4	20	FX	WE	P	13.8	3350	23K	28A	250K						15	3	IM		WG
JP9-250	#	MAG	9.3	9.4	10	FX	MU	P	13.8	3250	23K	27A	250K						14		IM		WG
M504		MAG	9.3	9.4	6	FX	EE	P	5.0	40A	35K	50A	750K						15		7000		WG
QK172	S	MAG	9.3	9.4	10	FX	RA	P	6.0	30A	33K	67A	800K							4	IM		WG
RK6959	S*	MAG	9.3	9.4	10	FX	RA	P	6.0	30A	33K	67A	800K							4	IM		WG
QK624		MAG	9.3	9.4	10	FX	RA	P	3.6	36A	40K	69A	1M								IM		WG
7718		MAG	9.3	9.4	9	FX	RA	P	3.6	36A	39K	69A	1M								IM		WG
L3327		MAG	9.4	9.4	270	MEC	LI	P	6.3	500	800	550	120W								IM		WG
MXM-10		MAG	9.4	9.4	4	FX	ME	P			2800	1500	800W										

TYPE NUMBER	CODE	KIND	FREQUENCY		DUTY CYCLE	TUNING	MFR	OPERATION	E_f	I_f	MAXIMUM							TYPICAL					
			Min	Max							E_b	I_k	P_o	REFLECTOR COLLECTOR	E_{g_1}	HELIX VOLTAGE	GAIN	NF	PULL FACTOR	BAND WIDTH	MAG FIELD	CAVITY	COUPLING
			G_c	G_c	10^4				v	ma	v	ma	mw	v	v	v	db	db		Mc	gauss		*
7446/BL233		MAG	9.4	9.4		FX	BL						800W										WG
MXM-12		MAG	9.4	9.4	4	FX	ME	P			3700	4330	4K										
QK798		MAG	9.4	9.4	3	FX	RA	P	5.0	650	5000	3500	5K										CO
L3431		MAG	9.4	9.4	10	FX	LI	P	6.3	1300	7000	7000	18K								IM		WG
7142	S	MAG	9.4	9.5	10	FX	MC	P	6.3	515	7400	7500	18K					15	1		IM		WG
L3168	S	MAG	9.4	9.4	20	FX	LI	P	12.6	2300	12K	10A	30K					15	2		IM		WG
MAG2		MAG	9.4	9.5	2	FX	GC	P	3.0	2500	15K	10A	45K					15			3250		WG
M506A	S	MAG	9.4	9.5		FX	EE	P	3.0	3500	11K	12A	50K					15			3250		WG
MAG5		MAG	9.4	9.5	10	FX	GC	P	3.0	2300	17K	12A	60K					15			3800		WG
M505		MAG	9.4	9.5	10	FX	EE	P	3.0	3500	11K	12A	60K					15			3250		WG
L3036A	S#	MAG	9.4	9.4	10	FX	LI	P	12.6	2300	15K	15A	65K					15	2		IM		WG
L3036E	S#	MAG	9.4	9.4	10	FX	LI	P	12.6	2300	15K	15A	65K					15	2		IM		WG
LT6510	S*	MAG	9.4	9.4	10	FX		P	12.6	2300	15K	15A	65K					15	2		IM		WG
4J52A	X*	MAG	9.4	9.4	10	FX		P	12.6	2300	15K	15A	90K					13	2		IM		WG
L3037	S#	MAG	9.4	9.4	10	FX	LI	P	12.6	2300	15K	15A	90K					13	2		IM		WG
L3156	S	MAG	9.4	9.4	20	FX	LI	P	13.8	3200	20K	16A	112K					15	6		IM		WG
L3039N	S	MAG	9.4	9.4	10	FX	LI	P	13.8	3200	22K	28A	225K					15	2		IM		WG
L3039P	S#	MAG	9.4	9.4	10	FX	LI	P	13.8	3200	22K	28A	225K					15	2		IM		WG
L3151	S#	MAG	9.4	9.4	10	FX	LI	P	13.8	3200	22K	28A	225K					15	2		IM		WG
L3153	S#	MAG	9.4	9.4	10	FX	LI	P	13.8	3200	22K	28A	225K					15	2		IM		WG
L3613	S	MAG	9.4	9.4	10	FX	LI	P	13.8	3350	22K	28A	225K								1M		WG
55029	M	MAG	9.4	9.5	10	FX	AM	P	13.7	3500	21K	28A	225K					18					WG
4J50A	X	MAG	9.4	9.4	10	FX		P	13.8	3200	22K	28A	250K					15	2		IM		WG
L3030	S	MAG	9.4	9.4	10	FX	LI	P	13.8	3200	28K	28A	300K					15	3		IM		WG
SFD303		MAG	9.4	9.4		FX	VA	P					1M										
JP9-7B		MAG	9.5	9.6	25	FX	MU	P	6.3	600	6000	5500	7K					15			IM		WG
M535		MAG	9.5	9.6	25	FX	EE	P	6.3	500	5500	5500	9K					15			IM		WG
7143	S	MAG	9.5	9.6	10	FX	MC	P	6.3	515	7400	7500	18K					15	1		IM		WG
L3154	S#	MAG	9.5	9.5	10	FX	LI	P	13.8	3200	22K	28A	225K					15	2		IM		WG
M521	S	MAG	9.6	9.7	10	FX	EE	P	3.0	3500	11K	12A	45K					15			3250		WG
CV214		MAG	9.6	9.7	5	FX	GC	P	3.0	2500	16K	10A	47K					15			3250		WG
CV2111/2114		MAG	9.6	9.9	5	FX	GC	P	6.3	1300	14K	10A	50K					15			3250		WG
L3155	S#	MAG	9.6	9.6	10	FX	LI	P	13.8	3200	22K	28A	225K					15	2		IM		WG
M523	S	MAG	9.6	9.7	10	FX	EE	P	13.8	3250	22K	28A	248K					15			IM		WG
M546	S	MAG	9.7	9.8	10	FX	EE	P	13.8	3250	22K	28A	248K					15			IM		WG

CHARACTERISTIC LISTING

TYPE NUMBER	CODE	KIND	FREQUENCY		DUTY CYCLE	TUNING	MFR	OPERATION	E_f	I_f	MAXIMUM							TYPICAL					
			Min	Max							E_b	I_k	P_o	REFLECTOR COLLECTOR	E_{g_1}	HELIX VOLTAGE	GAIN	NF	PULL FACTOR	BAND WIDTH	MAG FIELD	CAVITY	COUPLING
			G_c	G_c	10^4				v	ma	v	ma	mw	v	v	v	db	db		Mc	$gauss$		
M547	S	MAG	9.8	10.0	10	FX	EE	P	13.8	3250	22K	28A	248K						15		IM		WG
L3434	#	MAG	10.0	10.0	270	FX	LI	P	6.3	500	800	550	100W								1M		WG
JNT1-500		MAG	12.2	13.5	20	MEC	MU	P	24.0	2200	34K	60A	600K						5		1400		CO
M555		MAG	14.0	16.0	10	FX	EE	P	12.6	2250	16K	15A	65K						25		1M		WG
7208A	S	MAG	15.5	17.5	10	MEC	WE	P	12.6	3250	20K	20A	125K						6		1M		WG
7208B	S#	MAG	15.5	17.5	10		WE	P	12.6	3250	20K	20A	130K						6	4	1M		WG
QK324		MAG	15.8	16.2	28	FX	RA	P	4.8	12A	30K	14A	70K								1M		
RK7452		MAG	15.8	16.1	22	FX	RA	P	4.8	13A	24K	50A	70K								1M		WG
RK7630	S	MAG	15.8	16.2	22	MEC	RA	P	4.8	12A	24K	52A	70K								1M		WG
7208	S	MAG	15.8	17.2	10	MEC	WE	P	13.9	3500	18K	17A	100K						6		1M		WG
BL216		MAG	15.9	16.1		FX	BL						100K										WG
BLM-027		MAG	16.0	16.4		MEC	BL						500W										WG
L3358	#	MAG	16.0	16.5	10		LI	P					1K										
L3496	#	MAG	16.0	16.5	30	FX	LI	P	6.3	700	3000	1600	1K								1M		WG
L3359	#	MAG	16.0	16.5	10		LI	P					2K										
L3306	S	MAG	16.0	17.0	20		LI	P					30K										
JP16-40		MAG	16.0	17.0	10	FX	MU	P	6.3	2200	12K	15A	48K						25		IM		WG
L3083A	S#	MAG	16.0	17.0	10	MEC	LI	P	12.6	2400	17K	16A	60K								IM		WG
L3083B	S#	MAG	16.0	17.0	10	MEC	LI	P	12.6	2400	17K	16A	60K								1M		WG
L3083C	S#	MAG	16.0	17.0	10	MEC	LI	P	12.6	2400	17K	16A	60K								1M		WG
L3101A	S	MAG	16.0	17.0	10	MEC	LI	P	12.6	2400	17K	16A	60K								IM		WG
L3101B	S	MAG	16.0	17.0	10	MEC	LI	P	12.6	2400	17K	16A	60K								1M		WG
L3101C	S	MAG	16.0	17.0	10	MEC	LI	P	12.6	2400	17K	16A	60K								1M		WG
L3383	#	MAG	16.2	16.3	30	FX	LI	P	6.3	950	3000	2000	1K								1M		WG
L3452	#	MAG	16.2	16.2	30	FX	LI	P	6.3	950	3600	2750	2K								1M		WG
R9509		MAG	16.2	17.2			EM	P	6.3	7500	18K	30A	50K						10		1M		WG
L3498	#	MAG	16.3	16.3	30	FX	LI	P	6.3	950	3600	2750	2K								1M		WG
QK319		MAG	16.3	16.7	10	FX	RA	P	5.0	6000	16K	17A	40K								1M		
RK6841	#	MAG	16.4	16.6	10	FX	RA	P	4.0	10A	19K	16A	50K						15		1M		WG
L3326	#	MAG	16.5	16.5	10	FX	LI	P	12.6	2400	17K	16A	60K								1M		WG
7449	#	MAG	23.7	24.3	3	FX	RA	P	5.0	3200	14K	15A	55K								IM		WG
M4154		MAG	23.7	24.3	7	FX	SY	P	5.0	3200	16K	20A	65K						45		IM		WG
6551	M#	MAG	23.8	24.3	7	FX	RA	P	5.0	3200	16K	18A	34K						30	15	1M		WG
BLM-006		MAG	23.8	24.3		FX	BL						40K										WG
QK389		MAG	23.8	24.3	7	FX	RA	P	5.0	2900	14K	18A	50K								1M		

TYPE NUMBER	CODE	KIND	FREQUENCY		DUTY CYCLE	TUNING	MFR	OPERATION	E_f	I_f	MAXIMUM							TYPICAL					
			Min	Max							E_b	I_k	P_o	REFLECTOR COLLECTOR	E_{g_1}	HELIX VOLTAGE	GAIN	NF	PULL FACTOR	BAND WIDTH	MAG FIELD	CAVITY	COUPLING
			G_c	G_c	10^4				*v*	*ma*	*v*	*ma*	*mw*	*v*	*v*	*v*	*db*	*db*		*Mc*	*gauss*		
BLM-068		MAG	24.0	24.0		FX	BL	P					25K										
MA21A	#	MAG	34.2	34.7	4	MEC	MA	P	12.6	3000	13K	20A	40K								IM		
MA210A	#	MAG	34.2	34.7	4	MEC	MA	P	12.6	3000	13K	20A	40K						40				WG
8MA6		MAG	34.4	35.4	4	FX	EB	P	12.0	4000	22K	25A	100K						45		IM		WG
R6138	S	MAG	34.5	35.3	4	FX	EM	P	6.3	2400	16K	13A	18K						40	10	IM		WG
M4063	#	MAG	34.5	35.2	6	FX	SY	P	6.3	2400	13K	20A	20K						45		IM		WG
7619	S#	MAG	34.5	35.2	6	FX	SY	P	12.6	2800	13K	13A	25K						30		IM		WG
JP35-30		MAG	34.5	35.2	3	FX	MU	P	4.0	4A	16K	16A	32K						40		IM		WG
5789	X	MAG	34.5	35.2	6	FX	SY	P	6.0	2400	14K	20A	32K						55	15	IM		WG
7093	M	MAG	34.5	35.2	3	FX	RE	P	4.0	4300	15K	16A	32K						40		IM		WG
R9515		MAG	34.5	35.3			EM	P	6.3	4000	16K	25A	35K						80		IM		WG
M4155A	#	MAG	34.5	35.2	4	FX	SY	P	6.3	2400	13K	20A	40K						40		IM		WG
M4064	#	MAG	34.5	35.2	2	FX	SY	P	6.3	2400	20K	24A	70K						40		IM		WG
6799	#	MAG	34.5	35.2	4	FX	SY	P	6.0	2400	20K	40A	104K						50	3	IM		WG
MA210B	#	MAG	34.6	35.1	4	MEC	MA	P	12.6	3000	13K	20A	40K						40				WG
MA211	#	MAG	34.7	35.0	14	FX	MA	P	12.6	3000	11K	8A	10K						40		IM		WG
MA206	S#	MAG	34.7	35.0	5	FX	MA	P	12.6	3000	13K	10A	20K						40				WG
MA200	S	MAG	34.7	35.0	4	FX	MA	P	12.6	3000	13K	20A	40K						40				WG
7361	#	MAG	34.7	35.0	6	FX		P	12.6	2800	13K		40K						40		IM		WG
MA207	S#	MAG	34.7	35.0	4	FX	MA	P	12.6	3000	13K	20A	50K						60				WG
MA21/C	#	MAG	35.0	35.5	4	MEC	MA	P	12.6	3000	13K	20A	40K						40	10	IM		WG
MA210C	#	MAG	35.0	35.5	4	MEC	MA	P	12.6	3000	13K	20A	40K						40				WG
BL235	#	MAG	51.0	54.0	10	FX	BL	P					10K										WG
BL50		MAG	51.5	55.5	15		BL	P	2.0	27A	18K	10A	5K								IM		WG
BL218		MAG	51.5	55.5	15		BL	P	6.3	3000	18K	10A	5K								IM		WG
BL236	#	MAG	54.0	57.0	10	FX	BL	P					10K										WG
BL50A		MAG	54.5	57.5	15		BL	P	2.0	27A	18K	10A	5K								IM		WG
BL219		MAG	54.5	57.5	15		BL	P	6.3	3000	18K	10A	5K								IM		WG
BL50B		MAG	56.5	60.0	15		BL	P	2.0	27A	18K	10A	5K								IM		WG
BL220		MAG	56.5	60.0	15		BL	P	6.3	3000	18K	10A	5K								IM		WG
BL237	#	MAG	57.0	60.0	10	FX	BL	P					10K										WG
BL221	#	MAG	69.0	70.5	5	FX	BL	P					10K										WG
DX164	M	MAG	75.0	75.0	2	FX		P	4.8	4000	13K	10A	25K										WG
R9551		MAG	80.0	80.0		FX	EM	P	9.0	3000	12K	8000	2K								IM		WG
L3497	#	TWA			600	VT	L1	P					6K				40						CO

