

# RF AMPLIFIER

## MODEL *TM9308*

Available as: TM9308, 4 Pin 0.500" TO-8 (T4)  
 TN9308, 4 Pin 0.450" Sq. Surface Mount (SM3)  
 BX9308, SMA Connectorized Housing (H1)  
 BXP9308, SMA Connectorized Housing (HPak)

### Features

- High Output Power: +26 dBm Typical
- Ultra Broad Bandwidth 20-3000 MHz
- Cross to the CougaAP3008, our ModelTM9308
- Cross to the CougaACP3008, our Model BXP9308
- Screening to the Tables of MIL-STD-883 Available

### Specifications

CHARACTERISTIC		TYPICAL Ta= 25 °C	MIN/MAX Ta = -55 °C to +85 °C
Frequency		10 - 3200 MHz	20 - 3000 MHz
Gain		12.5 dB	10.5 dB Min.
Gain Flatness		+/- 0.5 dB	+/- 0.9 dB Max.
Noise Figure (200 - 3000 MHz)		3.0 dB	4.3 dB
VSWR	In	1.7:1	2.0:1 Max.
	Out	1.7:1	2.0:1 Max.
Power @ 1 dB Comp. (20-2500 MHz) (2500-3000 MHz)		+26.0 dBm +25.0 dBm	+24.5 dBm Min. +23.0 dBm Min.
Reverse Isolation		-21 dB	-
Power	Vdc	+15	+15
	mA	185	190 Max.

### Typical Intermodulation Performance at 25 °C

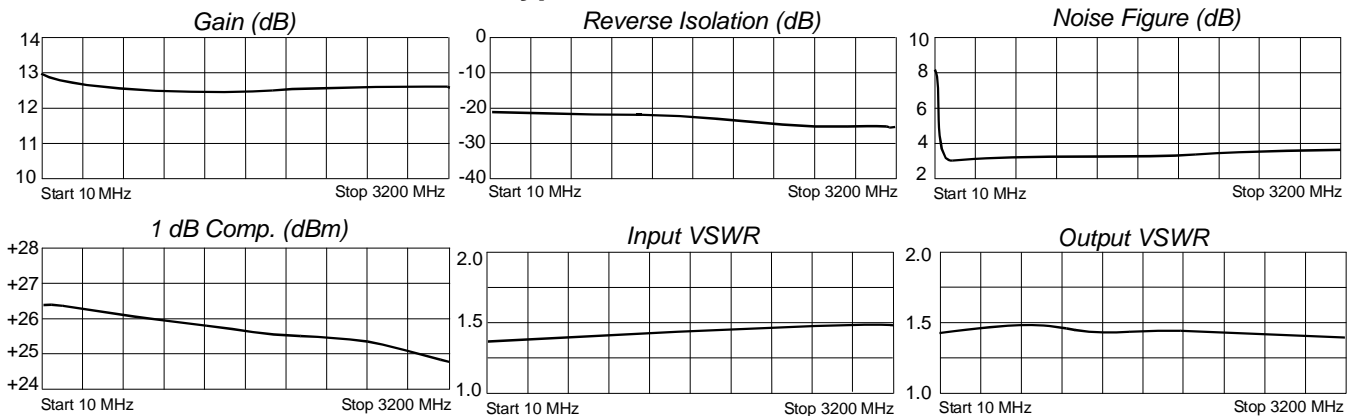
Second Order Harmonic Intercept Point.....+64 dBm (Typ.)  
 Second Order Two Tone Intercept Point.....+58 dBm (Typ.)  
 Third Order Two Tone Intercept Point.....+40 dBm (Typ.)  
 (Typical at 25°C under a +15 volt supply)

### Maximum (No Damage) Ratings

Ambient Operating Temperature ..... -55°C to +100 °C  
 Storage Temperature ..... -62°C to +125 °C  
 Case Temperature ..... +125 °C  
 DC Voltage ..... +18 Volts  
 Continuous RF Input Power..... +20 dBm  
 Short Term RF Input Power.... 100 Milliwatts (1 Minute Max.)  
 Maximum Peak Power ..... 0.5 Watt (3 µsec Max.)

