



MwT-102G

2-18 GHz

MMIC AMPLIFIER MODULE

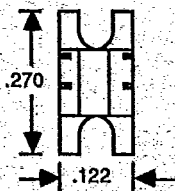
MICROWAVE TECHNOLOGY

4268 Solar Way Fremont, CA 94538 415-651-6700 FAX 415-651-2208

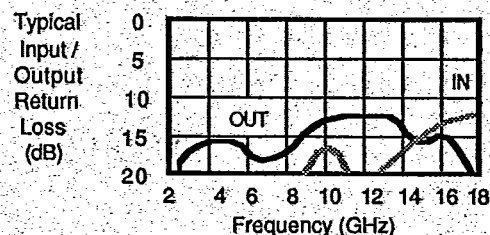
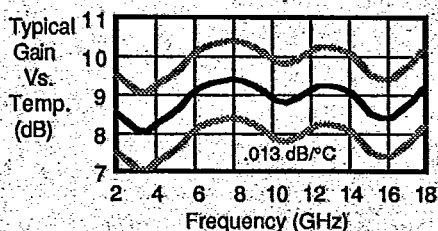
MICROWAVE TECHNOLOGY

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T-74-13-01



- 64 dB TYPICAL GAIN PER INCH
- 1.9:1 TYPICAL VSWR
- 30 dB TYPICAL REVERSE ISOLATION
- ± 0.5 dB TYPICAL OUTPUT POWER FLATNESS
- -16 dBc TYPICAL SECOND HARMONICS AT Psat
- SINGLE SUPPLY BIAS



ELECTRICAL SPECIFICATIONS (Ta=25°C, VDD=8.0V, 2-18 GHz)

MwT-102G-GFP (Model Number)

GAIN (dB)			GAIN FLATNESS (±dB)			P1dB (dBm)			IDD (mA)	
"G"	MIN	TYP	"F"	TYP	MAX	"P"	MIN	TYP	TYP	MAX
-6	6	7	-7	0.6	0.75	-1	11	12	35	45
-7	7	8	-1	0.75	1.0	-3	13	14	45	60
						-5	15	16	60	100
						-7	17*	18	100	140

Example: MwT-102G-713 = 7 dB Gain; ± 1.0 dB Gain Flatness; +13 dBm P1dB *VDD 10 volts DC

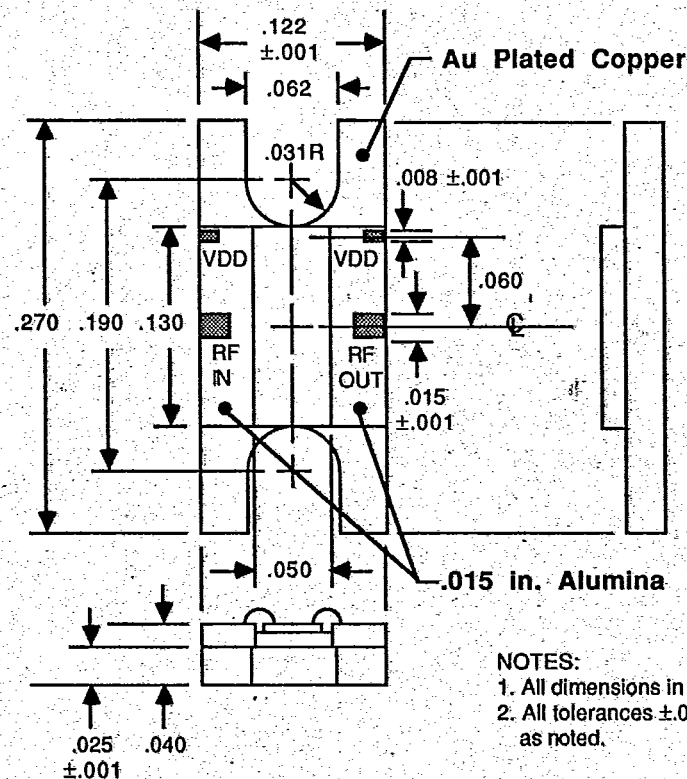
SYMBOL	PARAMETERS	UNITS	MIN	TYP	MAX
FREQ	Frequency Range	GHz	2.0		18.0
VSWR, IN	Input VSWR	—		1.9:1	2.2:1
VSWR, OUT	Output VSWR	—		1.7:1	2.0:1
NF	Noise Figure	dB		7.5	8.5
ISO	Reverse Isolation	dB		30	
RTH	Thermal Resistance	°C/W		65	

NOTES:

1. Operating temperature range is -55 °C to +105 °C
2. MicroWave Technology reserves the right to ship modules with gain and/or power above the typical specification of the model number.
3. All modules are serialized and shipped with data measured at 25 °C. Data includes swept small signal gain, swept input and output return loss, noise figure in 1 GHz increments, and P1dB in 1 GHz increments.
4. Test fixtures are available. Contact MwT for details.

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OUTLINE DRAWING



NOTES:

1. All dimensions in inches.
2. All tolerances $\pm .002$ except as noted.

CONSTRUCTION

The 15 mil alumina substrates are brazed onto the 25 mil copper carrier using AuGe preform. The GaAs MMIC (standard 5 mil thickness) is attached to the copper carrier using a AuSn preform. All capacitors are attached using AuSn preforms. The flanges are designed to accommodate 0-80 socket head screws. The modules are mechanically and electrically designed to be directly cascaded.