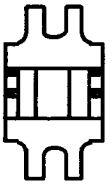
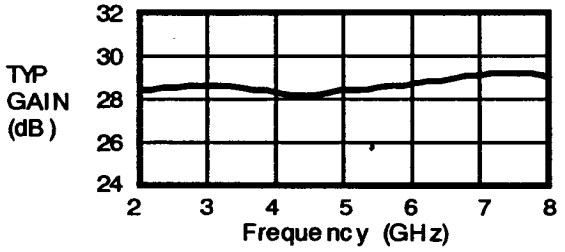
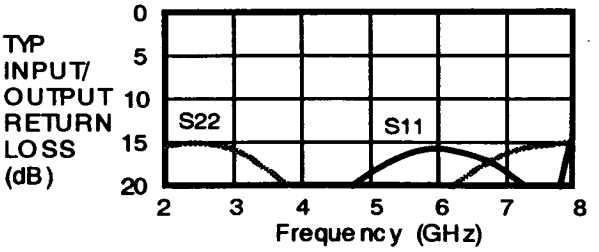
MwT-0208-101DG
2-8 GHz
MMIC AMPLIFIER MODULE

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



- 28 dB TYPICAL SMALL SIGNAL GAIN
- 1.5:1 TYPICAL INPUT AND OUTPUT VSWR
- 45 dB TYPICAL REVERSE ISOLATION
- ±0.6 dB TYPICAL OUTPUT POWER FLATNESS
- -16 dBc TYPICAL SECOND HARMONICS AT Psat
- SINGLE SUPPLY BIAS
- CENTER FEED CONFIGURATION
- IDEAL FOR LIMITING AMPLIFIER APPLICATIONS





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

MwT-0208-101DG-GFP (Model Number)

GAIN (dB)

"G"	MIN	TYP
-4	24	26
-6	26	28
-8	28	30

GAIN FLATNESS (±dB)

"F"	TYP	MAX
-7	0.6	0.75
-1	0.75	1.00

P1dB (dBm) / **IDD (mA)**

"P"	MIN	TYP	VDD	TYP	MAX
-1	11	12	8	70	90
-3	13	14	8	90	110
-7	17	18	10	150	200

Example: MwT-0208-101DG-673 = 26 dB Gain, ±0.75 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			0.017	
		8 GHz			0.019	
NF	Noise Figure		dB		6.5	7.0
ISO	Reverse Isolation		dB		45	

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 P1 dB in 1 GHz increments.
4. Test fixtures are available. Contact MwT for details.

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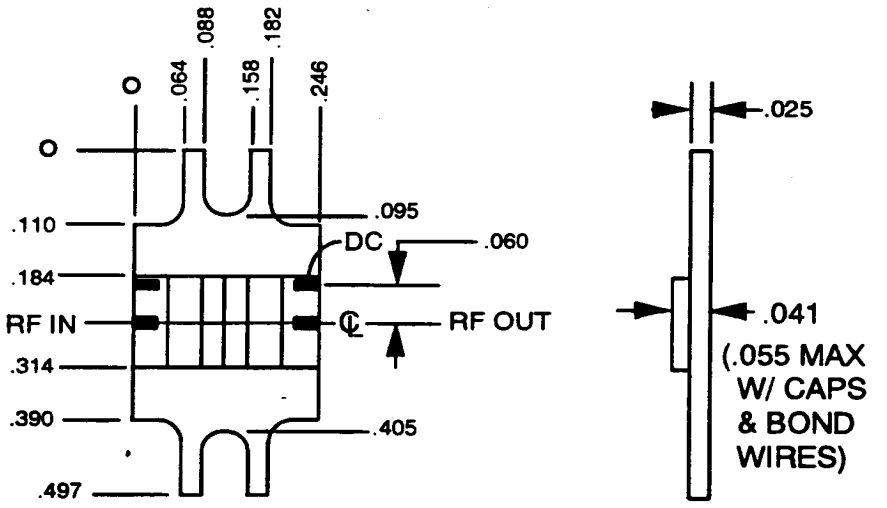
MODULE OUTLINE



1. DIMENSIONS IN INCHES
2. TOLERANCE:
   XXX = +/- .005
   XX = +/- .01

CONSTRUCTION:

The 15 mil alumina substrates and 10 mil copper FET ridge are brazed onto the 25 mil Cu-W carrier using AuGe preform. The GaAs FETs (standard 5 mil thickness) are attached to the Cu ridge using AuSn preform. All capacitors are attached using AuSn preforms. The flanges are designed to accommodate 0-80 UNF-2A socket or Fillister head screws on .400 center-to-center hole spacing. The modules are mechanically and electrically designed to be cascaded.

NOTES:

1. Custom module specifications and/or custom module mechanical configurations are available.
2. OPERATING TEMPERATURE RANGE IS -55°C to +105°C.
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 and P-1dB are measured in 1 GHz increments. Special module testing is available.
4. Test fixtures are available.
5. Microwave Technology reserves the right to ship modules with gain and/or power above the typical specifications.

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