Note: Care should always be taken to effectively ground the case of each unit.  
 Revision 5/14/2012

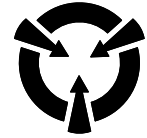
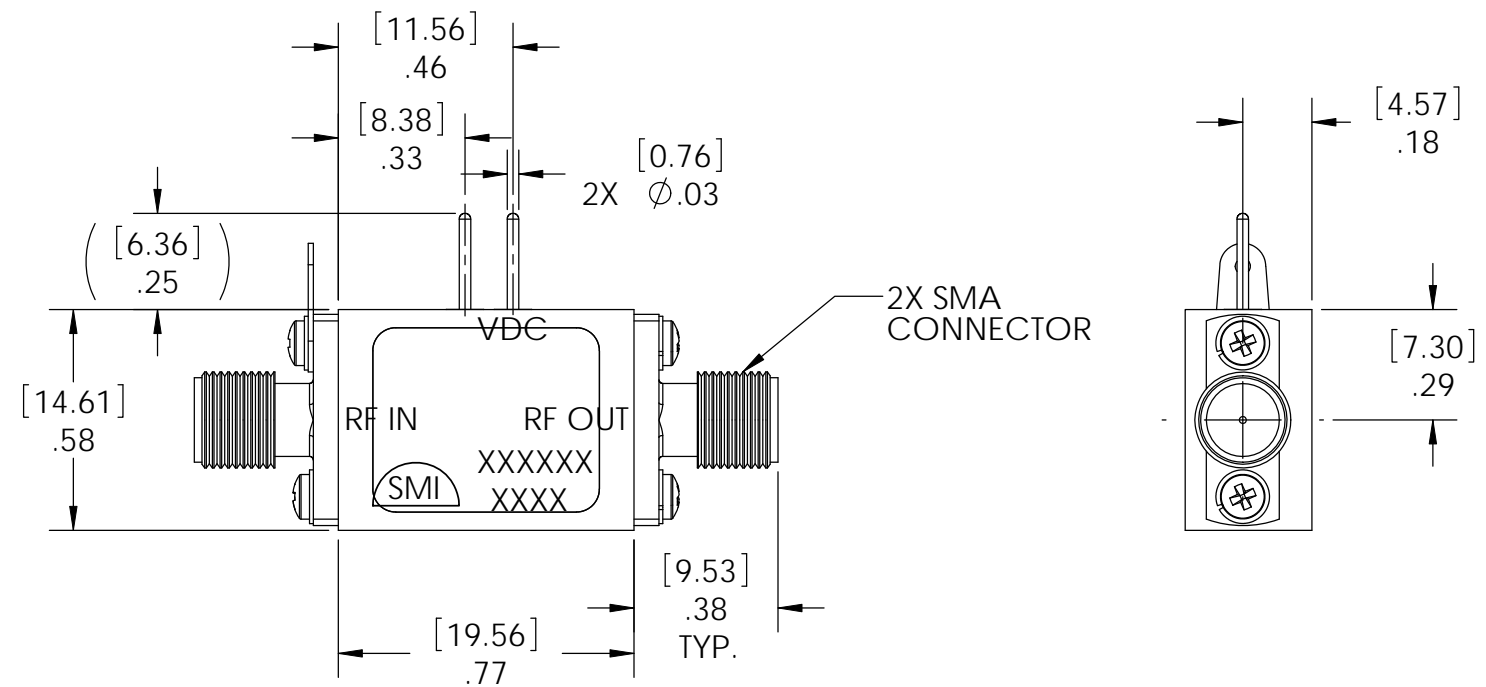
### Typical Performance Data



