

# RF AMPLIFIER

## MODEL *TM7282*

Available as: TM7282, 4 Pin TO-8 (T4)  
 TN7282, 4 Pin Surface Mount (SM3)  
 FP7282, 4 Pin Flatpack (FP4)  
 BX7282, Connectorized Housing (H1)

### Features

- High Output Power: +21 dBm Typical
- High Gain: 23.5 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	20-250 MHz	20-250 MHz
Gain (dB)	23.5	21.0 Min.
Power @ 1 dB Comp. (dBm)	+21	+18.0 Min.
Reverse Isolation (dB)	-28	-27 Max.
VSWR In	<1.5:1	2.0:1 Max.
Out	<1.5:1	2.3:1 Max.
Noise Figure (dB)	4.0	5.0 Max.
Power Vdc	+15	+15 Min.
mA	45	50 Max.

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

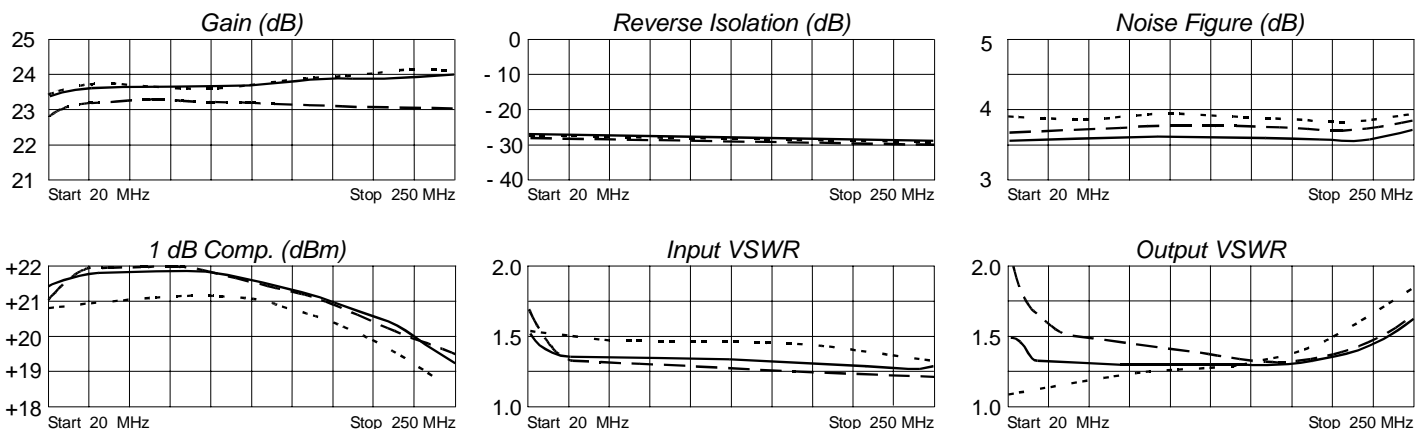
### Typical Intermodulation Performance at 25 ° C

Second Order Harmonic Intercept Point..... +43 dBm (Typ.)  
 Second Order Two Tone Intercept Point..... +38 dBm (Typ.)  
 Third Order Two Tone Intercept Point..... +34 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
10	.34	-94	14.03	-148	.03	19	.34	112
20	.22	-128	14.93	-171	.03	6	.19	99
50	.16	-168	15.15	164	.03	-5	.13	76
100	.15	157	15.21	136	.03	-13	.13	38
150	.13	127	15.31	111	.03	-23	.13	-9
200	.12	91	15.46	84	.03	-38	.15	-69
250	.10	40	15.34	56	.03	-51	.24	-129
300	.12	-34	14.77	25	.02	-69	.41	-173



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