CHARACTERISTIC LISTING

TYPE NUMBER	CODE	KIND	FREQUENCY		DUTY CYCLE	TUNING	MFR	OPERATION	E_f	I_f	MAXIMUM							TYPICAL					
			Min	Max							E_b	I_k	P_o	REFLECTOR COLLECTOR	E_{g_1}	HELIX VOLTAGE	GAIN	NF	PULL FACTOR	BAND WIOTH	MAG FIELD	CAVITY	COUPLING
			G_c	G_c	10^4				v	ma	v	ma	mw	v	v	v	db	db		Mc	$gauss$		
L3264		TWA	.1	.3			LI	C					100W										
HA51		TWA	.2	.5		VT	HU	C	6.3	1500	200	10	10	220		220	20				IM		CO
X322		TWA	.2	.5			IT	C			150	10	300				35						
STP256		TWA	.2	.5	5K		SP	P	12.6	2500	850	80	1000		22		30				IM		CO
STP172	#	TWA	.2	.5			SP	C	12.6	2500	1000	85	3500		24		37	35			100		CO
STP234		TWA	.2	.5			SP	C			590	85A	2W				35				IM		
STP49	#	TWA	.2	.5		FX	SP	C	12.6	3300	2200	850	200W				30			270	380		CO
STP106	#	TWA	.3	.6			SP	C	6.3	1520	290	600U	5	400		270	20		10		150		CO
STP107	#	TWA	.3	.6		FX	SP	C	6.3	4000	400	70	2000		24		32						CO
STP108	#	TWA	.3	.6	5K	FX	SP	P	12.6	3000	2200	750	200W				30				750		CO
STL122	#	TWA	.4	.7		FX	SP	C	6.3	1800	800	45	3000				35				300		CO
STL248		TWA	.4	1.0			SP	C	12.6	2500	1800	700	200W				33				500		CO
DA3		TWA	.5	1.0		VT	HU	C	6.3	1100	450	2		1065		1K	30			150	250		CO
DHA3		TWA	.5	1.0		VT	HU	C	6.3	750	450	1		1015		1K	33			150	100		CO
HA40		TWA	.5	1.0		VT	HU	C	6.3	850	20	2		450		130	25	15			800		CO
HA45		TWA	.5	1.0			HU	C	6.3	1000	50	2	1	400		120	25	10			820		CO
HA72		TWA	.5	1.0		VT	HU	C	6.3	1200	30	2	1	400		120		8			820		CO
HA52		TWA	.5	1.0			HU	C					5				30						CO
G-020		TWA	.5	1.0			GL						10										
G-020P		TWA	.5	1.0			GL						10										
HA7		TWA	.5	1.0		VT	HU	C	6.3	1400	90	4	10	270	50	120	30				300		CO
HA36		TWA	.5	1.0		VT	HU	C	6.3	1400	175	8	10	300		300	20				IM		CO
X323		TWA	.5	1.0			IT	C			200	5	150				35						
HA8		TWA	.5	1.0		VT	HU	C	7.0	2200	500	60	1000	500	200	500	30				560		CO
HA58		TWA	.5	1.0		VT	HU	C					1000				30						CO
X341		TWA	.5	1.0			IT	C			365	35	1000										
STL235		TWA	.5	1.0			SP	C	6.3	2500	750	80	2000		24		37	35			IM		CO
STL257		TWA	.5	1.0			SP	C	6.3	2500	750	80	2000		24		32	40			IM		CO
STL171	#	TWA	.5	1.0			SP	C	6.3	2500	1000	80	3500		24		37	30			225		CO
STL48	#	TWA	.5	1.0		FX	SP	C	12.6	5000	3300	625	200W				30				200		CO
VA132	#	TWA	.5	1.0			VA	C			2500	800	200W				30						
VA134		TWA	.5	.6			VA	P					5K				45			120	IM		
X325		TWA	.5	1.0			IT	P			4000	3500	1M				33						
X287		TWA	.6	1.2			IT	C			125	500U	1				20	11					
X295		TWA	.6	1.0			IT	C			1000	125	15W				33						

CHARACTERISTIC LISTING

TYPE NUMBER	CODE	KIND	FREQUENCY		DUTY CYCLE	TUNING	MFR	OPERATION	E_f	I_f	MAXIMUM							TYPICAL					
			Min	Max							E_b	I_k	P_o	REFLECTOR COLLECTOR	E_{g_1}	HELIX VOLTAGE	GAIN	NF	PULL FACTOR	BAND WIOTH	MAG FIELD	CAVITY	COUPLING
			G_c	G_c	10^4				v	ma	v	ma	mw	v	v	v	db	db		Mc	gauss		
A1210		TWA	.8	1.4			RC	C				1	10	320		320	25	17			IM		
STL154	#	TWA	.9	1.2	50	FX	SP	P	6.3	2000	11K	3900	4K				39				580		CO
DA2		TWA	1.0	2.0		VT	HU	C	6.3	1200	330	750U		1020		1K	33			300	250		CO
DHA2		TWA	1.0	2.0		VT	HU	C	6.3	750	350	200U		920		1K	33			300	100		CO
HA14		TWA	1.0	2.0		VT	HU	C	6.3	700	100	2		190		190	25	11			1000		CO
HA63		TWA	1.0	2.0			HU																
WJ212		TWA	1.0	2.0			WJ	C	4.5	800	30	60U		500		155	20	5					CO
HA73		TWA	1.0	2.0		VT	HU	C	6.3	800	150	2	1	500		200	25	8			1000		CO
HA17		TWA	1.0	2.0		VT	HU	C	6.3	700	100	2	3	200		200	25	15			1000		CO
HA27		TWA	1.0	2.0			HU	C	7.0	1000	700	5	5	650		500	30						CO
A1139		TWA	1.0	2.0		VT	RC	C	6.3	850		2	5	1000		330	25	10			400		CO
G-050		TWA	1.0	2.0			GL						10										
G-050P		TWA	1.0	2.0			GL						10										
G-070		TWA	1.0	2.0			GL						10										
HA5		TWA	1.0	2.0		VT	HU	C	6.3	1300	150	4	10	370	5	220	30				400		CO
HA31		TWA	1.0	2.0		VT	HU	C	6.3	1200	175	4	10	220		220	30				IM		CO
A1171		TWA	1.0	2.0		VT	RC	C	6.3	600		2	10	400		400	32	15			IM		CO
4019		TWA	1.0	2.0			RC	C	6.3	600	500	2	10	1000	100	1K	28	17			IM		CO
TW4006		TWA	1.0	2.0			SY	C	6.3	800	180	5	15	400		250	40			1K	IM		CO
TW4267		TWA	1.0	2.0			SY	C	6.3	1000		10	15	250	175	400	35				IM		CO
6753		TWA	1.0	2.0			SY	C	6.3	800	175	4	15	350		250	40			1K	300		CO
X276		TWA	1.0	2.0			IT	C			380	14	100				30						
A1121		TWA	1.0	2.0		VT	RC	C	6.3	1250	320	6	150	600		560	27				IM		CO
HA18		TWA	1.0	2.0			HU	C	7.0	1400	550	65	1000	850		850	30				1000		CO
X271		TWA	1.0	2.0			IT	C			980	50	1000				30						
X332		TWA	1.0	2.0			IT	C			1200	17	1000				30						
A1178A	S	TWA	1.0	2.0		VT	RC	C	6.3	1900	825	30	1000	900		800	30				IM		CO
TW4007		TWA	1.0	2.0			SY	C	6.3	1300		60	1000	250	150	800	35				IM		CO
4021	S	TWA	1.0	2.0			RC	C	6.3	1800	1200	45	1000	1200	100	1K	32				IM		CO
TW4268		TWA	1.0	2.0			SY	C	6.3	1300		60	1000	250	150	800	30				IM		CO
HA53		TWA	1.0	2.0		VT	HU	C	7.0	1400	600	75	2000	1300	100	1K	30					IM	CO
STL70	#	TWA	1.0	2.0		FX	SP	C	6.3	3400	900	34	2000		30		48				300		CO
STL222	#	TWA	1.0	2.0		FX	SP	C	6.3	3200	1000	35	2000		35		48				IM		CO
TW620A		TWA	1.0	2.0			SY	C	6.3	1400		55	2000	750		600	39			1K	600		CO
6752		TWA	1.0	2.0			SY	C	6.3	1300	250	65	2000	250	800	1K	37				615		CO

CHARACTERISTIC LISTING

TYPE NUMBER	CODE	KIND	FREQUENCY		DUTY CYCLE	TUNING	MFR	OPERATION	E_f	I_f	MAXIMUM							TYPICAL					
			Min	Max							E_b	I_k	P_o	REFLECTOR COLLECTOR	E_{g_1}	HELIX VOLTAGE	GAIN	NF	PULL FACTOR	BAND WIDTH	MAG FIELD	CAVITY	COUPLING
			G_c	G_c	10^4				v	ma	v	ma	mw	v	v	v	db	db		Mc	$gauss$		
X314		TWA	1.0	2.0			1T	C			1400	90	10W				30						
X333		TWA	1.0	2.0			1T	C			2000	14	10W				30						
VA601		TWA	1.0	2.0			VA	C					50W				40						CO
X277		TWA	1.0	2.0	1K		1T	P			3500	380	100W				20						
STL200		TWA	1.0	2.0		FX	SP	C	12.6	3600	34K	395	200W				50				500		CO
STL100	#	TWA	1.0	2.0		FX	SP	C	12.6	5700	5300	420	250W				45				475		CO
TW538		TWA	1.0	2.0	150		SY	P	6.3	2750	8000	2500	1K	8000	250	8K	33			1K	600		CO
X244D		TWA	1.0	1.2	320		1T	P			20K	6000	50K				30						
X327		TWA	1.0	2.0	200		1T	P			5000	2000	1M				33						
WJ212-1		TWA	1.1	1.6			WJ	C	4.5	800	30	60U		500		155	20	4					CO
A1217		TWA	1.1	1.4			RC	C				200U	500U	500		175	20	4					
A1056	S	TWA	1.1	1.4		VT	RC	C	5.0	650		150U	1	200		175	25	8			400		CO
STL111	#	TWA	1.1	1.6		FX	SP	C	6.3	1800	800	48	3000				30				300		CO
STL114	#	TWA	1.1	1.6	40	FX	SP	P	6.3	2100	14K	5000	5K				39				700		CO
STL260		TWA	1.2	1.4	75		SP	P	6.3	2500	2000	200			48		60				1M		CO
N1017M		TWA	1.2	1.4		VT	EE	C	6.3	360	120	250U	300U	500		255	23	8			450		CO
A1217-V6		TWA	1.2	1.4			RC	C				200U	500U	500		175	20	4					
VA133		TWA	1.2	1.4			VA	C					5K				50			150	1M		
VA131	#	TWA	1.2	1.6			VA	P			25K	12A	50K		250		45				1M		
STL109		TWA	1.3	1.4	25		SP	P	40.0	5000	25K	8000	25K		300		40	45			1M		CO
A1217-V2		TWA	1.4	1.4			RC	C				200U	500U	500		175	20	4					
A1125	S	TWA	1.4	1.8		VT	RC	C	5.0	650		150U	1	200		175	25	8			400		CO
TL4		TWA	1.5	3.0		VT	TE	C	6.3	1000	850	70	12W	1300		1K	45			30	600		CO
TWS1	M	TWA	1.5	3.0				C				85	35W	2200			40				600		
HA19		TWA	1.6	2.6			HU	C	6.3	800	120	2	1	500		200	25	15			1000		CO
TWS2	M	TWA	1.6	2.6				C				1	3	550			25	9			400		
HA22		TWA	1.6	2.6		VT	HU	C	6.3	700	400	4	10	500	50	500	30				300		CO
HA39		TWA	1.6	2.6		VT	HU	C	7.0	1200	450	25	1000	1250		1K	30				600		CO
A1217-V4		TWA	1.7	2.0			RC	C				200U	500U	500		175	25	5					
N1002		TWA	1.7	2.3		VT	EE	C	6.3	360	80	200U	1	610		580	20	10		50	450		WC
A1094		TWA	1.7	2.3		VT	RC	C	6.3	1250	320	6	50	600		340	27	30			1M		CO
N1013		TWA	1.7	2.3		VT	EE	C	6.3	360	480	4	200	750		680	24	20			400		WC
6658		TWA	1.7	4.0		VT	1T	C	6.3	2500	1250	50	1000	1550	250		35	30		2K	750		CO
6868		TWA	1.7	4.0		VT	1T	C	6.3	2500	1500	75	10W	1750	250		40	30			1000		CO
A1093		TWA	1.7	2.3		VT	RC	C	6.3	1750	1400	60	15W	2000		2K	27	30			1M		CO