Legend ——— +25 °C    - - - - +85 °C    ······ -55 °C

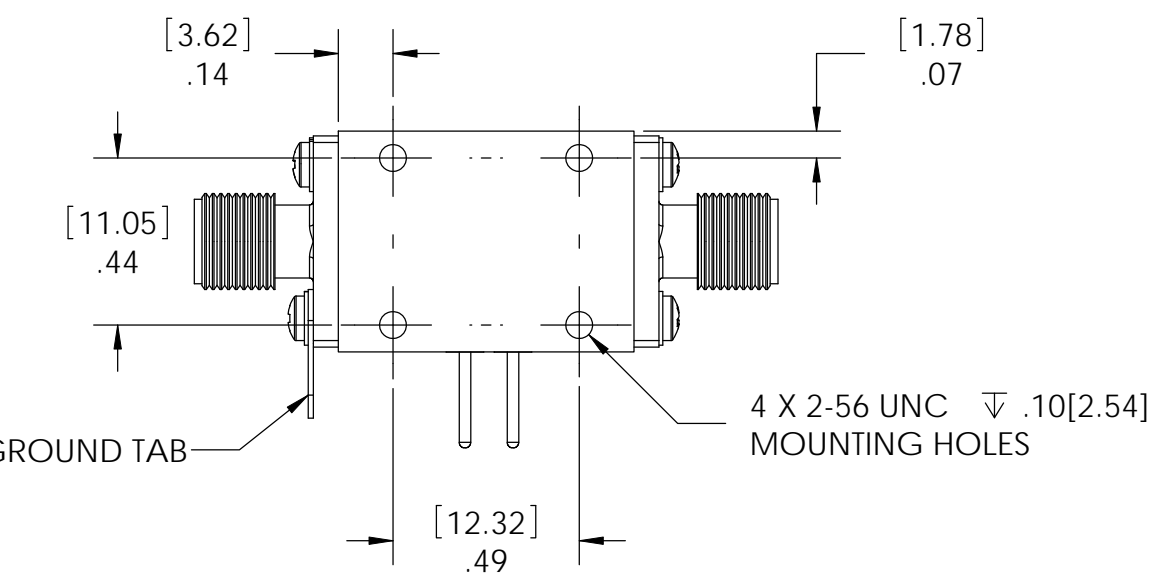
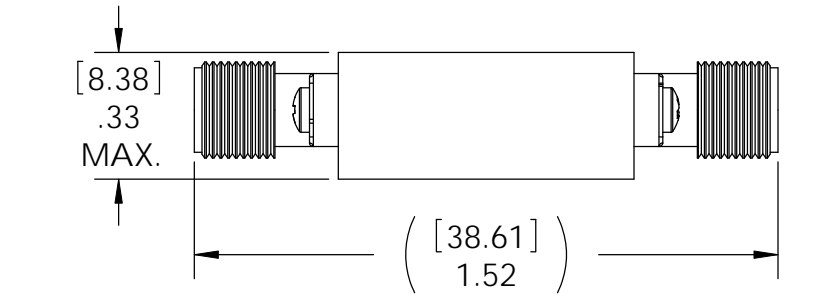


REVISIONS				
ECN	REV.	DESCRIPTION	CHNG/DATE	APPVD/DATE
XXX	P1	PRELIMINARY RELEASE	2012/05/14	



**CAUTION**

THIS ASSEMBLY CONTAINS PARTS SENSITIVE TO DAMAGE BY ELECTROSTATIC DISCHARGE (ESD). USE ESD PRECAUTIONARY PROCEDURES WHEN TOUCHING, REMOVING OR INSERTING



SEE SEPARATE PARTS LIST IN ELECTRONIC STORAGE

UNLESS OTHERWISE SPECIFIED		3rd ANGLE PROJECTION		<b>SPECTRUM MICROWAVE, INC</b> 2707 Black Lake Place Philadelphia, PA 19154-1008 (USA)		
* INTERPRET DRAWING IAW ASME Y14.100-2004 * DIMENSIONING AND TOLERANCING IAW ASME Y14.5-1994 * PARENTHETICAL INFORMATION FOR REFERENCE ONLY * DIMENSIONAL LIMITS APPLY BEFORE PROCESSES * DIMENSIONS ARE IN INCHES * TOLERANCES ARE: ANGLES ±1.0° * SURFACE FINISH * REMOVE ALL BURRS AND SHARP EDGES .010 RAD MAX. * CONCENTRICITY MACHINED DIA: .002 FIM * MACHINED TOOL MISMATCH: .002 MAX.		ANSI				
63 2 PLACE DECIMAL ±.02 3 PLACE DECIMAL ±.005		DRAWN WAR CHECKED	DATE 2012/05/14	<b>OUTLINE, HPAC</b>		
SPECTRUM MICROWAVE PROPRIETARY INFORMATION THIS DOCUMENT IS THE SOLE PROPERTY OF SPECTRUM MICROWAVE, INC. THE RELEASE OF DATA CONTAINED IN THIS DOCUMENT AND THE REPRODUCTION OF THIS DOCUMENT, IN WHOLE OR IN PART, WITHOUT THE WRITTEN PERMISSION OF SPECTRUM MICROWAVE, INC ARE PROHIBITED.		ENGRG H PHAM MFG	2012/05/14	SIZE <b>B</b>	CAGE CODE <b>60979</b>	DWG NO. <b>088-00304</b>
DO NOT SCALE DRAWING		QA		SCALE: <b>1.5:1</b>	SHEET <b>1</b> OF <b>1</b>	REV <b>P1</b>