

# RF AMPLIFIER

## MODEL TZ9208

Available as: TZ9208, 4 Pin TO-8 (T4)  
 TN9208, 4 Pin Surface Mount (SM3)  
 FP9208, 4 Pin Flatpack (FP4)  
 BX9208, Connectorized Housing

### Features

- High Gain: 27.5 dB Typical
- Output Power: + 15.5 dBm Typical
- Operating Temp. -55 °C to +85 °C
- Environmental Screening Available

### Typical Intermodulation Performance at 25 ° C

Second Order Harmonic Intercept Point ..... +50 dBm (Typ.)  
 Second Order Two Tone Intercept Point ..... +44 dBm (Typ.)  
 Third Order Two Tone Intercept Point ..... +28 dBm (Typ.)

### Specifications

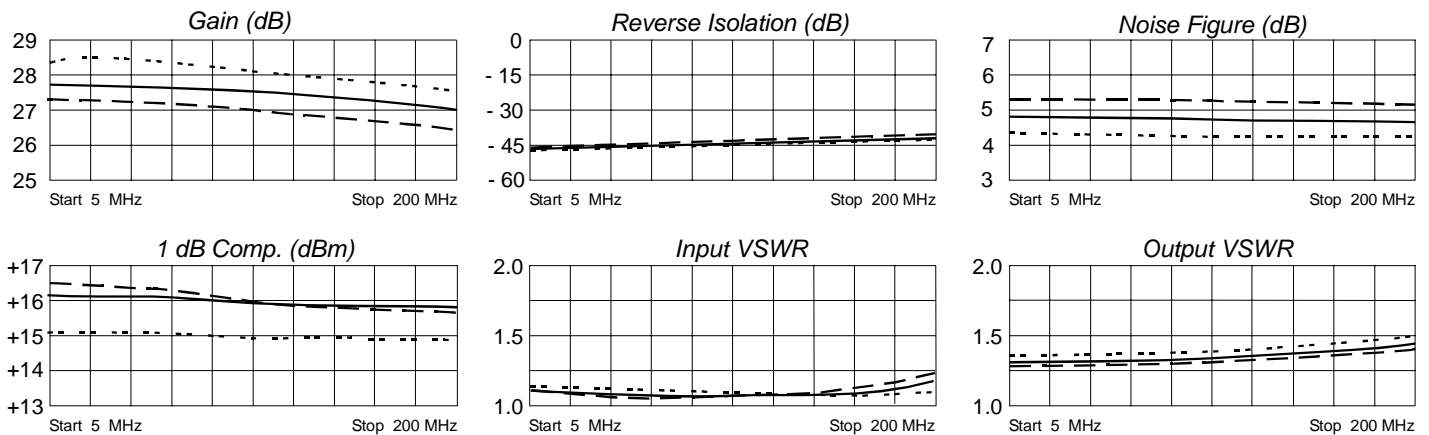
CHARACTERISTIC	TYPICAL Ta= 25 °C	MIN/MAX Ta = -55 °C to +85 °C
Frequency	5 - 200 MHz	5 - 200 MHz
Gain (dB)	27.5	26.0 Min.
Power @ 1 dB Comp. (dBm)	+15.5	+14.5 Min.
Reverse Isolation (dB)	-42	-40 Max.
VSWR In	<1.25:1	2.0:1 Max.
VSWR Out	<1.5:1	2.0:1 Max.
Noise figure (dB)	<5.0	6.0 Max.
Power Vdc	+12	+12
mA	90	100 Max.

Note: Care should always be taken to effectively ground the case of each unit.

### Maximum Ratings

Ambient Operating Temperature ..... -55°C to + 100 °C  
 Storage Temperature ..... -62°C to + 125 °C  
 Case Temperature ..... + 125 °C  
 DC Voltage ..... + 15 Volts  
 Continuous RF Input Power ..... + 13 dBm  
 Short Term RF Input Power..... 50 Milliwatts (1 Minute Max.)  
 Maximum Peak Power ..... 0.5 Watt ( 3 µsec Max.)

### Typical Performance Data



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

### Linear S-Parameters

FREQ. MHz	S11		S21		S12		S22	
	Mag	Deg	Mag	Deg	Mag	Deg	Mag	Deg
5	.03	-116	24.78	3	.00	8	.13	-165
50	.02	-125	24.66	-24	.00	7	.13	-176
100	.03	-94	24.17	-50	.00	71	.15	-176
150	.05	-74	23.50	-74	.01	60	.17	-179
200	.09	-71	22.50	-99	.01	66	.19	176



Spectrum Microwave · 2144 Franklin Drive N.E. · Palm Bay, Florida 32905 · PH (888) 553-7531 · Fax (888) 553-7532 01/14/05

www.spectrummicrowave.com Spectrum Microwave (Europe) · 2707 Black Lake Place · Philadelphia, Pa. 19154 · PH (215) 464-4000 · Fax (215) 464-4001