

# RF AMPLIFIER

## MODEL *TM7275*

Available as: TM7275, 4 Pin TO-8 (T4)  
 TN7275, 4 Pin Surface Mount (SM3)  
 FP7275, 4 Pin Flatpack (FP4)  
 BX7275, Connectorized Housing (H1)

### Features

- High Gain: 20.5 dB Typical
- Low noise Figure: 2.5 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	5-250 MHz	5-250 MHz
Gain (dB)	20.5	19.0 Min.
Power @ 1 dB Comp. (dBm)	+9.5	+8.0 Min.
Reverse Isolation (dB)	-25	-22 Max.
VSWR In	<1.5:1	2.0:1 Max.
Out	<1.75:1	2.0:1 Max.
Noise Figure (dB)	2.5	3.5 Max.
Power Vdc	+15	+15 Min.
mA	24	27 Max.

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

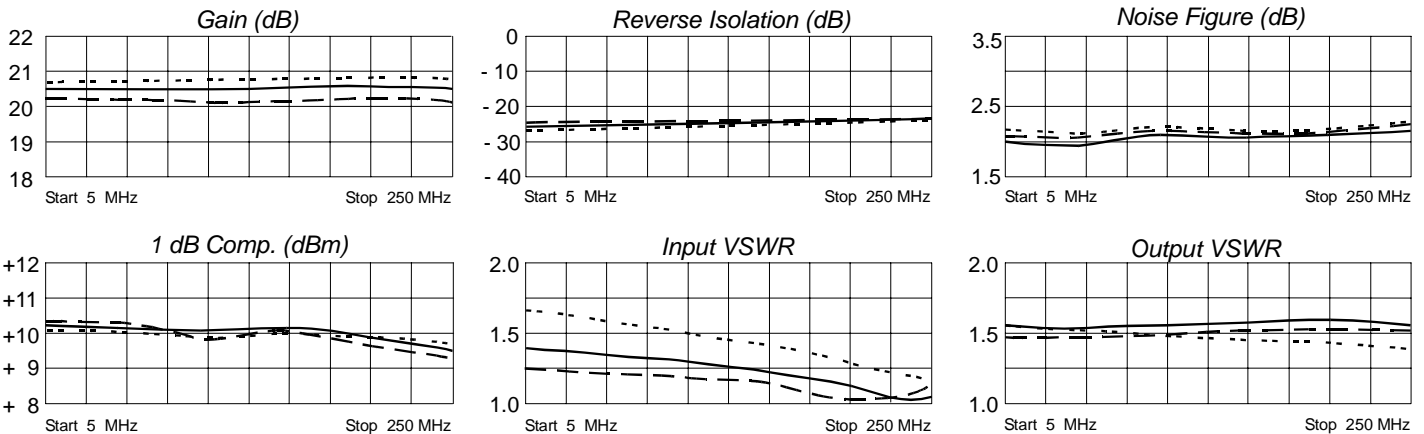
### Typical Intermodulation Performance at 25 ° C

Second Order Harmonic Intercept Point..... +33 dBm (Typ.)  
 Second Order Two Tone Intercept Point..... +27 dBm (Typ.)  
 Third Order Two Tone Intercept Point..... +22 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 ..... + 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	.17	-176	10.65	-178	.06	5	.21	-173
10	.16	179	10.63	179	.06	3	.21	-177
25	.16	173	10.62	173	.06	1	.21	-179
50	.15	165	10.61	164	.06	3	.21	-180
100	.13	148	10.61	148	.06	1	.21	-178
150	.10	134	10.62	132	.06	- 1	.22	180
200	.16	115	10.59	114	.07	0	.22	176
250	.01	- 34	10.58	97	.07	- 3	.23	169



Spectrum Microwave · 2144 Franklin Drive N.E. · Palm Bay, Florida 32905 · PH (888) 553-7531 · Fax (888) 553-7532 6/30/04

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