

# RF AMPLIFIER

## MODEL *TM7210*

Available as: TM7210, 4 Pin TO-8 (T4)  
 TN7210, 4 Pin Surface Mount (SM3)  
 FP7210, 4 Pin Flatpack (FP4)  
 BX7210, Connectorized Housing (H1)

### Features

- Low Noise Figure: 1.3 dB Typical
- Operating Temp. - 55 °C to +85 °C
- Environmental Screening Available

### Typical Intermodulation Performance at 25 ° C

Second Order Harmonic Intercept Point.....+53 dBm (Typ.)  
 Second Order Two Tone Intercept Point.....+48 dBm (Typ.)  
 Third Order Two Tone Intercept Point.....+31 dBm (Typ.)

### Specifications

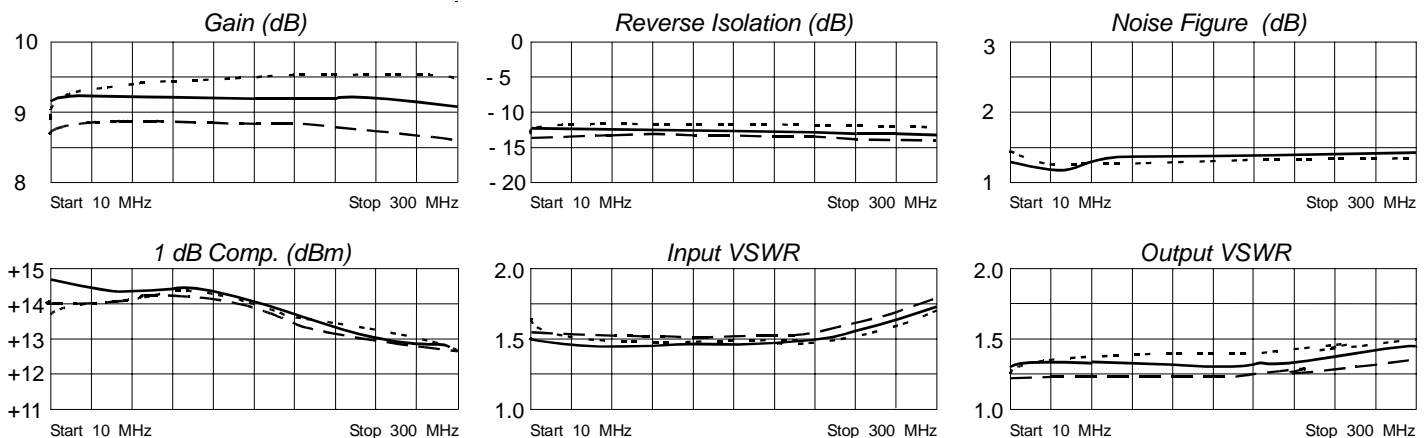
CHARACTERISTIC	TYPICAL Ta= 25 °C	MIN/MAX Ta = -55 °C to +85 °C
Frequency	10-300 MHz	10-300 MHz
Gain (dB)	9 ± 0.5	8.0 Min.
Power @ 1 dB Comp. (dBm)	+14	+12.5 Min.
Reverse Isolation (dB)	-11.5	-11 Max.
VSWR In	<1.5:1	2.0:1 Max.
Out	1.35:1	2.0:1 Max.
Noise Figure (dB)	1.3	2.0 Max.
Power Vdc	+15	+15 Min.
mA	15	17 Max.

### 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 ..... + 10 dBm  
 Short Term RF Input Power ..... 50 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.

### 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
10	.21	180	2.85	2	.26	8	.13	8
50	.19	173	2.89	-11	.26	-14	.15	-14
100	.19	170	2.89	-24	.26	-38	.14	-38
150	.18	169	2.89	-36	.26	-62	.14	-62
200	.20	170	2.88	-49	.25	-91	.13	-91



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