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MODEL NO. MTI 3948B

8.8 to 10.5 GHz

TYPICAL OPERATING CONDITIONS			POWER SUPPLY REQUIREMENTS		
ELEMENT	VOLTAGE	CURRENT	VOLTAGE MIN	VOLTAGE MAX	CURRENT MAX
HEATER	-6.3 Vdc	2.2 A	-6.1 Vdc	-6.5 Vdc	2.5 A
HELIX	W/ RF	GROUND	GROUND		500 mApk
	W/O RF				
		75 mApk			
GRID ON	250 Vpk	0	100 Vpk	300 Vpk	30 mApk
GRID OFF	-300 Vdc	0	-300 Vdc	-500 Vdc	0.5 mA
CATHODE (Ek)	-14.2 kV	2.3 Apk	-14.0 kV	-15 kV	2.5 Apk
COLLECTOR W/ RF	#1	11.7 kV	0.4 Apk	80% X Ek ±2%	
	#2	8.5 kV	1.5 Apk	58% X Ek ±2%	

NOTE 1: CATHODE VOLTAGE IS MEASURED WITH RESPECT TO GROUND.  
 NOTE 2: HEATER, COLLECTOR AND GRID VOLTAGES ARE MEASURED WITH RESPECT TO CATHODE.

SELECTED PERFORMANCE	TYPICAL	SPECIFIED
INPUT VSWR	1.5:1	2.0:1
OUTPUT VSWR	1.5:1	1.8:1
MAXIMUM DUTY	—	5%
MAXIMUM PULSEWIDTH	—	50 μsec
MIN HARMONIC SEPARATION	-12 dBc	-10 dBc *
NOISE POWER DENSITY	-14 dBm/MHz	-10 dBm/MHz
PRIME POWER	1179 W	1300 W
TEMPERATURE RANGE	—	-54° to 85 °C

RF PERFORMANCE			
FREQ GHz	TYP SAT POWER OUTPUT (WATTS)	MIN SPEC POWER OUTPUT (WATTS)	TYP GAIN AT SPEC POWER dB
8.8	7400	6800	48
8.9	7800	7400	49
9.0	8300	8000 *	50
9.2	8350	8000	50
9.4	8400	8000	50
9.6	8500	8000	50
9.8	8600	8000	51
10.0	8700	8000	51
10.1	8700	8000	51
10.2	8700	8000	51
10.3	8300	7800	50
10.4	8200	7500	50
10.5	8200	7500	49

TYPICAL POWER OUTPUT IS SHOWN TO ILLUSTRATE CAPABILITY.

GAIN IS WITHOUT EQUALIZER.  
 HIGHER GAIN IS AVAILABLE WITH SSA.

An ISO 9001:2000 Quality System  
 Certified Company

12/08