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MODEL NO. MTG 5338X (FE)

TRI-BAND

TYPICAL OPERATING CONDITIONS			POWER SUPPLY REQUIREMENTS		
ELEMENT	VOLTAGE	CURRENT	VOLTAGE MIN	VOLTAGE MAX	CURRENT MAX
HEATER	-5.8 Vdc	1.62 A	-5.8 Vdc	-6.8 Vdc	2 A
HELIX	W/ RF	GROUND	GROUND		10 mA
	W/O RF				
FE ON	-6 Vdc	0.1 mA	0	-10 Vdc	1 mA
FE OFF	-1300 Vdc	0.1 mA	-1300 Vdc	-1500 Vdc	1 mA
CATHODE (Ek)	-10.95 kV	340 mA	-10.1 kV	-11.1 kV	340 mA
COLLECTOR W/ RF	#1 6.68 kV	80 mA	61% x Ek ±2%		125 mA
	#2 4.38 kV	256 mA	40% x Ek ±2%		340 mA

RF PERFORMANCE			
FREQ GHz	TYP SAT POWER OUTPUT (WATTS)	MIN SPEC POWER OUTPUT (WATTS)	TYP GAIN AT SPEC POWER dB
5.850	400	350 *	37
6.000	400	350	37
6.425	400	350	37
7.900	640	600 **	46
8.200	635	600	46
8.400	630	600	46
14.000	400	350***	48
14.250	400	350	48
14.500	400	350	48

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.

SELECTED PERFORMANCE	TYPICAL	SPECIFIED
INPUT VSWR	2.3:1	2.5:1
OUTPUT VSWR	1.8:1	2:1
MAXIMUM DUTY	—	CW
FE CAPACITANCE	50 pF	65 pF
MIN HARMONIC SEPARATION	-5/-8/-20 dBc	-3*/-5**/-15*** dBc
NOISE POWER DENSITY	-14 dBm/MHz	-12 dBm/MHz
PRIME POWER	1700 W	1750 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	280W	QPSK	-26dBc
6.425 GHz	280W	QPSK	-26dBc
7.9 GHz	380W	OQPSK	-30dBc
8.4 GHz	380W	OQPSK	-30dBc
13.75 GHz	125W	QPSK	-26dBc
14.5 GHz	125W	QPSK	-26dBc

An ISO 9001:2000 Quality System Certified Company

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