TYPE NUMBER	CODE	KIND	FREQUENCY		DUTY CYCLE	TUNING	MFR	OPERATION	E_f	I_f	MAXIMUM							TYPICAL					
			Min	Max							E_b	I_k	P_o	REFLECTOR COLLECTOR	E_{g_1}	HELIX VOLTAGE	GAIN	NF	PULL FACTOR	BAND WIDTH	MAG FIELD	CAVITY	COUPLING
			G_c	G_c	10^4				v	ma	v	ma	mw	v	v	v	db	db		Mc	gauss		
N1001		TWA	1.7	2.3		VT	EE	C	6.3	1600	1350	43	16W			3K	25				400		WC
314H	#	TWA	1.9	2.1			HP	C	4.0	500	720		2500	290		580	30				IM		CO
DA1		TWA	2.0	4.0		VT	HU	C	6.3	850	650	2		2380		2K	28			150	250		CO
DHA1		TWA	2.0	4.0		VT	HU	C	6.3	750	600	750U		2280		2K	28			600	100		CO
G13		TWA	2.0	4.0		VT	GL	C	6.3	750		750U		2300		2K	28			600	100		CO
HA37		TWA	2.0	4.0		VT	HU	C	6.3	900	50	1		500		500	25	11			750		CO
HA54		TWA	2.0	4.0			HU																
HA68		TWA	2.0	4.0			HU																
G130		TWA	2.0	4.0		VT	GL	C	6.3	750		750U		2300		2K	28			600	100		CO
WJ211		TWA	2.0	4.0			WJ	C	3.5	650	120	60U				185	20	6					CO
HA62		TWA	2.0	4.0		VT	HU	C	6.3	1100	150	2	5	700		500	25	11			810		CO
A1119		TWA	2.0	4.0		VT	RC	C	6.3	580		1	5	700		400	25	10			400		CO
HA1		TWA	2.0	4.0		VT	HU	C	6.3	1000	350	4	10	525		525	30				300		CO
G10		TWA	2.0	4.0		VT	GL	C	6.3	700	400	4	10	450	50	450	30				250		CO
HA29		TWA	2.0	4.0		VT	HU	C	6.3	1000	350	4	10	525		525	30				IM		CO
HA74	S	TWA	2.0	4.0		VT	HU	C	6.3	1100	150	2	10	700		500	25	15			810		CO
G100		TWA	2.0	4.0		VT	GL	C	6.3	700	400	4	10	450	50	450	30				250		CO
G-100P		TWA	2.0	4.0			GL						10				30						
TW956H		TWA	2.0	4.0			SY	C					10								IM		
TW4002	#	TWA	2.0	4.0			SY	C	6.3	1000	500	5	10	50	175	500	40				IM		CO
TW4002M		TWA	2.0	4.0			SY	C	6.3	1350		5	10	200	150	500	35				IM		CO
4017		TWA	2.0	4.0			RC	C	6.3	600	500	2	10	1000	100	1K	28	17			IM		CO
TW4261	#	TWA	2.0	4.0			SY	C	6.3	640		5	10	50		500	35				IM		CO
6493		TWA	2.0	4.0			SY	C	6.3	800		5	10	510	175	510	35				285		CO
A1173		TWA	2.0	4.0		VT	RC	C	6.3	600		2	15	500		475	35	15			IM		CO
4009		TWA	2.0	4.0		VT	RC	C	6.3	1300	220	6	25	700	50	600	35	30			IM		CO
PA4		TWA	2.0	4.0		VT	HU	C	7.0	1200	700	20	100	950	100	950	25				600		CO
PA6		TWA	2.0	4.0		VT	HU	C	7.0	1200	600	20	100	1000	100	1K	25				IM		CO
X258C		TWA	2.0	4.0			IT	C			700	8	250				25						
X258B		TWA	2.0	4.0			IT	C	6.3	1450	600	8	300				35				400		CO
PA3		TWA	2.0	4.0			HU	C	7.0	1200	300	25	1000	900		900	30				1000		WG
PA4		TWA	2.0	4.0	1K	VT	HU	P	7.0	1200	700	50	1000	950	150	950	33				600		CO
PA6		TWA	2.0	4.0	1K	VT	HU	P	7.0	1200	600	50	1000	1000	150	1K	30				IM		CO
G11		TWA	2.0	4.0		VT	GL	C	7.0	800	400	25	1000	1050		950	34	12			500		CO
G12		TWA	2.0	4.0		VT	GL	C	7.0	800	400	35	1000	950	100	950	34				500		CO

CHARACTERISTIC LISTING

TYPE NUMBER	CODE	KIND	FREQUENCY		DUTY CYCLE	TUNING	MFR	OPERATION	E_f	I_f	MAXIMUM							TYPICAL					
			Min	Max							E_b	I_k	P_o	REFLECTOR COLLECTOR	E_{g_1}	HELIX VOLTAGE	GAIN	NF	PULL FACTOR	BAND WIDTH	MAG FIELD	CAVITY	COUPLING
			G_c	G_c	10^4				v	ma	v	ma	mw	v	v	v	db	db		Mc	gauss		
HA30		TWA	2.0	4.0		VT	HU	C	7.0	900	450	20	1000	1100		1K	30				1M		CO
STS78	#	TWA	2.0	4.0		FX	SP	C	6.3	1000	900	30	1000		50		50				575		CO
G110		TWA	2.0	4.0		VT	GL	C	7.0	800	400	25	1000	1050		950	34				500		CO
G-110P		TWA	2.0	4.0			GL						1000										
G120		TWA	2.0	4.0		VT	GL	C	7.0	800	400	35	1000	950	100	950	34	12			500		CO
STS168	#	TWA	2.0	4.0			SP	C	6.3	1000	960	40	1000		35		50	35			1M		CO
4010		TWA	2.0	4.0		VT	RC	C	6.3	1300	600	25	1000	1200	100	1K	35	30			1M		CO
TW4260	#	TWA	2.0	4.0			SY	C	6.3	1100		50	1000	250		1K	30				1M		CO
7072		TWA	2.0	4.0			SY	C	6.3	1100	550	40	1000	975		825	36			2K	1M		CO
HA2		TWA	2.0	4.0		VT	HU	C	7.0	1000	450	25	2000	1100		1K	47	30			600		CO
TW534		TWA	2.0	4.0			SY	P	6.3	1300	500	45	2000	975		825	39			2K	750		CO
L3499	#	TWA	2.0	4.0			LI	C					2000				36				1M		CO
6559	#	TWA	2.0	4.0			SY	C	6.3	1300		65	2000	250	800	1K	37				885		CO
A1097		TWA	2.0	3.5		VT	RC	C	6.3	1900	1300	50	3000	2000		2K	25	30					CO
PA3		TWA	2.0	4.0	1K	VT	HU	P	7.0	1200	600	60	10W	1100		1K	30				1000		CO
PA10		TWA	2.0	4.0	1K	VT	HU	P	7.0	1200	700	60	10W	1100		1K	30				1M		CO
A1166		TWA	2.0	4.0		VT	RC	C	6.3	1800	1300	65	10W	2000		2K	25				1M		CO
A1160		TWA	2.0	4.0	1K	VT	RC	P	6.3	1800	1300	10	15W	2000	100	2K	35				1M		CO
4007		TWA	2.0	4.0	1K		RC	P				28	80W	3000		4K	23				1M		
A1179		TWA	2.0	4.0	1K	VT	RC	P	6.3	2300	4200	35	100W	3000	250	4K	25				1M		CO
STS101	#	TWA	2.0	4.0		FX	SP	C	6.3	2600	5600	380	300W				40				750		CO
MAS-1A		TWA	2.0	4.0	55		HP	P	8.0	4000	8000	2000	1K	8000		7K	40			2K	1M		CO
MAS-1D		TWA	2.0	4.0	50		HP	P	6.5	4300	7000	1400	1K	7000		7K	33				1M		CO
MAS-1E	#	TWA	2.0	4.0	100		HP	P			7000		1K		250		39				1M		CO
STS125	#	TWA	2.0	4.0	200	FX	SP	P	6.3	2100	7500	2000	1K				40				600		CO
304H	S	TWA	2.0	4.0	100		HP	P	6.3	3000	7000	1250	1K				37						CO
311H	S	TWA	2.0	4.0	100		HP	P	6.3	2900	8000	7100	1K		200		36				1M		CO
312H	S#	TWA	2.0	4.0	50		HP	P	6.3	2900	8000	7100	1K		350		36				1M		CO
313H	S	TWA	2.0	4.0	50		HP	P	6.3	4000	7000	1300	1K				36				1M		CO
A1134		TWA	2.0	4.0	20		RC	P				25	1K	7750		8K	30				1M		
D2001		TWA	2.0	4.0	50		1T	P	6.3	5000	7500	1800	1K		100		30						
D2008		TWA	2.0	4.0	50		1T	P	6.3	5200	6800	1800	1K		100		40						
6698		TWA	2.0	4.0	160		SY	P	6.3	2200		2200	1K	10K		10K	35				1160		CO
6825	S	TWA	2.0	4.0	50	VT	IT	P	6.3	5000	7500	1800	1K	7500			30			2K			CO
6826	S	TWA	2.0	4.0	50	VT	1T	P	6.3	5000	7500	1800	1K	750	250		30			2K			CO

CHARACTERISTIC LISTING

TYPE NUMBER	CODE	KIND	FREQUENCY		DUTY CYCLE	TUNING	MFR	OPERATION	E_f	I_f	MAXIMUM							TYPICAL					
			Min	Max							E_b	I_k	P_o	REFLECTOR COLLECTOR	E_{g_1}	HELIX VOLTAGE	GAIN	NF	PULL FACTOR	BAND WIDTH	MAG FIELD	CAVITY	COUPLING
			G_c	G_c	10^4				*v*	*ma*	*v*	*ma*	*mw*	*v*	*v*	*v*	*db*	*db*		*Mc*	*gauss*		
6826A	S	TWA	2.0	4.0	50	VT	IT	P	6.3	5000	7500	1800	1K	750	250		40			2K			CO
STS126	#	TWA	2.0	4.0	20	FX	SP	P	6.3		20K	5000	10K				20						WG
WJ211-1		TWA	2.1	2.4			WJ	C	3.5	650	120	60U		700		185	20	4					CO
A1078-V10		TWA	2.1	2.4			RC	C				150U	50U	400		375	20	8					
6651	S	TWA	2.1	3.3	50		BL	P	6.3	2100	8200	2500	1K			8K	35				1000		CO
HA75	S	TWA	2.2	3.7			HU	C	6.3	1100	75	2	1	525		470	30	8			750		CO
A1105	S	TWA	2.2	2.3		VT	RC	C	5.0	650		150U	1	400		375	20	7			525		CO
WJ211-2		TWA	2.3	2.7			WJ	C	3.5	650	120	60U		700		185	20	4					CO
A1078-V5		TWA	2.3	2.3			RC	C				150U	250U	400		375	22	7					
HA70		TWA	2.3	3.5			HU	C	6.3	1100	75	2	1	525		470	30	7			750		CO
HA76		TWA	2.3	2.9			HU	C	6.3	1100	75	2	1	525		470	30	6			750		CO
A1207-V4		TWA	2.3	2.7			RC	C				200U	1	700		375	20	5					
W10/1D		TWA	2.3	3.6			ST	C	6.3	850	900	6	130	2000		2K	24				250		WG
7857		TWA	2.4	2.7			RC	C				150U	250U	400		375	20						
X324		TWA	2.4	5.1	200		IT	P			4000	3500	1M				33						
WJ211-3		TWA	2.5	3.5			WJ	C	3.5	650	120	60U		700		185	20	4					CO
A1078-V1		TWA	2.5	4.0			RC	C				150U	250U	400		375	20	8					
A1079	S	TWA	2.5	4.0		VT	RC	C	5.0	650		150U	1	400		375	20	8			525		CO
W9/1E		TWA	2.5	4.1			ST	C	6.3	750	500	5	100	650		500	28			2K	600		CO
A1113A		TWA	2.5	3.5		VT	RC	C	6.3	1300	235	6	100	700		600	40				1M		CO
A1229		TWA	2.5	3.8			RC	C				20	1000	1200		1K	50				1M		
W10/2D		TWA	2.6	3.6			ST	C	6.3	850	1500	30	5000	3250		3K	22			1K	350		WG
A1207	S	TWA	2.7	3.5		VT	RC	C				200U	1	700		375	20	4					CO
6861	X	TWA	2.7	3.5		VT	RC	C	5.0	650		150U	1	400		375	25	6			525		CO
TWS3	M	TWA	2.7	4.1				C				1	3	550			25	10			500		
A1113-V2		TWA	2.7	3.5			RC	C				8	100	700		600	25				1M		
A1113-V8		TWA	2.7	3.5			RC	C				8	100	700		600	30				1M		
A1166-A		TWA	2.7	3.5			RC	C				75	10W	2000		2K	25				1M		
VA128	#	TWA	2.7	3.0		VT	VA	P	7.5	2000	15K	4000	10K		200					600	1M		CO
VA125A	#	TWA	2.7	3.0	25	VT	VA	P	7.5	33A	125K	75A	2M				37			300			WG
321H		TWA	2.8	3.2	60		HP	P	11.0	14A	55K	28A	250K				26				1M		WG
QKW750	S	TWA	2.9	3.1	60		RA	P	7.5	8000	36K	13A	60K				20				1200		WG
QKW750A	S	TWA	2.9	3.1	150		RA	P	7.5	8000	36K	13A	60K								1200		CO
VA125B	#	TWA	2.9	3.2	25	VT	VA	P	7.5	33A	125K	75A	2M				37			300			WG
6W86		TWA	3.0	6.8			HI	C	6.3	1000	2500	35	5000	2600	50	2K	23				700		

