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This model number is subject to the jurisdiction of the U.S. Department of Commerce.

MODEL NO. MEC 5599

TRI-BAND

TYPICAL OPERATING CONDITIONS			POWER SUPPLY REQUIREMENTS		
ELEMENT	VOLTAGE	CURRENT	VOLTAGE MIN	VOLTAGE MAX	CURRENT MAX
HEATER	-6.0 Vdc	1.3 A	-5.9 Vdc	-6.7 Vdc	1.5 A
HELIX	W/ RF	GROUND	GROUND	GROUND	22 mA
	W/O RF				
FE ON	-6 Vdc	0.1 mA	0	-10 Vdc	1 mA
FE OFF	-1400 Vdc	0.5 mA	-1400 Vdc	-1600 Vdc	1 mA
CATHODE (Ek)	-5.0 kV	220 mA	-4.6 kV	-5.2 kV	220 mA
COLLECTOR W/ RF	#1 4.0 kV	65.0 mA	80% x Ek ±2%		100 mA
	#2 2.0 kV	140 mA	40% x Ek ±2%		220 mA

NOTE 1: CATHODE VOLTAGE IS MEASURED WITH RESPECT TO GROUND.  
 NOTE 2: HEATER, COLLECTOR, GRID OR FOCUS ELECTRODE (FE) VOLTAGES ARE MEASURED WITH RESPECT TO CATHODE.

RF PERFORMANCE			
FREQ GHz	TYP SAT POWER OUTPUT (WATTS)	MIN SPEC POWER OUTPUT (WATTS)	TYP GAIN AT SPEC POWER dB
5.850	130	112 *	41
6.000	140	112	41
6.425	160	112	41
7.900	199	158 **	41
8.200	190	158	41
8.400	181	158	41
14.000	95	91 ***	40
14.250	95	91	40
14.500	100	91	40

SELECTED PERFORMANCE	TYPICAL	SPECIFIED
INPUT VSWR	2.95:1	3.0:1
OUTPUT VSWR	2.1:1	2.3:1
MAXIMUM DUTY	—	CW
FE CAPACITANCE	46 pF	65 pF
MIN HARMONIC SEPARATION	-5/-10/-20 dBc	-3*/-8**/-12*** dBc
NOISE POWER DENSITY	-19 dBm/MHz	-17 dBm/MHz
PRIME POWER	640 W	660 W
TEMPERATURE RANGE	-40° to 85 °C	—

TYPICAL POWER OUTPUT IS SHOWN TO ILLUSTRATE CAPABILITY. GAIN IS WITH EQUALIZER. REQUIRES INDEPENDENT (Ek) IN EACH BAND.

SPECTRAL REGROWTH: X BAND IS USING A TELEDYNE APPROVED LINEARIZER

FREQUENCY	MINIMUM LINEAR POWER	MODULATION	LEVEL@1SYMBOL RATE
5.85 GHz	42W	QPSK	-26dBc
6.425 GHz	50W	QPSK	-26dBc
7.9 GHz	43W	OQPSK	-30dBc
8.4 GHz	32W	OQPSK	-30dBc
13.75 GHz	45W	QPSK	-26dBc
14.5 GHz	44W	QPSK	-26dBc

An ISO 9001:2000 Quality System Certified Company

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