

# RF AMPLIFIER

## MODEL TZ9210

Available as: TZ9210, 4 Pin TO-8 (T4)  
 TN9210, 4 Pin Surface Mount (SM3)  
 FP9210, 4 Pin Flatpack (FP4)  
 BX9210, Connectorized Housing

### Features

- High Gain: 29 dB Typical
- Operating Temp. -55 °C to +85 °C
- Environmental Screening Available

### Specifications

CHARACTERISTIC	TYPICAL Ta= 25 °C	MIN/MAX Ta = -55 °C to +85 °C
Frequency	0.1 - 200 MHz	0.1 - 200 MHz
Gain (dB)	29	27.5 Min.
Power @ 1 dB Comp. (dBm)	+7	+5.0 Min.
Reverse Isolation (dB)	-41	-39 Max.
VSWR In	<1.25:1	2.0:1 Max.
Out	<1.5:1	2.0:1 Max.
Noise figure (dB)	<4.5	6.0 Max.
Power Vdc	+15	+15
mA	35	40 Max.

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

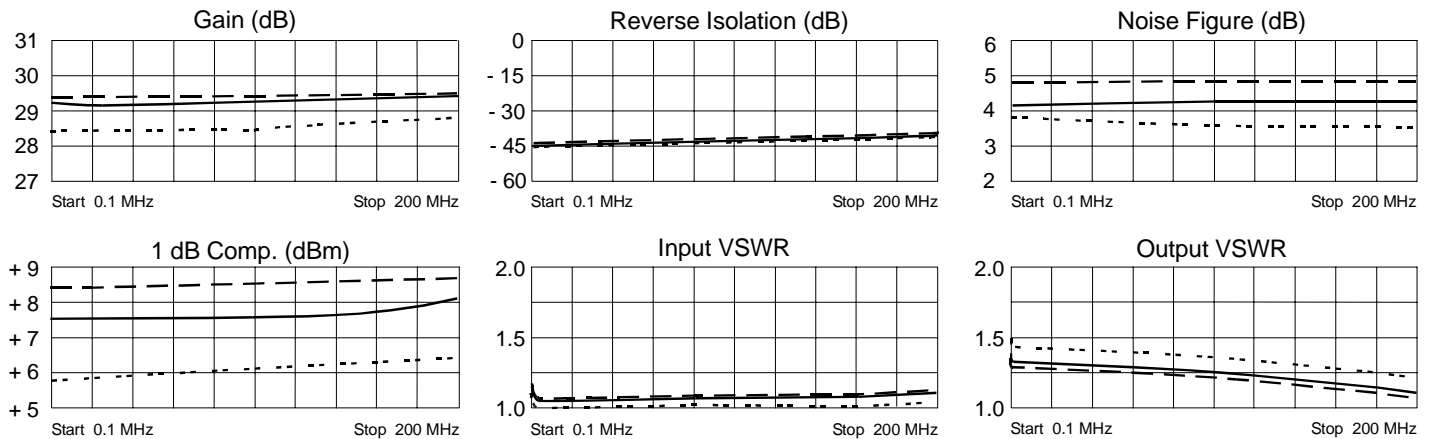
### Typical Intermodulation Performance at 25 °C

Second Order Harmonic Intercept Point ..... +39 dBm (Typ.)  
 Second Order Two Tone Intercept Point ..... +33 dBm (Typ.)  
 Third Order Two Tone Intercept Point ..... +19 dBm (Typ.)

### 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 ..... + 6 dBm  
 Short Term RF Input Power ..... 50 Milliwatts (1 Minute Max.)  
 Maximum Peak Power ..... 0.5 Watt ( 3 μsec Max.)

### Typical Performance Data



### Linear S-Parameters

FREQ. MHz	S11		S21		S12		S22	
	Mag	Deg	Mag	Deg	Mag	Deg	Mag	Deg
5	.01	-17	28.83	-2	.01	-1	.13	-2
10	.01	-13	28.81	-4	.01	4	.13	-2
50	.02	-31	28.72	-22	.01	-16	.12	-5
100	.02	-31	28.92	-45	.01	21	.11	-12
150	.03	-32	29.14	-68	.01	19	.08	-11
200	.04	-28	29.35	-91	.01	26	.05	6



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