CHARACTERISTIC LISTING

TYPE NUMBER	CODE	KIND	FREQUENCY		DUTY CYCLE	TUNING	MFR	OPERATION	E_f	I_f	MAXIMUM							TYPICAL						
			Min	Max							E_b	I_k	P_o	REFLECTOR COLLECTOR	E_{g_1}	HELIX VOLTAGE	GAIN	NF	PULL FACTOR	BAND WIDTH	MAG FIELD	CAVITY	COUPLING
			G_c	G_c	10^4				v	ma	v	ma	mw	v	v	v	db	db		Mc	gauss		
6784		TWA	3.1	3.5			WE	C	6.3	370	400	700U	2	1500		700	18	6			500		CO
A1085		TWA	3.3	3.7		VT	RC	C	5.0	650		150U	1	400		375	25	6			525		CO
STC250		TWA	3.3	4.9			SP	C	6.3	1500	2600	40	10W				35	28			IM		WG
TL6		TWA	3.4	4.5			TE	C	6.3	1000	1000	33	6500	1600		1K	38				550		WG
A1078-V3		TWA	3.5	4.1			RC	C				150U	250U	400		375	20	8					
A1088	S	TWA	3.5	4.3		VT	RC	C	5.0	650		150U	1	400		375	20	8			525		CO
A1207-V10		TWA	3.5	4.0			RC	C				200U	1	700		375	25	5					
N1005M	S	TWA	3.6	4.2		VT	EE	C	6.3	360	80	200U	1	700		360	20	9			420		CO
N1024M	S	TWA	3.6	4.2		VT	EE	C	6.3	360	80	200U	1	700		360	20	9			420		CO
LA4-2		TWA	3.6	4.2			MU	C	6.3	400	100	120U	2	700		540	28	8		600			WG
7637	S	TWA	3.6	4.2			MU	C	6.3	750	1200	4	30	1250		1K	30	24		600			WG
N1018M	S	TWA	3.6	4.2		VT	EE	C	6.3	360	350	2	75	750		645	23	21			400		CO
N1025M	S	TWA	3.6	4.2		VT	EE	C	6.3	360	350	2	75	750		645	22	21			400		CO
W7/1D	S	TWA	3.6	4.6			ST	C	6.3	850	850	6	150	1650		2K	24			1K	250		WG
LA4-250	S	TWA	3.6	4.2			MU	C	6.3	750	1600	5	200	1500		2K	31	24		600			WG
4W75		TWA	3.6	4.2		VT	NE	C	6.3	1000	1800	15	2000	3050	50	3K	23				IM		WG
LB4-2		TWA	3.6	4.2			MU	C	6.3	1000	1150	26	2500	1150		1K	35	30		600			WG
W7/2D	S	TWA	3.6	4.2			ST	C	6.3	1000	2000	18	2500	3500		3K	20			1K	350		WG
LW54		TWA	3.6	4.6		VT	LR	C	6.3	1200	1000	45	5000	2000	100	2K	52	30		30	550		WG
W7/3G		TWA	3.6	5.0			ST	C	6.3	850	2600	43	8000	3500		3K	26	25		1K	500		WG
W7/4G		TWA	3.6	5.0			ST	C	6.3	850	2600	43	8000	3500		3K	42	25		1K	500		WG
4W76		TWA	3.6	4.2		VT	NE	C	6.3	1200	2400	35	10W	3240	40	3K	30	27			IM		WG
4W85	M	TWA	3.7	4.2		VT		C	6.3	1500	820	5	200	1200	3	1K	24				400		WG
4W86	M	TWA	3.7	4.2		VT		C	6.3	1400	2000	15	800	2150	22	2K	11				400		WG
4W72A		TWA	3.7	4.2			NE						1500										
4W86A	M	TWA	3.7	4.2		VT		C	6.3	1500	1700	15	1500	2150	10	2K	12				400		WG
N1031		TWA	3.8	4.2			EE	C	6.3	360	500	300U	2	1000	30	600	25	9			550		WG
N1032		TWA	3.8	4.2		VT	EE	C	6.3	360	1700	4	300	1700		1K	38	20		50	550		WG
N1004	S	TWA	3.8	4.2		VT	EE	C	6.3	680	1900	20	4000	2350		2K	24				500		WG
N1023M		TWA	3.8	4.2		VT	EE	C	6.3	680	1900	20	4000	2350		2K	24				370		CO
2E0	M	TWA	3.8	4.2		FX		C	6.3	800		50	5000	1200		1K	37	30		400	600		WG
N1033		TWA	3.8	4.2		VT	EE	C	6.3	680	2500	25	7000	1400		2K	39				550		WG
55340	S	TWA	3.8	4.2			AM	P	6.3	800	1500	55	8000	1500			37				600		WG
STC134	#	TWA	3.9	5.8		FX	SP	C	6.3	1000	1950	70	5000		60		35				900		CO
DA4		TWA	4.0	8.0		VT	HU	C	6.3	1100	450	2		1065		1K	25			1K	250		CO

TYPE NUMBER	CODE	KIND	FREQUENCY		DUTY CYCLE	TUNING	MFR	OPERATION	E_f	I_f	MAXIMUM							TYPICAL					
			Min	Max							E_b	I_k	P_o	REFLECTOR COLLECTOR	E_{g_1}	HELIX VOLTAGE	GAIN	NF	PULL FACTOR	BAND WIDTH	MAG FIELD	CAVITY	COUPLING
			G_c	G_c	10^4				v	ma	v	ma	mw	v	v	v	db	db		Mc	gauss		
HA32		TWA	4.0	8.0			HU	C	5.0	1100	500	2	1	800		700	25	15			1000		CO
HA47		TWA	4.0	8.0			HU	C	6.3	1100	500	2	1	800		700	25	10			1000		CO
Z3028	#	TWA	4.0	8.0			GE	C	6.0	280	400	8000	1	650	25	550	25	10			IM		CO
G20		TWA	4.0	8.0		VT	GL	C	6.3	750	550	2	10	700		700	30				275		CO
HA26	S	TWA	4.0	8.0		VT	HU	C	6.3	1000	450	2	10	800		800	30				400		CO
HA28		TWA	4.0	8.0		VT	HU	C	6.3	750	400	2	10	800	50	800	30				IM		CO
G200		TWA	4.0	8.0		VT	GL	C	6.3	750	550	2	10	700		700	30				275		CO
G-200P		TWA	4.0	8.0			GL						10				30						
A1174		TWA	4.0	7.0		VT	RC	C	6.3	600		2	10	1000		850	35	16			IM		CO
M2203B	#	TWA	4.0	8.0			EC	C	6.3	250	450	3	10	800		800	20			2K	400		CO
M2207A	#	TWA	4.0	8.0			EC	C	6.3	250	450	3	10	800		800	30	25			400		CO
4020		TWA	4.0	7.0			RC	C	6.3	600	1000	2	10	1100	150	1K	28	18			IM		CO
XTW4281		TWA	4.0	8.0			SY	C	6.3	1300		3	10	150	150	1K	35				IM		CO
L3470		TWA	4.0	8.0			LI	C					20								IM		
PA7	S	TWA	4.0	8.0		VT	HU	C	7.0	1200	600	20	100	1600	100	2K	25				1000		CO
PA8	S	TWA	4.0	8.0		VT	HU	C	7.0	1200	600	20	100	1600	150	2K	25				IM		CO
X281		TWA	4.0	8.0			IT	C			850	8	100				25						
A1189		TWA	4.0	7.0			RC	C				12	100	1500		2K	30				IM		
D2006		TWA	4.0	7.0		VT	IT	C	6.3	850	1000	8	100		500		27				750		CO
RXB103401		TWA	4.0	8.0		VT	BE	C	6.3	700	1000	10	200	1100	100	1K	40	30	*1		600		CO
HA35		TWA	4.0	8.0		VT	HU	C	7.0	1200	700	6	800	1500		2K	27				IM		CO
HA6		TWA	4.0	8.0		VT	HU	C	7.0	1300	700	15	1000	1500		1K	30				1100		CO
PA7	S	TWA	4.0	8.0	1K	VT	HU	P	7.0	1200	600	60	1000	1600	150	2K	30						CO
PA8	S	TWA	4.0	8.0	1K	VT	HU	P	7.0	1200	600	60	1000	1600	150	2K	30				IM		CO
G21		TWA	4.0	8.0		VT	GL	C	7.0	750	500	20	1000	1400		1K	32				750		CO
G210		TWA	4.0	8.0		VT	GL	C	7.0	750	500	20	1000	1400		1K	32				750		CO
G-210P		TWA	4.0	8.0			GL						1000										
QK542		TWA	4.0	8.0			RA	C	6.3	1000	1500	40	1000	1500	300		35				IM		CO
X686	#	TWA	4.0	7.0		VT	EI	C					1000				50			2K			CO
A1129		TWA	4.0	5.5		VT	RC	C	6.3	1300	600	18	1000	1700		2K	30				IM		CO
A1205		TWA	4.0	7.0			RC	C				20	1000	2600		2K	30				IM		
XTW4278		TWA	4.0	8.0			SY	C	6.3	1500		50	1000	250	150	3K	30				IM		CO
X328		TWA	4.0	5.9	400		IT	P			2500	65	2000				33						
TW621		TWA	4.0	8.0			SY	C	6.3	1500		50	2000	150	150	3K	35				1150		CO
L3471		TWA	4.0	8.0			LI	C					2000								IM		

CHARACTERISTIC LISTING

TYPE NUMBER	CODE	KIND	FREQUENCY		DUTY CYCLE	TUNING	MFR	OPERATION	E_f	I_f	MAXIMUM							TYPICAL					
			Min	Max							E_b	I_k	P_o	REFLECTOR COLLECTOR	E_{g_1}	HELIX VOLTAGE	GAIN	NF	PULL FACTOR	BAND WIDTH	MAG FIELD	CAVITY	COUPLING
			G_c	G_c	10^4				v	ma	v	ma	mw	v	v	v	db	db		Mc	$gauss$		
X282		TWA	4.0	8.0			IT	C			2700	65	10W				25						
D2007		TWA	4.0	7.0		VT	IT	C	6.3	2300	2800	60	10W		500		27				1200		CO
X283		TWA	4.0	8.0	100		IT	P			9500	2500	1K				25						
D2002		TWA	4.0	7.0	100		IT	P	6.3	5000	10K	2100	1K		100		33						
N1016M		TWA	4.1	7.0		VT	EE	C	6.3	360	100	300U	1	850		600	20	11			450		CO
1E0	M	TWA	4.4	5.0		FX		C	6.3	800		50	5000	1350		1K	34	30		600	600		WG
7537	S	TWA	4.4	5.0			AM	C	6.3	800	1500	55	6000	1500		1K	34	30			600		WG
6W87		TWA	5.0	6.8			HI	C	6.3	400	400	300U	2	1100		800	25	11			600		
6W85		TWA	5.0	6.8			HI	C	6.3	300	1000	3	80	1100		1K	30				600		
A1122		TWA	5.0	6.0		VT	RC	C	6.3	1300	400	10	200	1000		950	30				IM		
STX175	#	TWA	5.0	11.0			SP	C	11.0	1000	2200	20	1000		25		60	32			IM		CO
X778	#	TWA	5.0	11.0			EI	C	6.3	600	3000	30	1000		10		60						
TWC4	M	TWA	5.0	8.2				C				10	2000	2500			40				600		
EM778	#	TWA	5.0	11.0			EI	C	6.3	600	3000	30	2000		100		60	34			IM		CO
LB6-12		TWA	5.0	7.8		VT	MU	C	6.3	1400	3000	45	5000	1750		3K	37						WG
L3528	#	TWA	5.0	11.0			LI	C					5000				33				IM		CO
X319		TWA	5.0	6.0			IT	C			2700	60	10W				27						
A1136		TWA	5.0	6.0	1K	VT	RC	P	6.3	1900	3000	1	50W	4400	300	4K	35				IM		CO
X320		TWA	5.0	6.0	50		IT	P			11K	2000	2K				27						
STC124	#	TWA	5.2	5.8	30	FX	SP	P	6.3	3000	13K	3700	1K				30				1500		CO
7824		TWA	5.4	5.9			SE	C	6.3	770	250	10	50	200	10	900					800		CO
STX264	#	TWA	5.4	10.0			SP	C	11.0	1000	2200	20	1000		25		30	32			IM		CO
A1206		TWA	5.4	11.0			RC	C				25	1000	2600		3K	60				IM		
STC174	#	TWA	5.4	5.9			SP	C	6.3	1000	1850	50	5000		50		55				IM		CO
STC119	#	TWA	5.4	5.9	100		SP	P	6.3	2200	13K	1900	1K				30				1700		CO
STC129	#	TWA	5.4	5.9	30	FX	SP	P	6.3	3000	13K	3700	1K				33				1600		CO
STC118	#	TWA	5.4	5.9	20	FX	SP	P	6.3	2200	15K	3100	2K				28				1700		CO
STC152	#	TWA	5.4	5.9	20		SP	P	6.6	3000	15K	4500	2K				28				1850		CO
306H		TWA	5.4	5.9	200		HP	P	11.0	5900	26K	6500	20K		180		43				IM		WG
VA126		TWA	5.4	5.9			VA	P					3M				35			500			
STX180	#	TWA	5.5	11.0			SP	C	11.0	950	1600	10	500		185		50				IM		CO
6W50		TWA	5.8	6.4		VT	NE	C	6.3	1100	2100	30	10W	3350		3K	30	27			IM		WG
LA6-3		TWA	5.9	7.1			MU	C	6.3	400	400	210U	3	850		750	28	8		1K			WG
QKW746		TWA	5.9	7.4			RA	C	6.3		700	800U	7	700			25	10			IM		WG
LA6-200		TWA	5.9	7.1			MU	C	6.3	1000	1300	6	200	1300		1K	38	24		1K			WG

