

# RF AMPLIFIER

## MODEL *TM7287*

Available as: TM7287, 4 Pin TO-8 (T4)  
 TN7287, 4 Pin Surface Mount (SM3)  
 FP7287, 4 Pin Flatpack (FP4)  
 BX7287, Connectorized Housing (H1)

### Features

- High Efficiency: 70 mW D.C. with > +10 dBm Output
- Low Noise Figure: 2.75 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	10-300 MHz	10-300 MHz
Gain (dB)	15.5	14.5 Min.
Power @ 1 dB Comp. (dBm)	+10	+9.0 Min.
Reverse Isolation (dB)	-20	-19 Max.
VSWR In Out	<1.5:1 <1.25:1	2.0:1 Max. 2.0:1 Max.
Noise Figure (dB)	2.75	4.0 Max.
Power Vdc mA	+5 14.5	+5 Min. 16 Max.

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

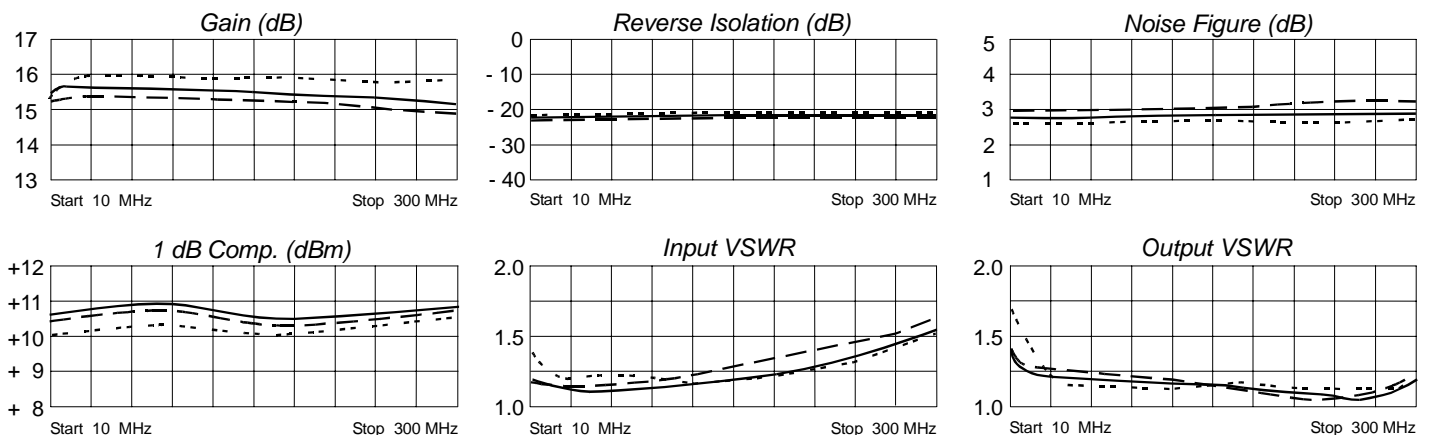
### Typical Intermodulation Performance at 25 ° C

Second Order Harmonic Intercept Point..... +39 dBm (Typ.)  
 Second Order Two Tone Intercept Point..... +33 dBm (Typ.)  
 Third Order Two Tone Intercept Point..... +24 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 ..... + 10 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	.08	-100	6.00	-177	.09	5	.14	153
50	.04	-139	6.10	162	.09	-10	.09	171
100	.04	-112	6.07	141	.10	-21	.08	-179
200	.12	-106	5.96	101	.10	-46	.05	-144
300	.23	-147	5.85	57	.10	-75	.10	- 42



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