

# RF AMPLIFIER

## MODEL TZ9216

Available as: TZ9216, 4 Pin TO-8 (T4)  
 TN9216, 4 Pin Surface Mount (SM3)  
 FP9216, 4 Pin Flatpack (FP4)  
 BX9216, Connectorized Housing (H1)  
 PN9216, Reduced Size Surface Mount (SM11)

### Features

- Medium Gain: 12.5 dB Typical
- Medium 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 ..... +46 dBm (Typ.)  
 Second Order Two Tone Intercept Point ..... +41 dBm (Typ.)  
 Third Order Two Tone Intercept Point ..... +30 dBm (Typ.)

### Specifications

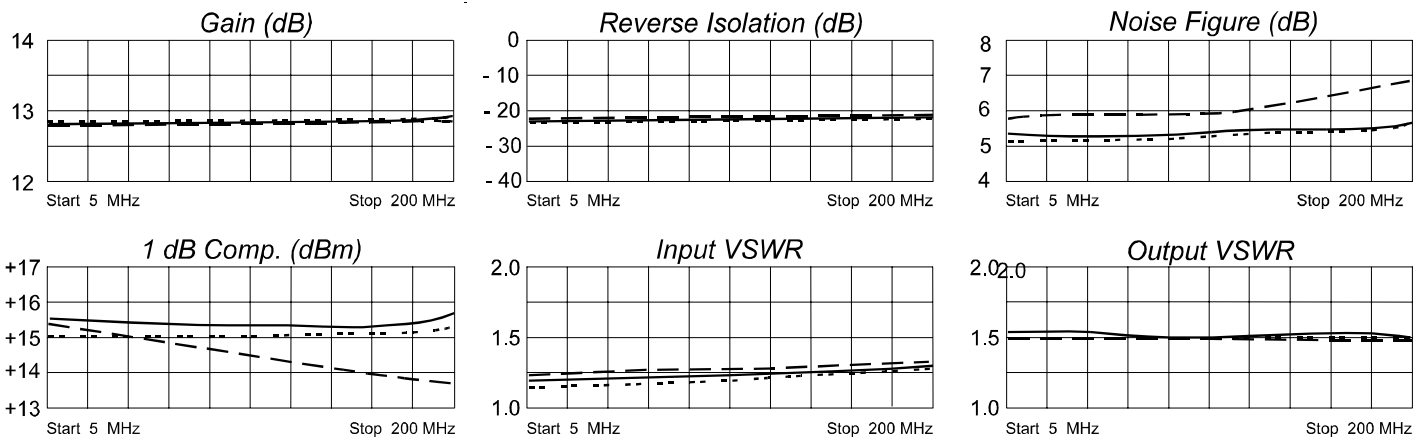
CHARACTERISTIC	TYPICAL Ta= 25 °C	MIN/MAX Ta = -55 °C to +85 °C
Frequency	5 - 200 MHz	5 - 200 MHz
Gain (dB)	12.5	11.0 Min.
Power @ 1 dB Comp. (dBm)	+15.5	+13.5 Min.
Reverse Isolation (dB)	-21	-20 Max.
VSWR In	1.25:1	2.0:1 Max.
VSWR Out	1.5:1	2.0:1 Max.
Noise Figure (dB)	5.5	7.0 Max.
Power Vdc	+15	+15
mA	50	55 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 ..... +18 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		S12		S21		S22	
	Mag	Deg	Mag	Deg	Mag	Deg	Mag	Deg
5	.11	- 9	4.45	-178	.07	3	.12	- 11
25	.11	- 9	4.45	176	.08	2	.12	- 13
50	.10	- 16	4.44	171	.08	1	.12	- 24
100	.12	-32	4.49	161	.08	3	.13	- 46
150	.13	- 47	4.55	151	.08	5	.14	- 67
200	.14	- 60	4.62	141	.08	6	.16	- 90



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