CHARACTERISTIC LISTING

TYPE NUMBER	CODE	KIND	FREQUENCY		DUTY CYCLE	TUNING	MFR	OPERATION	E_f	I_f	MAXIMUM							TYPICAL					
			Min	Max							E_b	I_k	P_o	REFLECTOR COLLECTOR	E_{g_1}	HELIX VOLTAGE	GAIN	NF	PULL FACTOR	BAND WIDTH	MAG FIELD	CAVITY	COUPLING
			G_c	G_c	10^4				v	ma	v	ma	mw	v	v	v	db	db		Mc	$gauss$		
QKW825		TWA	5.9	7.4			RA	C	6.3	1000	1500	40	3000		300	1K	35				1M		WG
N1029		TWA	5.9	7.2			EE	C	6.3	1200	3000	40	5000	3000	100	3K	43				600		WG
STC236		TWA	5.9	8.2			SP	C	6.3	750	2600	40	10W				35	28			1M		WG
TH9103		TWA	6.0	8.0			CF	C	6.3	1000	600	20	100			1K	35				1200		
TH9102		TWA	6.0	8.0			CF	C	6.3	1000	600	20	1000			2K	30				1200		
8W75		TWA	6.0	7.5		VT	NE	C	6.3	1000	1290	14	2000	3200	50	3K	30				1M		WG
7W86		TWA	6.0	7.0			HI	C	6.3	1000	2600	30	5000	2700	50	3K	25				700		
8W76		TWA	6.0	7.5		VT	NE	C	6.3	1000	2450	26	5000	3500	40	3K	30	23			1M		WG
QK526		TWA	6.4	7.2			RA	C	6.3	350		6		1200	100	1K	23						
QK523		TWA	6.4	7.2			RA	C	6.3	600	2300	30	4000	1000	5	2K							WG
7W25		TWA	6.4	7.2			TO	C	6.3	600	2100	25	5000	2700	15	3K	30				1M		WG
8W86		TWA	6.5	7.8			HI	C	6.3	1000	2500	35	3000	2600	50	2K	33				800		
HA61		TWA	7.0	14.0		VT	HU	C	6.3	1100	500	2	1	1300		1K	25	15			1000		CO
Z3088	#	TWA	7.0	11.0			GE	C	6.3	300	60	650U	5	900		780	25	10			1M		CO
Z3103	#	TWA	7.0	11.0			GE	C	6.3	300	60	700U	5	1000		850	25	10			600		CO
LA9-3	S	TWA	7.0	11.5			MU	C	6.3	500	400	680U	6	1500		1K	27	18		4K			WG
7638	S	TWA	7.0	11.5			MU	C	6.3	500	155	550U	6	1350	70	1K	20	25					WG
M2106A	#	TWA	7.0	11.0			EC	C	6.3	250	800	2	10	1200	50	1K	30	20			1M		CO
M2106B	#	TWA	7.0	11.0			EC	C	6.3	250	800	2	10	1200	50	1K	30	20			1M		CO
M2106C	#	TWA	7.0	11.0			EC	C	6.3	250	800	2	10	1200	50	1K	30	20			1M		CO
M2106G	#	TWA	7.0	11.0			EC	C	6.3	250	800	2	10	1200	50	1K	33	20			1M		CO
M2201A	#	TWA	7.0	12.4			EC	C	6.3	250	450	3	10	1200		1K	25	30			400		CO
M2204A	#	TWA	7.0	12.4			EC	C	6.3	250	450	3	10	1200		1K	15			2K	400		CO
L3266		TWA	7.0	11.0			LI	C	6.3	1100	1500	3	10	1500	100	1K	32				1M		CO
L3611	#	TWA	7.0	11.0			LI	C					20				36				1M		CO
STX76	#	TWA	7.0	11.0		FX	SP	C	10.0	900	1600	10	500		185		50				750		CO
A1188		TWA	7.0	11.0			RC	C				13	1000	3000		3K	33				1M		
4016		TWA	7.0	11.0			RC	C				13	1000	3000		3K	30				1M		
L3236		TWA	7.0	11.0			LI	C	6.3	1100	2500	32	2000	2500	100	2K	30				1M		CO
L3612	#	TWA	7.0	11.0			LI	C					2000				36				1M		CO
STX77	#	TWA	7.0	11.0		FX	SP	C	10.5	1050	5000	60	10W		50		45				1000		CO
L3529	#	TWA	7.0	11.0		VT	LI	C					20W				36				1M		CO
STX104	#	TWA	7.0	8.8		FX	SP	C	6.3	3600	8000	300	100W	2660	150		40				1000		WG
X326		TWA	7.0	11.0	100		IT	P			10K	2300	1M				30						
QKW669		TWA	7.1	8.5			RA	C	6.3	1000	3000	40	13W	3000		3K	30				1M		WG

CHARACTERISTIC LISTING

TYPE NUMBER	CODE	KIND	FREQUENCY		DUTY CYCLE	TUNING	MFR	OPERATION	E_f	I_f	MAXIMUM									TYPICAL			
			Min	Max							E_b	I_k	P_o	REFLECTOR COLLECTOR	E_{g_1}	HELIX VOLTAGE	GAIN	NF	PULL FACTOR	BAND WIDTH	MAG FIELD	CAVITY	COUPLING
			G_c	G_c	10^4				v	ma	v	ma	mw	v	v	v	db	db		Mc	gauss		
8W20		TWA	7.3	7.8			TO	C	6.3	450	150	500U		1200		1K	23	10			700		WG
8W22A		TWA	7.3	7.8			TO	C	6.3	600		30	2000	2600	30	3K	33				700		WG
8W23		TWA	7.3	7.8			TO	C	6.3	600	2100	25	3000	2600	15	3K	32				1M		WG
8W24		TWA	7.3	7.8			TO	C	6.3	600		30	4000	2800	30	3K	32				700		WG
A1181		TWA	7.5	11.2	50		RC	P				5	25W	6500		6K	25				1M		
X267C		TWA	7.5	10.0	1K		1T	P			2500	210	50W				23						
HA60		TWA	8.0	11.0			HU											17					
HA33		TWA	8.0	14.0		VT	HU	C	6.3	1200	500	2		1600		1K	25	15			1000		CO
X231D		TWA	8.0	10.0			1T	C			950	400U	400U				15	12					
TW613		TWA	8.0	11.0			SY	C	6.3	1300	700	1	5	1150		1K	40			3K	500		CO
M2101A	#	TWA	8.0	11.0			EC	C	6.3	250	800	2	5	1200	50	1K	25	10			1000		CO
M2101B	#	TWA	8.0	11.0			EC	C	6.3	250	800	1	5	1200	50	1K	25	15			1M		CO
M2101C	#	TWA	8.0	11.0			EC	C	6.3	250	800	2	5	1200	50	1K	30	10			1000		CO
M2101E	#	TWA	8.0	12.0			EC	C	6.3	250	800	2	5	1200	50	1K	30	10			1000		CO
XTW4282		TWA	8.0	12.0			SY	C	6.3	1300		2	5	150	125	1K	35				1M		CO
Z5259	#	TWA	8.0	12.0			GE	C	6.3	300	60	700U	5	1000		850	25	10			600		WG
HA4		TWA	8.0	12.4		VT	HU	C	6.3	1200	600	2	10	1300	50	1K	30				400		CO
HA20		TWA	8.0	11.0		VT	HU	C	6.3	1200	450	2	10	1300	50	1K	30				1M		CO
A1140		TWA	8.0	12.0		VT	RC	C	6.3	900	500	3	10	1800		2K	40				1M		WG
M2201B	#	TWA	8.0	12.4			EC	C	6.3	250	435	3	10	1200		1K	30	30			400		CO
M2201C	#	TWA	8.0	11.0			EC	C	6.3	250	450	3	10	1200		1K	30	30					CO
M2201D	#	TWA	8.0	12.4			EC	C	6.3	250	450	3	10	1200		1K	30	30					CO
PA5		TWA	8.0	12.4		VT	HU	C	7.0	1200	750	10	50	2300	50	2K	23				1000		CO
X301		TWA	8.0	12.0			1T	C			1300	6	50				30						
F7066		TWA	8.0	12.0		VT	1T	C	6.3	850	1500	5	50		15		30						CO
6867		TWA	8.0	9.6		VT	1T	C	6.3	850	1500	11	100	1600	250		30			2K	1300		CO
PA5		TWA	8.0	12.4	1K	VT	HU	P	7.0	1200	750	50	300	2300	250	2K	30				1000		CO
HA9		TWA	8.0	11.0		VT	HU	C	6.3	1200	1800	20	500	2400	100	2K	27				1000		CO
PA1		TWA	8.0	11.0	300	VT	HU	P	7.0	1400	2600	50	1000	2600	100	3K	30				1000		CO
A1133		TWA	8.0	12.0		VT	RC	C	6.3	850	2000	16	1000	3000		3K	35				1M		WG
M2403A	#	TWA	8.0	12.4			EC	C	6.3	500		27	1000	2300	30	2K	30				1000		CO
4015		TWA	8.0	12.0			RC	C				13	1000	3000		3K	33				1M		
XTW4273		TWA	8.0	12.0			SY	C	6.3	1500		50	1000	250	150	4K	30				1M		CO
TW622		TWA	8.0	11.0			SY	C	6.3	1400	100	40	2000	3500		4K	36			3K	1050		CO
X337		TWA	8.0	12.0	100		1T	P			3700	70	3000				34						

CHARACTERISTIC LISTING

TYPE NUMBER	CODE	KIND	FREQUENCY		DUTY CYCLE	TUNING	MFR	OPERATION	E_f	I_f	MAXIMUM							TYPICAL					
			Min	Max							E_b	I_k	P_o	REFLECTOR COLLECTOR	E_{g_1}	HELIX VOLTAGE	GAIN	NF	PULL FACTOR	BAND WIDTH	MAG FIELD	CAVITY	COUPLING
			G_c	G_c	10^4				v	ma	v	ma	mw	v	v	v	db	db		Mc	$gauss$		
X302		TWA	8.0	12.0			1T	C			3700	60	5000				20						
X306		TWA	8.0	12.0	400		1T	P			3700	60	5000				20						
D2005		TWA	8.0	12.0			1T	C	6.3	2500	4000	50	5000		30		20						
F7067		TWA	8.0	12.0	400	VT	1T	P	6.3	2300	4500	55	5000		100		30				1200		CO
D2004		TWA	8.0	9.6	400		1T	P	6.3	2300	3200	50	10W	3200	10		30						
6996		TWA	8.0	9.6		VT	1T	C	6.3	2300	3400	53	10W	3500	250		30				1300		CO
X296		TWA	8.0	12.0	100		1T	P			10K	2000	1K				28						
TW591		TWA	8.0	10.5	50		SY	P	6.3	1500	8000	1500	1K	8000	380	8K	32			2K	2800		CO
WX4166		TWA	8.0	12.0		VT	WH	C			12K		1K				30						WG
F7068		TWA	8.0	12.0	50	VT	1T	P	6.3	5200	12K	2500	2K		300		35			4K	2400		CO
30TWA1		TWA	X			VT	EB	C					1K				10						
HA23		TWA	8.2	11.0		VT	HU	C	6.3	850	450	2		1800		1K	25	10			900		CO
HA65		TWA	8.2	11.0			HU																
HA66		TWA	8.2	11.0			HU																
HA44	S	TWA	8.2	12.4		VT	HU	C	7.0	1200	450	2	5	1600		1K	25	15			1000		CO
M2101D	#	TWA	8.2	12.4			EC	C	6.3	250	800	2	5	1200	50	1K	25	15			1000		CO
HA10		TWA	8.2	12.4		VT	HU	C	7.0	1200	800	8	100	2300		2K	25				1000		CO
G40		TWA	8.2	12.4		VT	GL	C	7.0	800	800	8	100	2100		2K	24				900		CO
G42		TWA	8.2	12.4		VT	GL	C	7.0	800	400	13	100	2100	75	2K	20				900		CO
HA71		TWA	8.2	12.4		VT	HU	C	7.0	1200	800	8	100	2300		2K	25				1M		CO
G400		TWA	8.2	12.4		VT	GL	C	7.0	800	800	8	100	2100		2K	24				900		CO
G-400P		TWA	8.2	12.4			GL						100										
G420		TWA	8.2	12.4		VT	GL	C	7.0	800	400	13	100	2100	75	2K	20				900		CO
PA9		TWA	8.2	11.0		VT	HU	P					1000				30				1M		CO
HA21		TWA	8.2	11.0			HU	C					1000				30						CO
G42		TWA	8.2	12.4		VT	GL	P	7.0	800	400	13	1000	2100	100	2K	30				900		CO
G420		TWA	8.2	12.4		VT	GL	P	7.0	800	400	13	1000	2100	100	2K	30				900		CO
310H	#	TWA	8.2	11.4	200		HP	P	5.5	2800	11K	1780	1K		150		40				1M		WG
WJ206		TWA	8.4	9.4	100		WJ	P	12.5	4000	28K	4500	10K								1M		WG
319H		TWA	8.4	9.5	100		HP	P	12.0	3500	25K	6500	20K				54				1M		WG
ZM3093	#	TWA	8.5	8.5			GE	C	6.3	300	50	700U	3	1000		850	25	7			600		WG
6891		TWA	8.5	9.6			WE	C					50								1M		WG
7116		TWA	8.5	9.6			WE	C	3.5	860	1600	4	200	1500	10	2K	43	20			1M		WG
L3472		TWA	8.5	9.6			LI	C					10W								1M		
D92		TWA	8.5	9.6	50		1T	P	6.3	2500	10K	2000	1K	10K			30						

