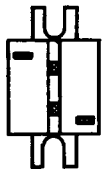
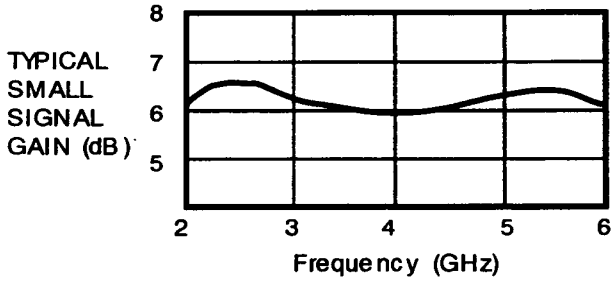
MwT-0206S-11P2/0206Z-11P2
2.0-6.0 GHz
BALANCED AMPLIFIER MODULE

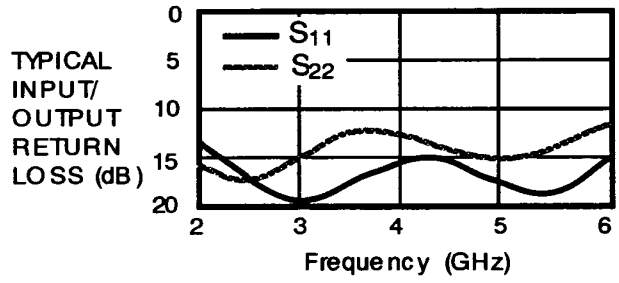
MICROWAVE TECHNOLOGY 4268 Solar Way Fremont, CA 94538 510-651-6700 FAX 510-651-2208

TYPICAL SPECIFICATIONS @ 25°C



- 6.0 dB SMALL SIGNAL GAIN
- +41 dBm IP3
- 30.0 dBm P-1dB
- 7.0 dB NOISE FIGURE
- 850 mA @ +8V
- USES TWO MwT-11 GaAs FET DEVICES





ELECTRICAL SPECIFICATIONS (Ta=25°C)

SYMBOL	PARAMETERS	UNITS	MIN	TYP	MAX
FREQ	Frequency Range	GHz	2.0		6.0
SSG	Small Signal Gain	dB	5.0	6.0	
ΔG/ΔF	SSG Flatness	±dB		0.4	0.6
ΔG/ΔT	SSG Variation over Temperature	dB/°C		-.012	
P-1dB	Output Power at 1 dB Compression	dBm	29.5	30.0	
PSAT	Output Power at 6 dB Compression	dBm		31.0	
ΔP-1/ΔT	P-1dB Variation over Temperature	dB/°C		-.008	
IP3	Third Order Intercept Point	dBm		41.0	
2nd HAR	2nd Harmonic at Pout = 30.0 dBm	dBc		-21.0	
2nd HAR	2nd Harmonic at Pout = 31.0 dBm	dBc		-16.0	
NF	Noise Figure	dB		7.0	
VSWR,IN	Input VSWR	--		1.7:1	2.0:1
VSWR,OUT	Output VSWR	--		1.7:1	2.0:1
ISO	Reverse Isolation	dB		-18.0	
VDD	Power Supply Voltage	+V	7.9	8.0	8.1
IDD	Small Signal Module Current	mA		850	950
RTH	Thermal Resistance Including FET*	°C/W		41	

* When calculating Tch, use FET Vds = 6.0 volts and FET Ids = 440 mA.

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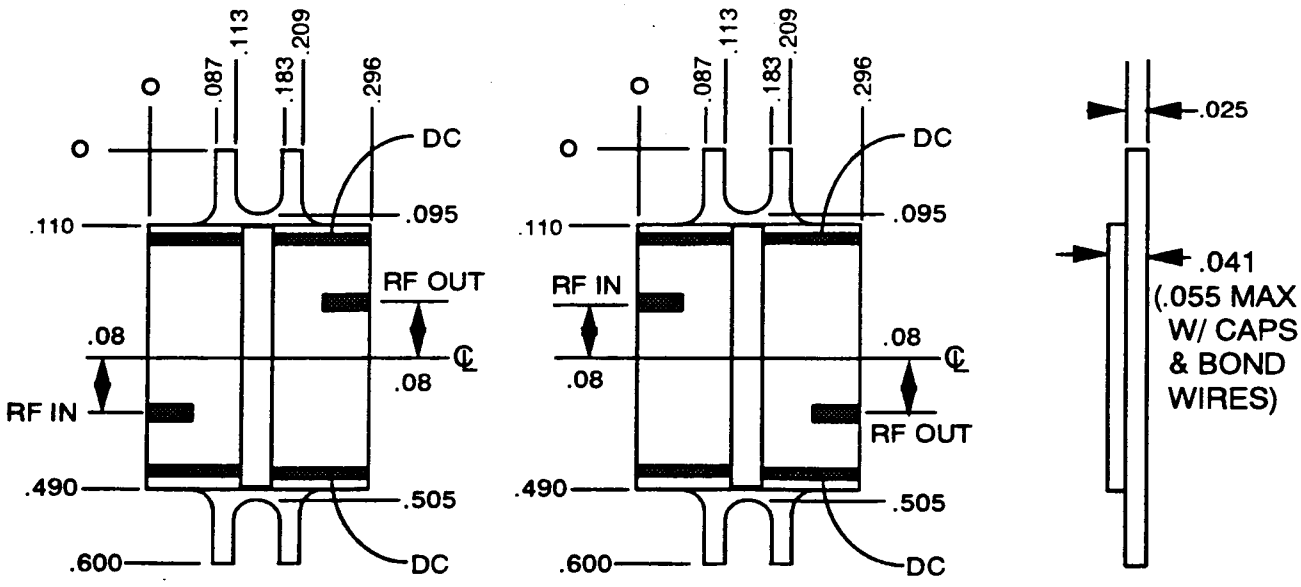
MICROWAVE TECHNOLOGY

MODULE OUTLINES



"S" "Z"

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

CONFIGURATIONS

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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