



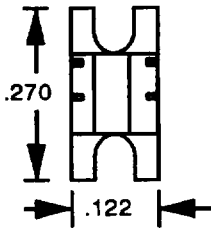
# MwT-101G

## 2-8GHz

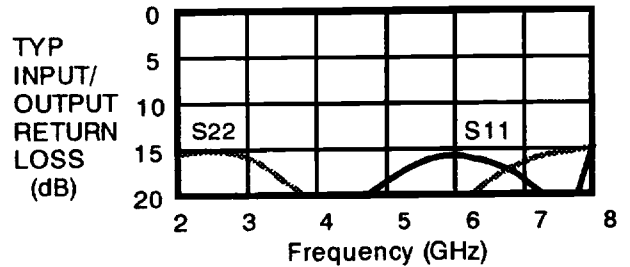
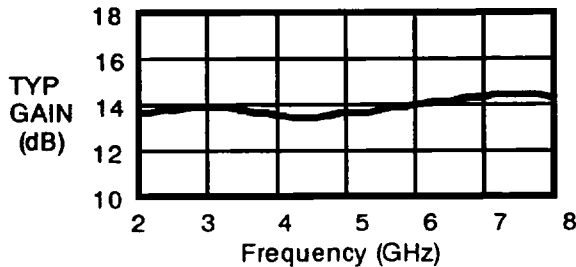
### MMIC AMPLIFIER MODULE

MICROWAVE TECHNOLOGY

4268 Solar Way Fremont, CA 94538 510-651-6700 FAX 510-651-2208



- 14 dB TYPICAL GAIN
- 1.5:1 TYPICAL INPUT AND OUTPUT VSWR
- 30 dB TYPICAL REVERSE ISOLATION
- ±0.6 dB TYPICAL OUTPUT POWER FLATNESS
- -16 dBc TYPICAL SECOND HARMONICS AT Psat
- SINGLE SUPPLY BIAS



### ELECTRICAL SPECIFICATIONS (Ta = 25°C, VDD = 8.0V, 2 - 8 GHz)

#### MwT - 101G - GFP (Model Number)

GAIN (dB)			GAIN FLATNESS (±dB)			P1dB (dBm)			IDD (mA)		
"G"	MIN	TYP	"F"	TYP	MAX	"P"	MIN	TYP	VDD	TYP	MAX
-1	11	12	-1	0.6	1.00	-0	8	10	8	40	50
-3	13	14	-5	0.3	0.50	-1	11	12	8	40	50
						-3	13	14	8	50	65
						-6	16	17	10	70	100

Example: MwT- 101G -353 = 13 dB Gain, ±0.5 dB Gain Flatness, +13 dBm P1dB

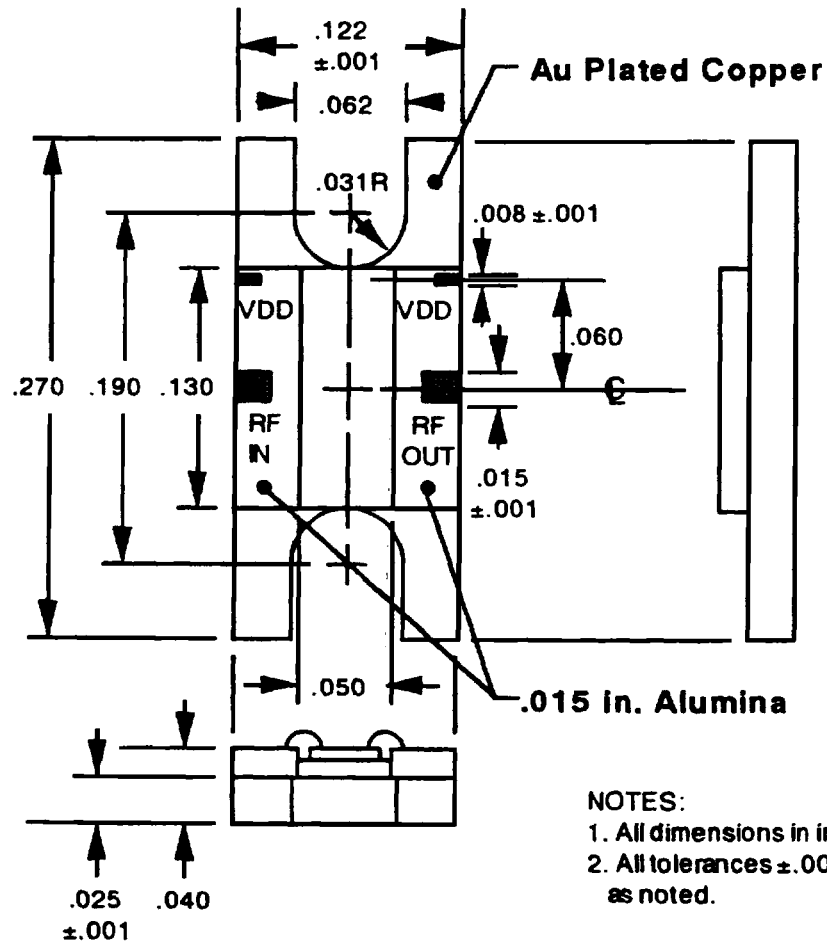
SYMBOL	PARAMETERS	UNITS	MIN	TYP	MAX
FREQ	Frequency Range	GHz	2.0		8.0
VSWR, IN	Input VSWR	---		1.5:1	1.7:1
VSWR, OUT	Output VSWR	---		1.5:1	1.7:1
ΔG/ΔT	Gain Variation with Temperature	2 GHz 8 GHz		-0.017 -0.019	
NF	Noise Figure	dB		6.5	7.0
ISO	Reverse Isolation	dB		30	
RTH	Thermal Resistance	°C/W		65	

#### 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.



## MODULE OUTLINE



### 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.