CHARACTERISTIC LISTING

TYPE NUMBER	CODE	KIND	FREQUENCY		DUTY CYCLE	TUNING	MFR	OPERATION	E_f	I_f	MAXIMUM							TYPICAL					
			Min	Max							E_b	I_k	P_o	REFLECTOR COLLECTOR	E_{g_1}	HELIX VOLTAGE	GAIN	NF	PULL FACTOR	BAND WIDTH	MAG FIELD	CAVITY	COUPLING
			G_c	G_c	10^4				v	ma	v	ma	mw	v	v	v	db	db		Mc	$gauss$		
D95		TWA	8.5	9.6	50		IT	P	6.3	5000	10K	2000	1K	10K	100		30						
307H	#	TWA	8.5	9.5	100		HP	P	15.0	5000	40K	11A	50K				54						WG
STX105	#	TWA	8.6	11.0		FX	SP	C	6.3	3600	8000	300	100W	2660	150		40				1200		WG
308H	#	TWA	8.6	9.8	100		HP	P	12.2	4000	27K	6400	15K				52				IM		WG
HA82		TWA	10.0	20.0		VT	HU	C	6.3	1400	500	800U	1	1500	25		25				1000		WG
HA49		TWA	10.5	16.0		VT	HU	C	6.3	1200	450	3	3	1300	20	1K	30				IM		WG
11W17		TWA	10.7	11.7		VT	NE	C	6.3	1000	1070	8	700	2500	20	2K	30				IM		WG
LA16-2	S	TWA	11.5	18.0			MU	C	6.3	400	350	400U	3	1850		2K	20	20		6K			WG
7639	S	TWA	11.5	18.0			MU	C	6.3	400	350	450U	3	1850		2K	20	28		6K			WG
HA43		TWA	12.0	18.0			HU	C	6.3	1400	750	800U	1	1300		1K	25	17			1000		WG
HA46		TWA	12.0	18.0			HU	C	6.3	1400	750	800U	1	1300		1K	25	12			1000		WG
HA48		TWA	12.0	16.0			HU	C	6.3	1400	750	800U	1	1300		1K	25	13			1000		WG
HA25		TWA	12.0	18.0			HU	C	6.3	1400	500	800U	5	1300		1K	30				1000		WG
A1215		TWA	12.0	15.0			RC	C				3	10	2200		2K	30				IM		
HA24		TWA	12.4	15.0		VT	HU	C	6.3	1200	400	2	5	1250	50	1K	30				400		CO
Z3031	#	TWA	14.0	18.0			GE	C	6.3	250	50	710U	5	1400		1K	25	14			610		WG
24W80		TWA	22.0	25.0			NE						22								IM		
Z3040	#	TWA	35.0	40.0			GE	C	6.3	700	60	700U	3	2750		2K	20	15			900		WG
WX4353	#	TWA	66.0	73.0	100	MEC	WH	P			19K		1K		200		10				IM		WG
HA34		TWM	2.0	4.0			HU	C	6.3	1000	200	6	2	550		550	5				550		CO
HA16		TWM	8.8				HU	C	7.0	1200	550	25	2	1200		1K	5				600		CO

CHARACTERISTIC LISTING

6. Listing of Similar Tube Types

TYPE NUMBER	KIND	SIMILAR TYPES
*LOU-2	BWO	7267
2J30	MAG	2J31, 2J32, 2J33, 2J34, M510
2J31	MAG	2J30, 2J32, 2J33, 2J34, M510, CV1807
2J32	MAG	2J30, 2J31, 2J33, 2J34, M510, CV1808
2J33	MAG	2J30, 2J31, 2J32, 2J34, M510, CV1809
2J34	MAG	2J30, 2J31, 2J32, 2J33, M510, CV1810
2J36	MAG	M512, CV1828
2J42	MAG	2J42A, F, H, MAG3, JP9-7, JP9-15, CV370, M508, M509, M526, CV3676 6027, 6271, 6817, 6818, 6819, 6820, 6821, 6822, CV3976
*2J48	MAG	TH1725C
2J49	MAG	TH1249
2J50	MAG	TH1250
2J51	MAG	2J51A, OKH713, 7256
2J51A	MAG	2J51
2K25	KLO	KS9-20, KS9-20A, V261, V270, OK420, 723A/8 6311, 6312, 6316 6940
2K26	KLO	6V26A, 6V268, 7V26A, 7V268
2K28	KLO	2K28A, 7078, 6133, 7815
2K28A	KLO	2K28
2K33	KLO	QK306, 6254, 6253
2K45	KLO	TK38, TK58, TK59, TK62, TK69, TK76, TK77, 6116, 6845, 6940
2K50	KLO	TE4, TK4
*HA3	TWA	HA26
KRN3/1	KLO	CV217
MAG3	MAG	2J42, JP9-7, JP9-15, M508, M509, M526, 6027, 6271, 6817, 6818, 6819, 6820, 6821, 6822
*3K20,000	KLO	3K50,000, X566
3K50,000	KLA	3K20,000, X566
LA4-250	TWA	7637
PKX4	KLO	OX122, OX123, OX124
*TE4	KLO	2K50, TK4
#TK4	KLO	2K50, TE4
4J31	MAG	4J32, 4J33, 4J34, 4J35, 4J53, M518A, CV1914, 5586, 5657
4J32	MAG	4J31, 4J33, 4J34, 4J35, 4J53, M518A, 5586, 5657
4J33	MAG	4J31, 4J32, 4J34, 4J35, 4J53, M518A, CV1916, 5586, 5657
4J34	MAG	4J31, 4J32, 4J33, 4J35, 4J53, M518A, CV1897, 5586, 5657
4J35	MAG	4J31, 4J32, 4J33, 4J34, 4J53, M518A, CV1898, 5586, 5657
4J43	MAG	4J44, M536
4J44	MAG	4J43, M536
4J50	MAG	SEE 4J50A
4J50A	MAG	4J50, 4J78, JPD9-250, M502, M511, M523, M529, M539, M546, M547, M549, CV2284, L3030, L3039, L3107, L3151, L3152, L3153, L3154, L3155, L3156, L3209, L3210, 6865, 6874, 7006, 7008, 7110, 7111, 7112
4J52	MAG	SEE 4J52A
4J52A	MAG	M551, TH1452, L3036, L3037, L3103, L3106, L3168, CV3569, 6510, 6543
4J53	MAG	4J31, 4J32, 4J33, 4J34, 4J35, CV513, M518A, 5586, 5657
4J78	MAG	SEE 4J50A
KR6/1	KLO	CV116
KR6/2	KLO	CV237
KR6/3	KLO	CV238
68L6	KLO	ZV1009, 5836, PE7049
68M6	KLO	68M6A, ZV1010, CV3615, 5837, R9585, R9586
68M6A	KLO	68M6, ZV1010, CV3939, 5837, R9585
6V26A	KLO	2K26, 6V268, 7V26A
6V268	KLO	2K26, 6V26A, 7V268
PA-7	TWA	PA-8
W7/1D	TWA	CV2358
W7/20	TWA	CV2188
7V20D	KLO	VA2200
7V26A	KLO	2K26, 6V26A, 7V268
7V268	KLO	2K26, 6V268, 7V26A
JPG8-01	MAG	JPG8-01B, JPT8-01, JPT8-018
JPT8-01	MAG	JPT8-018, JPG8-01, JPG8-018
JPG8-018	MAG	JPG8-01, JPT8-01, JPT8-018
JPT8-018	MAG	JPT8-01, JPG8-01, JPG8-018
MAG8	MAG	CV2380
PA-8	TWA	PA-7
8A9-20	BWO	7635

SIMILAR TYPE LISTING

Type numbers marked with these symbols are not listed in the main tabulations because:

* = Obsolete type

\# = Type number replaced by a similar type, usually a 4-digit number

TYPE NUMBER	KIND	SIMILAR TYPES
JP9-7	MAG	2J42, JP9-7A, JP9-15, MAG3, M508, M509, M526, 6027, 6271, 6817, 6818, 6819, 6820, 6821, 6822,
JP9-7A	MAG	2J42, JP9-7, JP9-15, MAG3, CV370, M508, M509, M526,6027, 6271, 6817, 6818, 6819, 6820, 6821, 6822
JP9-15	MAG	2J42A, JP9-7, MAG3, M508, M509, M562, 6027, 6271, 6817, 6818, 6819, 6820, 6821, 6822,
JP9-80	MAG	JP9-80A
JP9-80A	MAG	JP9-80
*JPD9-250	MAG	SEE 4J50A
JPG9-01	MAG	JPT9-01
JPG9-02	MAG	JPT9-02
JPT9-01	MAG	JPG9-01
JPT9-02	MAG	JPG9-02
KS9-20	KLO	2K25, KS9-20A, V261, V270, OK420, 723A/8, 6311, 6312, 6316
KS9-20A	KLO	2K25, KS9-20, V261, V270, OK420, 723A/8, CV2792, 6311, 6312, 6316
LA9-3	TWA	7638
#MXK10	KLO	VA2038, 6975
*HA11	TWA	HA74
#MXK11	KLO	8L803, 6781
#MXK14	KLO	V260, OK417, 6294, 6310
*HA15	TWA	HA44
8A16-10	8WO	7636
LA16-2	TWA	7639
*MXK16	KLO	V157, V290, 6314
*MXK17	KLO	V153, VA153, 6315
*MXK18	KLO	V151, 8L800, 6316, 6780
HA26	TWA	HA3
*TE30	KLO	TK30, 6541
#TK30	KLO	TE30, 6541
*TE37	KLO	TK37, SRV38
TK37	KLO	TE37, SRV38
SRV38	KLO	TE37, TK37
*TE38	KLO	TK38, SEE 2K45
TK38	KLO	TE38, SEE 2K45
#HA44	TWA	HA15
#TE53	KLO	TK53
TK53	KLO	TE53
V54	KLO	V154, K353, K358
#TE57	8WO	TWO-57
TWO-57	8WO	TE57
*TE58	KLO	TK58, SEE 2K45
#TK58	KLO	TE58, SEE 2K45
V58	KLO	V58C
V58C	KLO	V58
*TE59	KLO	TK59, SEE 2K45
#TK59	KLO	TE59, SEE 2K45
*TE60	KLO	TK60
TK60	KLO	TE60
*TE61	KLO	TK61
#TK61	KLO	TE61
*TE62	KLO	TK62, SEE 2K45
#TK62	KLO	TE62, SEE 2K45
*V63	KLO	K336
*TE66	8WO	TWO-66, TWO-67, TWO-75, TWO-85
TWO-66	8WO	TE66, TWO-67 TWO-75, TWO-85
#TE67	8WO	TWO-67, TWO-66, TWO-75, TWO-85
TWO-67	8WO	TE67, TWO-66, TWO-75, TWO-85
#TE68	KLO	TK68
TK68	KLO	TE68
*TE69	KLO	TK69, SEE 2K45
#TK69	KLO	TE69, SEE 2K45
*TE70	KLO	TK70, 6037
#TK70	KLO	TE70, 6037
HA74	TWA	HA11
*TE75	8WO	TWO-75, TWO-66, TWO-67, TWO-85
TWO-75	8WO	TE75, TWO-66, TWO-67, TWO-85
*TE76	KLO	TK76, SEE 2K45
#TK76	KLO	TE76, SEE 2K45
*TE77	KLO	TK77, SEE 2K45

SIMILAR TYPE LISTING

Type numbers marked with these symbols are not listed in the main tabulations because:

* = Obsolete type

\# = Type number replaced by a similar type, usually a 4-digit number

TYPE NUMBER	KIND	SIMILAR TYPES
#TK77	KLO	TE77, SEE 2K45
#TE78	KLO	TK78
TK78	KLO	TE78
#TE85	8WO	TWO-85, TWO-66, TWO-67, TWO-75
TWO-85	8WO	TE85, TWO-66, TWO-67, TWO-75
C0119	CAR	F4003
OX122	KLO	PKX4, OX123, OX124
OX123	KLO	PKX4, OX122, OX124
OX124	KLO	PKX4, OX122, OX123
SOC150	KLO	SOC217
*V151	KLO	MXK18, 8L800, 6316, 6780
*V153	KLO	MXK17, VA153, 6315
#VA153	KLO	MXK17, V153, 6315
V154	KLO	V54, K353, K358
*V157	KLO	MXK16, V290, 6314
VA1618	8WO	VA169
VA1698	8WO	VA1618
OK172	MAG	6959
MA200	MAG	MA206, MA207, 5789
VA2018	KLO	K351
#VA2038	KLO	MXK10, 6975
MA206	MAG	MA200, MA207, 5789
MA207	MAG	MA200, MA206, 5789
WJ207	HEL	WJ208
WJ208	HEL	WJ207
C0210	CAR	F4005
SOC217	KLO	SOC150
SK220	KLO	VA220, VA222 K345, TH2220
VA220	KLO	SK220, VA222, K345, TH2220
VA2200	KLO	7V200, VA2220
SK222	KLO	VA220, VA222, K345, TH2220
VA222	KLO	SK222, VA220, K345, TH2220
#8L230	MAG	7444
SRX230	KLO	SRX231
V230A/1K	KLO	CV234
SRX231	KLO	SRX230
SRX232	KLO	SRX233
SRX233	KLO	SRX232
V233A/1K	KLO	CV2190
*OK235	MAG	6344
V235A/1K	KLO	CV2221
V237C/1K	KLO	V239C/1K, V241C/1K
V239C/1K	KLO	V237C/1K, V241C/1K
Z239/1G	KLO	CV2187
V240C/1K	KLO	V240C/2K
V240C/2K	KLO	V240C/1K, CV2189
V241C/1K	KLO	V237C/1K, V239C/1K
V246A/1K	KLO	CV228
*OK254	MAG	6518
#V260	KLO	MXK14, OK417, 6294, 6310
*V261	KLO	2K25, KS9-20, KS9-20A, V270, OK420, 723A/8, 6311,6312, 6316
OK264	MAG	7528
*V270	KLO	2K25, KS9-20, KS9-20A, V261, OK420, 723A/8,6311,6312, 6316
*V280	KLO	6313
V290	KLO	MXK16, V157, 6314
*OK297	KLO	6178
*OK299	MAG	6229
*OK2998	MAG	6230
K301	KLO	CV2161
K302	KLO	CV2164
304H	TWA	311H
K305	KLO	CV2263
*K306	KLO	2K33, 6253, 6254
#OK306	KLO	6250
K308	KLO	CV2282
K312	KLO	CV2273
312H	TWA	311H
313H	TWA	312H
C0315	CAR	F4004
316H	8WO	326H

SIMILAR TYPE LISTING

Type numbers marked with these symbols are not listed in the main tabulations because:

