

# RF AMPLIFIER

## MODEL *TM7286*

Available as: TM7286, 4 Pin TO-8 (T4)  
 TN7286, 4 Pin Surface Mount (SM3)  
 FP7286, 4 Pin Flatpack (FP4)  
 BX7286, Connectorized Housing (H1)

### Features

- Low Noise: <2.5 dB Typical
- High Gain: 28 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	10-200 MHz
Gain (dB)	28	26.0 Min.
Power @ 1 dB Comp. (dBm)	+8	+7.0 Min.
Reverse Isolation (dB)	-38.5	-37 Max.
VSWR In	<1.75:1	2.0:1 Max.
Out	<1.75:1	2.0:1 Max.
Noise Figure (dB)	<2.5	3.5 Max.
Power Vdc	+5	+5 Min.
mA	21	24 Max.

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

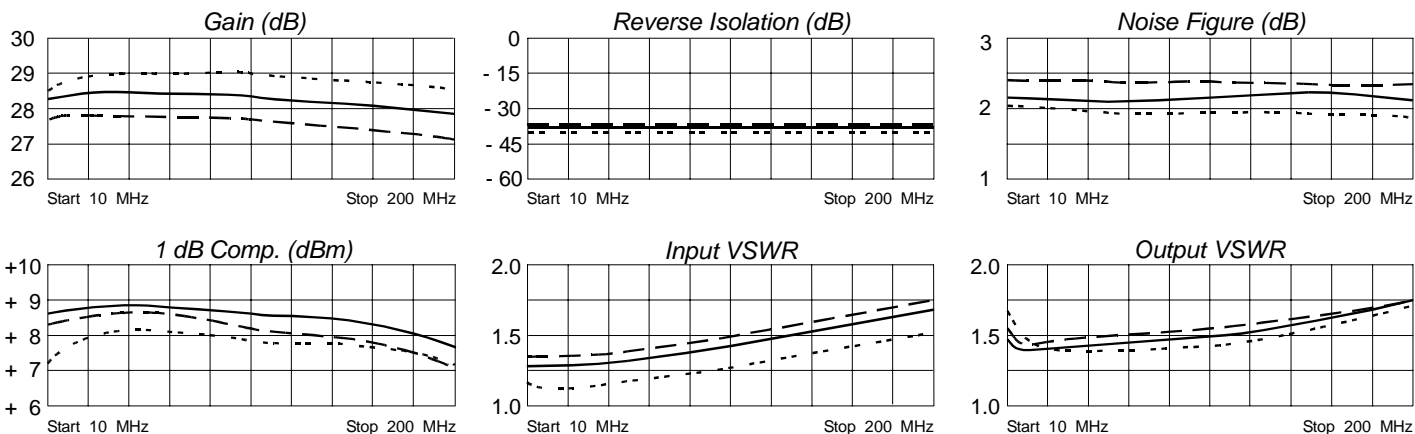
### Typical Intermodulation Performance at 25 ° C

Second Order Harmonic Intercept Point..... +34 dBm (Typ.)  
 Second Order Two Tone Intercept Point..... +28 dBm (Typ.)  
 Third Order Two Tone Intercept Point..... +20 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 ..... + 6 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	.13	27	25.53	11	.01	21	.24	160
10	.13	17	25.96	2	.02	1	.19	164
50	.14	16	26.09	- 28	.01	- 4	.17	-176
100	.18	22	25.93	- 58	.01	-16	.19	-165
150	.22	24	25.16	- 88	.01	4	.23	-159
200	.25	18	24.27	-119	.00	57	.29	-158
250	.31	12	22.40	-150	.01	-32	.34	-162



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