



MwT-102G

2-18 GHz

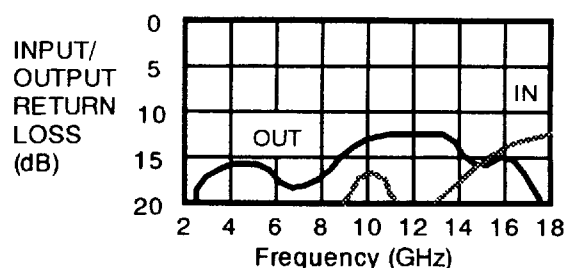
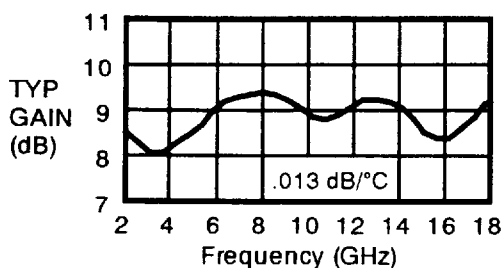
MMIC AMPLIFIER MODULE

MICROWAVE TECHNOLOGY

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- 7.0 dB TYPICAL SMALL SIGNAL GAIN
- 1.9:1 TYPICAL VSWR
- 16 dBm TYPICAL P1dB
- ± 0.75 dB TYPICAL OUTPUT POWER FLATNESS
- SINGLE SUPPLY BIAS
- CENTER FEED CONFIGURATION
- IDEAL FOR LIMITING AMPLIFIER APPLICATIONS

ELECTRICAL SPECIFICATIONS ($T_a = 25^\circ\text{C}$, $V_{DD} = 8.0\text{V}$, 2 - 18 GHz)

MwT-102G-GFP (Model Number)

GAIN (dB)			GAIN FLATNESS ($\pm$ dB)			P1dB (dBm)			IDD (mA)		
"G"	MIN	TYP	"F"	TYP	MAX	"P"	MIN	TYP	VDD	TYP	MAX
-6	6	7	-7	0.60	0.75	-0	7	9	8	40	60
-7	7	8	-1	0.75	1.00	-1	11	12	8	55	70
						-3	13	14	8	70	100

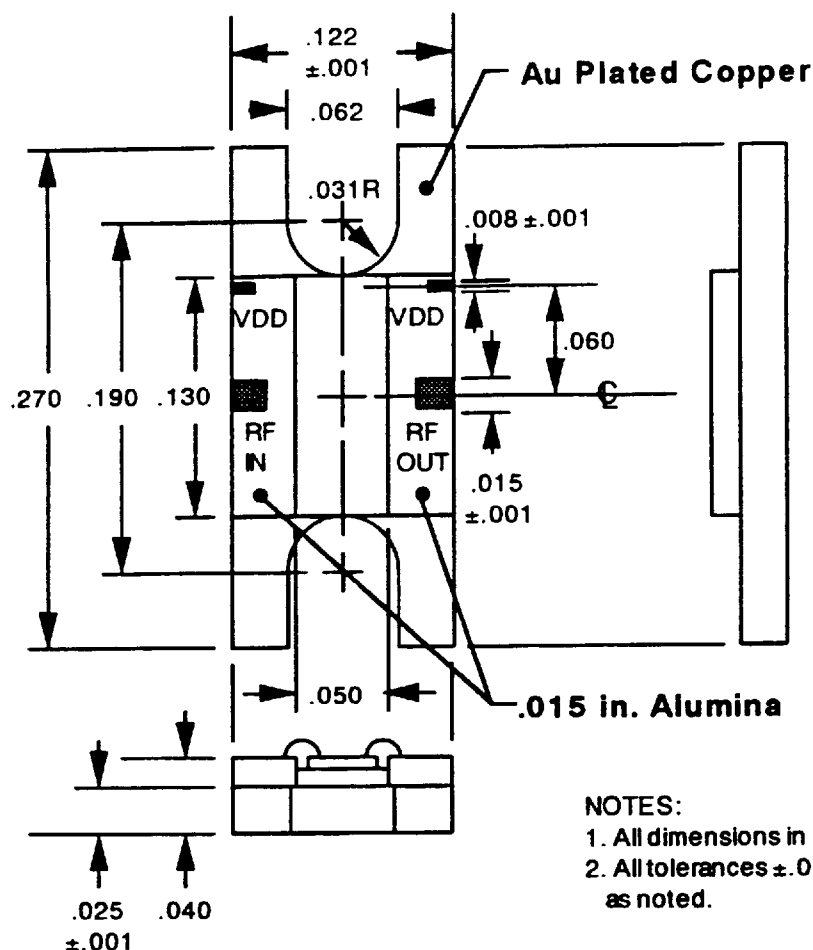
Example: MwT-102G -713 = 7 dB Gain, ± 1.0 dB Gain Flatness, +13 dBm P1dB

SYMBOL	PARAMETERS	UNITS	MIN	TYP	MAX
FREQ	Frequency Range	GHz	2.0		18.0
VSWR, IN	Input VSWR	---		1.9:1	2.0:1
VSWR, OUT	Output VSWR	---		1.7:1	2.0:1
$\Delta G/\Delta T$	Gain Variation With Temperature			-0.019	
	2 GHz			-0.017	
	10 GHz			-0.013	
	18 GHz				
NF	Noise Figure	dB		7.5	8.5
ISO	Reverse Isolation	dB		25	

NOTES:

1. Operating temperature range is -55°C to $+105^\circ\text{C}$
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 2 GHz increments, and P1dB in 2 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.