* = Obsolete type

\# = Type number replaced by a similar type, usually a 4-digit number

TYPE NUMBER	KIND	SIMILAR TYPES
K324	KLO	CV2304
K335	KLO	CV2343
K336	KLO	V63
*OK338	MAG	QKH883, 6410A, 7529
K345	KLO	SK220, VA220, SK222, VA222, TH2220
K351	KLO	VA2018
K353	KLO	V54, V154, K358
K358	KLO	V54, V154, K353
*OK358	MAG	6517
OK366A	MAG	RK6967A
OK412	KLO	TH2412
*OK417	KLO	MXK14, V260, 6294, 6310
*OK420	KLO	2K25, KS9-20, KS9-20A, V261, V270, 723A/B, 6311,6312, 6316
*OK428	MAG	6406, 6406A
QK470	MAG	7484
*QK483	KLO	RK6573
M501	MAG	M501A, M501B, M507, M519
M501A	MAG	M501, M501B, M507, M519, CV3659, CV3660, CV3661, CV3662
M501B	MAG	M501, M501A, M507, M519,
M502A	MAG	SEE 4J50A
*M503	MAG	CV1866
*M506	MAG	M506A, M545
M506A	MAG	M506, M545, CV3982
M507	MAG	M501, M519
M508	MAG	2J42, MAG3, JP9-7, JP9-15, CV370, M509, M526, CV3676, 6027, 6271, 6817, 6818, 6819, 6820, 6821, 6822,
M509	MAG	2J42, MAG3, JP9-7, JP9-15, M508, M526, CV3976, 6027, 6271, 6818, 6819, 6820, 6821, 6822, 6817
*M510	MAG	2J30, 2J31, 2J33, 2J34,
*M511	MAG	SEE 4J50A
*M512	MAG	2J36, CV1828
M513A	MAG	CV3528
*M518A	MAG	4J31, 4J32, 4J33, 4J34, 4J35, 4J53, CV2744, 5586, 5657
M519	MAG	M501, M507, CV1483, CV1484, CV1485, CV1486,
M521	MAG	CV2376
M523	MAG	SEE 4J50A, CV2412
M525	MAG	CV2362, CV2363, CV2364, CV2365, CV2366, CV2367, CV2368
*M526	MAG	2J42, MAG3, JP9-7, JP9-15, M508, M509, CV3676, 6027, 6271, 6817, 6818, 6819, 6820, 6821, 6822
M529	MAG	SEE 4J50A, CV2426
*M536	MAG	4J43, 4J44
M538A	MAG	CV2473
M539	MAG	SEE 4J50A, CV2425
*M542	MAG	4J31, 4J32, 4J33, 4J34, 4J35, 4J53, M518A, 5586, 5657, CV3611
*M543	MAG	7182
*M545	MAG	M506, M506A
M546	MAG	SEE 4J50A
M547	MAG	SEE 4J50A
M549	MAG	SEE 4J50A, CV2424
*M551	MAG	4J52A, L3036, L3037, L3103, L3106, L3168, CV3569, 6510, 6543
M559	MAG	6027
*X566	KLA	3K20,000, 3K50,000
#QK653	AMA	7577
OK665	MAG	OK666
QK666	MAG	OK665
#QK702	MAG	7630
*7078	KLO	2K28, 6133, 7815
#QKH713	MAG	2J51A, 7256
723A/B	KLO	2K25, KS9-20, KS9-20A, V261, V270, OK420, 6312, 6316
725A	MAG	TH1725A
QKW750	TWA	OKW750A
OKW750A	TWA	OKW750
OKK752	KLO	OKK753
OKK753	KLO	QKK752
OKK758	KLO	QKK759
OKK759	KLO	OKK758
OKS783A	AMA	OKS622
#8L800	KLO	MXK18, V151, 6316, 6780, 8L800A
#8L800A	KLO	8L800, 6316, MXK18, V151, 6316, 6780
#8L803	KLO	MXK11, 6781

SIMILAR TYPE LISTING

Type numbers marked with these symbols are not listed in the main tabulations because:

* = Obsolete type

\# = Type number replaced by a similar type, usually a 4-digit number

TYPE NUMBER	KIND	SIMILAR TYPES
#8L850	TWA	8L851, 6651
#8L851	TWA	8L850, 6651
QKH880	MAG	QKH883, 6410A
QKH883	MAG	6410A, QK338A
QKH1000	MAG	QKH1000A, QKH1001, QKH1001A, 6249A
QKH1000A	MAG	QKH1000, QKH1001, QKH1001A, 6249A
QKH1001	MAG	QKH1000, QKH1000A, QKH1001A, 6249A
QKH1001A	MAG	QKH1000, QKH1000A, QKH1001, 6249A
N1004	TWA	N1023M
N1005M	TWA	N1024M
ZV1009	KLQ	68L6, 5836, PE7049
N1010	8WQ	CV2393
ZV1010	KLQ	68M6, 5837, R9585, R9586
ZV1011	KLQ	5721, 6390
N1018M	TWA	N1025M
N1024M	TWA	N1005M
N1025M	TWA	N1018M
N1034	8WQ	CV2381
THF1050	MAG	6843
A1056	TWA	A1125
A1079	TWA	A1088, A1105, 6861
A1088	TWA	A1079, A1105, 6861
A1105	TWA	A1079, A1088, 6861
A1125	TWA	A1056
A1178A	TWA	4021
A1207	TWA	6861
TH1249	MAG	2J49
TH1250	MAG	2J50
TH1725A	MAG	725A
TH1725C	MAG	2J48
TH2220	KLQ	SK220, VA220, SK222, VA222, K345
TH2412	KLQ	QK412
#L3023	MAG	LT6233
L3030	MAG	SEE 4J50A
L3036	MAG	4J52A, M551, L3037, L3103, L3106, L3168, 6510, 6534
L3037	MAG	4J52A, M551, L3036, 6510, 6543
L3039	MAG	SEE 4J50A
L3083	MAG	L3101A, L31018, L3101C
#L3083A	MAG	L3306
L3101A	MAG	L3083
L31018	MAG	L3083
L3101C	MAG	L3083
L3103	MAG	4J52A, M551, L3036, L3037, L3106, L3168, 6510, 6543
L3105	MAG	L3150, L3186
L3106	MAG	4J52A, M551, L3036, L3037, L3103, L3106A, L3168, 6510, 6543
#L3107	MAG	SEE 4J50A
#L3150	MAG	L3105, L3186
L3151	MAG	SEE 4J50A
L3152	MAG	SEE 4J50A
L3153	MAG	SEE 4J50A
L3154	MAG	SEE 4J50A
L3155	MAG	SEE 4J50A
L3156	MAG	SEE 4J50A
L3168	MAG	4J52A, M551, L3036, L3037, L3103, L3106, 6510, 6543
L3186	MAG	L3105, L3150
L3209	MAG	SEE 4J50A
L3210	MAG	SEE 4J50A
L3306	MAG	L3083A
L3613	MAG	4J50
#F4003	CAR	C0119
#F4004	CAR	CQ315
#F4005	CAR	CQ210
#8M4009	MAG	CV2168, CV2169, CV2170
#4012	MAG	7535
4021	TWA	A1178A
*K-4033	KLQ	SK220A
*K-4034	KLQ	SK220C
*K-4035	KLQ	SK220F
*K-4036	KLQ	SK220Z
*VX4061	MAG	CV2319, CV2320

SIMILAR TYPE LISTING

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TYPE NUMBER	KIND	SIMILAR TYPES
8M4073	MAG	VX4070
#VX4073	MAG	8M4073
#VX4080	MAG	CV2167
#VX4109	MAG	CV2117
#VX4110	MAG	CV2118
#VX4111	MAG	CV2119
#VX4112	MAG	CV2120
#VX4113	MAG	CV2121
#VX4114	MAG	CV2122
#VX4115	MAG	CV2123
8M4119	MAG	VX4119
#VX4119	MAG	8M4119
#VX4122	MAG	CV2313
#VX4130	MAG	CV2333, CV2334, CV2335, CV2336, CV2337
*K-4160	KLO	SK220B
*K-4161	KLO	SK220D
*K-4162	KLO	SK220E
*K-4182	KLO	SK222Z
*K-4183	KLO	SK222A
*K-4184	KLO	SK2228
*K-4185	KLO	SK222C
*K-4186	KLO	SK222D
*K-4188	KLO	SK222E
*K-4189	KLO	SK222F
#VX5023	KLO	R5146
#VX5027	MAG	R6138
#VX5028	KLO	R5222, R9501
#VX5048	KLO	R9559
#VX5063	KLA	R9570
#VX5089	KLA	R9571
R5146	KLO	VX5023
R5222	KLO	VX5028, R9501, CV2346
5586	MAG	4J31, 4J32, 4J33, 4J34, 4J35, 4J53, M518A, M542, 5657
5609	MAG	5609A, 5609V
5609A	MAG	5609
5650	KLO	5981
5657	MAG	4J31, 4J32, 4J33, 4J34, 4J35, 4J53, M518A, M542, 5586
5721	KLO	ZV1011, 6390
5789	MAG	MA200, MA206, MA207, 7619
5836	KLO	68L6, ZV1009, PE7049
5837	KLO	68M6, ZV1010, R9585, R9586
6002	MAG	OK221
R6010	KLO	CV2353
R6015	KLO	CV2354
6027	MAG	SEE 2J42
6037	KLO	TK70, TE70
RK6112	KLO	CV2116
6115	KLO	TK38, TK69, 6115A, 6584
6115A	KLO	TK38, TK69, 6115, 6584
6116	KLO	SEE 2K45
6133	KLO	2K28, 7078, 7815
R6138	MAG	VX5027
6178	KLO	OK297
6229	MAG	OK299
6230	MAG	OK2998
LT6233	MAG	L3023
6249A	MAG	OKH1000, OKH1000A, OKH1001, OKH1001A
6253	KLO	2K33, OK306, 6254
6254	KLO	2K33, OK306, 6253
#6271	MAG	SEE 2J42
#6294	KLO	MXK14, V260, OK417, 6310
6310	KLO	MXK14, V260, OK417, 6294
6311	KLO	SEE 2K25
6312	KLO	SEE 2K25
6313	KLO	V280
6314	KLO	MXK16, V157, V290
6315	KLO	MXK17, V153, VA153
6316	KLO	MXK18, V151, 8L800A, 6780
6344	MAG	OK235
6390	KLO	ZV1011, 5721

SIMILAR TYPE LISTING

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TYPE NUMBER	KIND	SIMILAR TYPES
#6406	MAG	QK428, 6406A
6406A	MAG	QK428, 6406
6410A	MAG	QK338, 7529, QKH883
6510	MAG	SEE 4J52A
6517	MAG	QK358
6518	MAG	QK253
6541	KLQ	TK30, TE30
6543	MAG	6543A, SEE 4J52A
6543A	MAG	6543, SEE 4J52A
RK6573	KLQ	QK483
6584	KLQ	TK38, TK69, 6115
6651	TWA	BL850, BL851
6780	KLQ	MXK18, V151, 8L800A, 6316
6781	KLQ	MXK11, 8L803
#6817	MAG	SEE 2J42
#6818	MAG	SEE 2J42
#6819	MAG	SEE 2J42
#6820	MAG	SEE 2J42
#6821	MAG	SEE 2J42
#6822	MAG	SEE 2J42
6825	TWA	6826, 6826A
6826	TWA	6825, 6826A
6826A	TWA	6825, 6826
#6843	MAG	THF1050
6845	KLO	SEE 2K45
6861	TWA	A1079, A1088, A11Q5
6865A	MAG	SEE 4J50
6874	MAG	SEE 4J50
6940	KLO	SEE 2K45
6959	MAG	QK172
RK6967A	MAG	QK366A
6975	KLQ	MXK10, VA203B, TH22038
7006	MAG	SEE 4J50
7008	MAG	SEE 4J50
#PE7049	KLQ	68L6, ZV1009, 5836
7110	MAG	SEE 4J50
7111	MAG	SEE 4J50
*7112	MAG	SEE 4J50
7138	MAG	SEE 2J42
7139	MAG	SEE 2J42
7140	MAG	SEE 2J42
7141	MAG	SEE 2J42
7142	MAG	SEE 2J42
7143	MAG	SEE 2J42
7182	MAG	M543
7208	MAG	7208A, 72088
7208A	MAG	7208, 72088
72088	MAG	7208, 7208A
7256	MAG	2J51, QKH713
7267	8WQ	LQU-2
7444	MAG	8L230
7484	MAG	QK470
7528	MAG	QK264
7529	MAG	QK338, 6410A
7535	MAG	4012
7537	TWA	55340
7577	AMA	QK653
7619	TWA	5789
7630	MAG	QK702
7635	8WQ	8A9-20
7636	8WQ	8A16-10
7637	TWA	LA4-250
7638	TWA	LA9-3
7639	TWA	LA16-2
7785	8WQ	LQU2C/316H
7815	KLO	2K28, 7078, 6133
R9501	KLQ	VX5028, R5222
R9559	KLQ	VX5048
R9570	KLA	VX5063
R9571	KLA	VX5089

SIMILAR TYPE LISTING

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TYPE NUMBER	KIND	SIMILAR TYPES
R9585	KLO	68M6, ZV1010, 5837, R9586, CV3615
R9586	KLO	68M6, ZV1010, 5837, R9585, CV3939
55340	TWA	7537
#CV116	KLO	KR6/1
#CV160	MAG	CV1495, CV1496, CV1497, CV1498, CV1499
#CV217	KLO	KRN3/1
#CV228	KLO	V246/1K
#CV234	KLO	V230A/1K
#CV237	KLO	KR6/2
#CV238	KLO	KR6/3
CV370	MAG	JP9-7, M508
*CV513	MAG	4J53, M518A
CV1475	MAG	M507, CV1476, CV1477, CV1478
CV1476	MAG	M507
CV1477	MAG	M507
CV1478	MAG	M507
CV1479	MAG	M501
CV1480	MAG	M501
CV1481	MAG	M501
CV1482	MAG	M501
#CV1483	MAG	M519
#CV1484	MAG	M519
#CV1485	MAG	M519
#CV1486	MAG	M519
CV1495	MAG	CV160, M528
CV1496	MAG	CV160, M528
CV1497	MAG	CV160, M528
CV1498	MAG	CV160, M528
CV1499	MAG	CV160, M528
CV1500	MAG	CV160, M528
#CV1747	MAG	M505
#CV1807	MAG	2J31, M510
#CV1808	MAG	2J32, M510
#CV1809	MAG	2J33, M510
#CV1810	MAG	2J34, M510
#CV1828	MAG	2J36, M512
#CV1866	MAG	M503
#CV1897	MAG	4J34, M518A
#CV1898	MAG	4J35, M518A
#CV1914	MAG	4J31, M518A
#CV1916	MAG	4J33, M518A
#CV2116	KLO	RK6112
CV2117	MAG	VX4109
CV2118	MAG	VX4110
CV2119	MAG	VX4111
CV2120	MAG	VX4112
CV2121	MAG	VX4113
CV2122	MAG	VX4114
CV2123	MAG	VX4115
#CV2161	KLO	K301
#CV2164	KLO	K302
CV2167	MAG	VX4080
CV2168	MAG	8M4009
CV2169	MAG	8M4009
CV2170	MAG	8M4009
#CV2187	KLO	Z239/1G
#CV2188	TWA	W7/2D
#CV2189	KLO	V240C/2K
#CV2190	KLO	V233A/1K
#CV2221	KLO	V235A/1K
#CV2263	KLO	K305
#CV2273	KLO	K312
#CV2281	MAG	2J42, M537
#CV2282	KLO	K308
#CV2284	MAG	SEE 4J50A, M502
#CV2304	KLO	K324
CV2313	MAG	VX4122
CV2319	MAG	VX4061
CV2320	MAG	VX4061
CV2333	MAG	VX4130

