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MODEL NO. MEC 5413 (GR)  
 MEC 5414 (FE)  
 6.0 to 18.0 GHz

TYPICAL OPERATING CONDITIONS			POWER SUPPLY REQUIREMENTS		
ELEMENT	VOLTAGE	CURRENT	VOLTAGE MIN	VOLTAGE MAX	CURRENT MAX
HEATER	-6.3 Vdc	1.6 A	-6.0 Vdc	-6.6 Vdc	2 A
HELIX	W/ RF	GROUND	GROUND		
	W/O RF				
		7 mA			15 mA
		1 mA			
FE ON	-50 Vdc	0.1 mA	0	-75 Vdc	1 mA
FE OFF	-1300 Vdc	0.1 mA	-1500 Vdc	-1700 Vdc	1 mA
GRID ON	180 Vdc	1 mA	125 Vdc	250 Vdc	10 mA
GRID OFF	-200 Vdc	0.1 mA	-200 Vdc	-500 Vdc	1 mA
CATHODE (Ek)	-10.3 kV	270 mA	-10 kV	-10.5 kV	300 mA
COLLECTOR W/ RF	#1	5.36 kV	45 mA	52% x Ek ± 2%	100 mA
	#2	3.71 kV	218 mA	36% x Ek ± 2%	300 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.

SELECTED PERFORMANCE	TYPICAL	SPECIFIED
INPUT VSWR	2:1	2.5:1
OUTPUT VSWR	2:1	2.25:1
MAXIMUM DUTY	—	CW
FE CAPACITANCE	50 pF	65 pF
GRID CAPACITANCE	37 pF	50 pF
MIN HARMONIC SEPARATION	-5.5 dBc	-5 dBc *
NOISE POWER DENSITY	-15 dBm/MHz	-10 dBm/MHz
PRIME POWER	1132 W	1400 W
TEMPERATURE RANGE	-40° to 85°C	—

RF PERFORMANCE			
FREQ GHz	TYP SAT POWER OUTPUT (WATTS)	MIN SPEC POWER OUTPUT (WATTS)	TYP GAIN AT SPEC POWER dB
6.0	225	200 *	35
7.0	245	200	38
8.0	245	200	41
9.0	245	200	43
10.0	225	200	45
11.0	250	200	46
12.0	250	200	46
13.0	250	200	46
14.0	250	200	45
15.0	245	200	43
16.0	240	200	41
17.0	230	200	38
18.0	220	200	35

TYPICAL POWER OUTPUT IS SHOWN TO ILLUSTRATE CAPABILITY.

GAIN IS WITH EQUALIZER.

An ISO 9001:2000 Quality System  
 Certified Company

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