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

MODEL NO. MEC 5499

13.75 to 14.5 GHz

TYPICAL OPERATING CONDITIONS			POWER SUPPLY REQUIREMENTS		
ELEMENT	VOLTAGE	CURRENT	VOLTAGE MIN	VOLTAGE MAX	CURRENT MAX
HEATER	-6.3 Vdc	1.3 A	-6.0 Vdc	-6.6 Vdc	1.5 A
HELIX	W/RF	GROUND	GROUND	GROUND	12 mA
	W/O RF				
CATHODE (Ek)	-6.4 kV	235 mA	-5.2 kV	-6.5 kV	300 mA
COLLECTOR #1	W/RF	3.1 kV	48% X Ek ±2%	165 mA	
	W/O RF				150 mA
COLLECTOR #2	W/RF	1.47 kV	23% X Ek ±2%	290 mA	
	W/O RF				80 mA
		195 mA			

RF PERFORMANCE			
FREQ GHz	TYP SAT POWER OUTPUT (WATTS)	MIN SPEC POWER OUTPUT (WATTS)	TYP GAIN AT SPEC POWER dB
13.75	210	200	55
14.0	210	200	55
14.1	210	200	54
14.2	210	200	54
14.3	210	200	53
14.4	210	200	53
14.5	210	200	53

NOTE 1: CATHODE VOLTAGE IS MEASURED WITH RESPECT TO GROUND.

NOTE 2: HEATER AND COLLECTOR ARE MEASURED WITH RESPECT TO CATHODE.

TYPICAL POWER OUTPUT IS SHOWN TO ILLUSTRATE CAPABILITY.

SELECTED PERFORMANCE	TYPICAL	SPECIFIED
INPUT VSWR	1.3:1	1.6:1
OUTPUT VSWR	1.4:1	1.6:1
MAXIMUM DUTY	—	CW
NOISE POWER DENSITY	-30 dBm/MHz	-26 dBm/MHz
PRIME POWER	615 W	649 W
TEMPERATURE RANGE	-30° to 75 °C	—

SPECTRAL REGROWTH:

FREQUENCY	MIN LINEAR POWER	MODULATION	LEVEL@1SYMBOL RATE
13.75 GHz	90W	QPSK	-26dBc
14.5 GHz	90W	QPSK	-26dBc

*An ISO 9001:2000 Quality System  
 Certified Company*

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