SIMILAR TYPE LISTING

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TYPE NUMBER	KIND	SIMILAR TYPES
CV2334	MAG	VX4130
CV2335	MAG	VX4130
CV2336	MAG	VX4130
CV2337	MAG	VX4130
#CV2343	KLO	K335
#CV2346	KLO	R5222
#CV2353	KLO	R6010
#CV2354	KLO	R6015
#CV2358	TWA	W7/1D
#CV2362	MAG	M525
#CV2363	MAG	M525
#CV2364	MAG	M525
#CV2365	MAG	M525
#CV2366	MAG	M525
#CV2367	MAG	M525
#CV2368	MAG	M525
#CV2373	MAG	M502A
#CV2376	MAG	M521
#CV2380	MAG	MAG8
#CV2381	8WO	N1034
#CV2393	8WO	N1010
#CV2412	MAG	SEE 4J50, M523
#CV2424	MAG	SEE 4J50A, M549
#CV2425	MAG	SEE 4J50A, M539
#CV2473	MAG	M538A
#CV2744	MAG	M518A
#CV2792	KLO	2K25, KS9-20A
#CV3528	MAG	M513A
#CV3569	MAG	4J52A, M551
#CV3611	MAG	M542, 5586
#CV3615	KLO	68M6, R9585
#CV3659	MAG	M501A
#CV3660	MAG	M501A
#CV3661	MAG	M501A
#CV3662	MAG	M501A
#CV3676	MAG	2J42, M526
#CV3939	KLO	68M6A, R9586
#CV3976	MAG	2J42, M509
#CV3982	MAG	M506A

SIMILAR TYPE LISTING

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7. Other Manufacturers of Coded Tube Types

Tubes having "M" under code indicates that there are other manufacturers of the type or "X" indicates other manufacturers and that the tube has a similar type.

TYPE NUMBER	AMPEREX BENOIX BOMAC	COMPAGNIE FRANCAIS ENGLISH ELECTRIC EMI	GEN. ELECTRIC LTD. GEN. ELECTRIC CO. HITACHI	KOBE KOGYO LITTON MICROW. ASSOC.	MICROW. ELEC. TUBE CO MULLARD NIPPON	PHILIPS RAYTHEON RCA	SFR (SF) SPERRY SYLVANIA	TELEFUNKEN BTH (TH) TOSHIBA	VARIAN YALVO WESTERN ELECTRIC	WESTINGHOUSE
4J34		X								
4J35		X								
4J43		X								
4J44		X								
4J50	X			X		X X	X X		X	
4J50A		XX		X						
4J52	X			XX		X X	X X		X	
4J52A	X	XX		X		X	X		X	
4J53		X								
4J57	X					X				
4J58	X					X				
4J59	X					X				
4J78	X	X		X		X	X		X	
4W85					X					
4W86					X					
4W86A					X					
PKX5	X					X				
5J26	X	X				XX		X	X	
PKX6	X					X				
6BL6						X	X			
6BM6	X					X				
6V26A			X	X						
PKX7	X					X				
7V26A			X	X						
7V26B			X	X						
7V40				X				X		
PKX8	X					X				
JP9-01					X				X	
JP9-7A	X				X	X			X	
JP9-7D	X				X	X			X	
JP9-15	X				X	X			X	
PKX9	X					X				
PKX10	X					X				
DX122	X					X				
DX123	X					X				
DX124	X					X				
DX125	X					X				
DX151	X					X			X	
DX164	X					X				
DX184	X					X				

MANUFACTURER'S LIST

TYPE NUMBER	AMPEREX BENOIX BOMAC	COMPAGNIE FRANCAIS ENGLISH ELECTRIC EMI	GEN. ELECTRIC LTD. GEN. ELECTRIC CO. HITACHI	KOBE KOGYO LITTON MICROW. ASSOC.	MICROW. ELEC. TUBE CO MULLARD NIPPON	PHILIPS RAYTHEON RCA	SFR (SF) SPERRY SYLVANIA	TELEFUNKEN BTH (TH) TOSHIBA	VARIAN YALVO WESTERN ELECTRIC	WESTINGHOUSE
TWS1		X	X							
1EO	X					X				
PKX2	X					X				
TWS2		X	X							
2EO	X					X				
2J30		XX								
2J31		XX								
2J32		XX								
2J33		XX								
2J34		XX								
2J36		X								
2J42	X	X		X X		XX	X	X	X	
2J42H				X		X	X	X		
2J49	X					XX		X	X	
2J50	X					XXX		X	X	
2J51	X					XX			XX	
2J51A	X					XX			X	
2J55	X	X				X	X	X		
2J56	X	X				X				
2K22						X				
2K25	X	X	X	X	X	XX	X	X X	X	
2K26				X	X	XX		X		
2K28		X								
2K29		X				X				
2K41			X							
2K44			X							
2K50	X									
2K54A				X	X					
2K54B				X	X					
2K54C				X	X					
2K56						X				
MAG3		X	X							
PKX3	X					X				
TWS3			X							
PKX4	X					X				
TWC4			X							
4J30						X				
4J31		X								
4J32		X								
4J33		X								

MANUFACTURER'S LIST

TYPE NUMBER	AMPEREX BENDIX BOMAC	COMPAGNIE FRANCAIS ENGLISH ELECTRIC EMI	GEN. ELECTRIC LTD. GEN. ELECTRIC CO. HITACHI	KOBE KOGYO LITTON MICROW. ASSOC.	MICROW ELEC. TUBE CO MULLARD NIPPON	PHILIPS RAYTHEON RCA	SFR(SF) SPERRY SYLVANIA	TELEFUNKEN BTH(TH) TOSHIBA	VARIAN VALVO WESTERN ELECTRIC	WESTINGHOUSE
CV370	×	×	×			×			×	
723A/B	× ×			×		× ×		×	× ×	
725A	×	×	×			× ×			×	
726A		× ×		×		×		×		
726B										
726C		×		× ×		× ×		×	×	
730A										
CV1495			× × ×					× × ×		
CV1496										
CV1497										
CV1498			× × ×					× × ×		
CV1499										
CV1500			× × ×					× × ×		
5586		× ×				× ×	×			
5609	× ×								×	
5650				×		×				
5657	×	× ×				×				
5780										
5789		×		×						
5836						×				
5837						×				
5976				×						
5981							×			
6002							×	×		
6027		×		×						
6115				×						
6116		×								
6177										
6229	× ×			× ×		× ×				
6230	× ×			×		× ×				
6236									× × × × × ×	
6237										
6238										
6239										
6240										
6241									× ×	
6242										
6249A						× × ×				
6310					× ×					
6312										

MANUFACTURER'S LIST

TYPE NUMBER	AMPEREX BENDIX BOMAC	COMPAGNIE FRANCAIS ENGLISH ELECTRIC EMI	GEN. ELECTRIC LTD. GEN. ELECTRIC CO. HITACHI	KOBE KOGYO LITTON MICROW. ASSOC.	MICROW ELEC. TUBE CO MULLARD NIPPON	PHILIPS RAYTHEON RCA	SFR(SF) SPERRY SYLVANIA	TELEFUNKEN BTH(TH) TOSHIBA	VARIAN VALVO WESTERN ELECTRIC	WESTINGHOUSE
6314					× × ×					
6315										
6316						× ×		×		
6410A										
6551	×						×			
6589	×					×		×	× ×	
6781	×									
6845	×					×				
6861	×	×								
6940	×					×				
6972	×					×			× ×	×
6975		×								
7008							×			
7028	× ×					× ×				
7090	× ×									
7091	× ×					× ×			× ×	
7093	× ×									
7110							×			
7111										
7112										
7182		×				×				× × ×
7537	× ×					× ×			× × × ×	
7292	× ×					× ×			× × × ×	
55029	× ×					× ×			× × × ×	
55030	× ×					× ×			× × × ×	
55031	× ×					× ×			× × × ×	
55032	× ×					× ×			× × × ×	
55334	× ×					× ×			× × × ×	
55335	× ×					× ×			× × × ×	
55340	× ×					× ×			× × × ×	
55395	×					×			×	

MANUFACTURER'S LIST

THE NATIONAL BUREAU OF STANDARDS

Functions and Activities

The functions of the National Bureau of Standards are set forth in the Act of Congress, March 3, 1901, as amended by Congress in Public Law 619, 1950. These include the development and maintenance of the national standards of measurement and the provision of means and methods for making measurements consistent with these standards; the determination of physical constants and properties of materials; the development of methods and instruments for testing materials devices, and structures; advisory services to government agencies on scientific and technical problems; invention and development of devices to serve special needs of the Government; and the development of standard practices, codes, and specifications. The work includes basic and applied research, development, engineering, instrumentation, testing, evaluation, calibration services, and various consultation and information services. Research projects are also performed for other government agencies when the work relates to and supplements the basic program of the Bureau or when the Bureau's unique competence is required. The scope of activities is suggested by the listing of divisions and sections on the inside of the back cover.

Publications

The results of the Bureau's work take the form of either actual equipment and devices or published papers. These papers appear either in the Bureau's own series of publications or in the journals of professional and scientific societies. The Bureau itself publishes three periodicals available from the Government Printing Office: The Journal of Research, published in four separate sections, presents complete scientific and technical papers; the Technical News Bulletin presents summary and preliminary reports on work in progress; and Basic Radio Propagation Predictions provides data for determining the best frequencies to use for radio communications throughout the world. There are also five series of nonperiodical publications: Monographs, Applied Mathematics Series, Handbooks, Miscellaneous Publications, and Technical Notes.

Information on the Bureau's publications can be found in NBS Circular 460, Publications of the National Bureau of Standards ($1.25) and its Supplement ($1.50), available from the Superintendent of Documents, Government Printing Office, Washington 25, D.C.

THE NATIONAL BUREAU OF STANDARDS

The scope of activities of the National Bureau of Standards at its major laboratories in Washington, D.C., and Boulder, Colorado, is suggested in the following listing of the divisions and sections engaged in technical work. In general, each section carries out specialized research, development, and engineering in the field indicated by its title. A brief description of the activities, and of the resultant publications, appears on the inside of the front cover.

WASHINGTON, D.C.

Electricity and Electronics. Resistance and Reactance. Electron Devices. Electrical Instruments. Magnetic Measurements. Dielectrics. Engineering Electronics. Electronic Instrumentation. Electrochemistry.

Optics and Metrology. Photometry and Colorimetry. Optical Instruments. Photographic Technology. Length. Engineering Metrology.

Heat. Temperature Physics. Thermodynamics. Cryogenic Physics. Rheology. Molecular Kinetics. Free Radicals Research.

Atomic Physics. Spectroscopy. Radiometry. Mass Spectrometry. Solid State Physics. Electron Physics. Atomic Physics.

Radiation Physics. Neutron Physics. Radiation Theory. Radioactivity. X-ray. High Energy Radiation. Nucleonic Instrumentation. Radiological Equipment.

Chemistry. Organic Coatings. Surface Chemistry. Organic Chemistry. Analytical Chemistry. Inorganic Chemistry. Electrodeposition. Molecular Structure and Properties of Gases. Physical Chemistry. Thermochemistry. Spectrochemistry. Pure Substances.

Mechanics. Sound. Mechanical Instruments. Fluid Mechanics. Engineering Mechanics. Mass and Scale. Capacity, Density, and Fluid Meters. Combustion Controls.

Organic and Fibrous Materials. Rubber. Textiles. Paper. Leather. Testing and Specifications. Polymer Structure. Plastics. Dental Research.

Metallurgy. Thermal Metallurgy. Chemical Metallurgy. Mechanical Metallurgy. Corrosion. Metal Physics.

Mineral Products. Engineering Ceramics. Glass. Refractories. Enameled Metals. Constitution and Microstructure.

Building Technology. Structural Engineering. Fire Protection. Air Conditioning, Heating, and Refrigeration. Floor, Roof, and Wall Coverings. Codes and Safety Standards. Heat Transfer. Concreting Materials.

Applied Mathematics. Numerical Analysis. Computation. Statistical Engineering. Mathematical Physics.

Data Processing Systems. SEAC Engineering Group. Components and Techniques. Digital Circuitry. Digital Systems. Analog Systems. Applications Engineering.

- Office of Basic Instrumentation.
- Office of Weights and Measures.

BOULDER, COLORADO

Cryogenic Engineering. Cryogenic Equipment. Cryogenic Processes. Properties of Materials. Gas Liquefaction.

Radio Propagation Physics. Upper Atmosphere Research. Ionosphere Research. Regular Prediction Services. Sun-Earth Relationships. VHF Research. Radio Warning Services. Airglow and Aurora. Radio Astronomy and Arctic Propagation.

Radio Propagation Engineering. Data Reduction Instrumentation. Radio Noise. Tropospheric Measurements. Tropospheric Analysis. Propagation-Terrain Effects. Radio-Meteorology. Lower Atmospheric Physics.

Radio Standards. High-Frequency Electrical Standards. Radio Broadcast Service. Radio and Microwave Material. Atomic Frequency and Line Standards. Electronic Calibration Center. Microwave Circuit Standards.

Radio Communication and Systems. Low Frequency and Very Low Frequency Research. High Frequency and Very High Frequency Research. Modulation Systems. Antenna Research. Navigation Systems. Systems Analysis. Field Operations.

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