



11361 Sunrise Park Drive, Rancho Cordova, Calif. 95742-6587  
 Telephone (916) 638-3344 Fax (916) 636-7453

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MODEL NO. MEC 5411 (GR)  
 MEC 5412 (FE)  
 6.5 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	GROUND	15 mA
	W/O RF				
FE ON	-25 Vdc	0.1 mA	0	-75 Vdc	1 mA
FE OFF	-1300 Vdc	0.1 mA	-1500 Vdc	-1700 Vdc	1 mA
GRID ON	200 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	290 mA	-10 kV	-10.5 kV	300 mA
COLLECTOR W/ RF	#1 5.36 kV	50 mA	52% x Ek ± 2%		100 mA
	#2 3.71 kV	232 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	-7 dBc	-5 dBc *
NOISE POWER DENSITY	-15 dBm/MHz	-10 dBm/MHz
PRIME POWER	1221 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
6.5	310	300 *	35
7.0	325	300	38
8.0	350	300	41
9.0	350	300	43
10.0	325	300	45
11.0	350	300	45
12.0	375	300	45
13.0	375	300	45
14.0	375	300	45
15.0	365	300	43
16.0	350	300	41
17.0	340	300	38
18.0	325	300	35

TYPICAL POWER OUTPUT IS SHOWN TO ILLUSTRATE CAPABILITY.

GAIN IS WITH EQUALIZER.

An ISO 9001:2000 Quality System  
 Certified Company

01/06