

# RF AMPLIFIER

## MODEL *TM9125*

Available as: TM9125, 4 Pin TO-8 (T4)  
 TN9125, 4 Pin Surface Mount (SM3)  
 FP9125, 4 Pin Flatpack (FP4)  
 BX9125, Connectorized Housing (H1)

### Features

- Medium Gain: 10.5 dB Typical
- Medium Output Power: +8 dBm 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 - 1500 MHz	10 - 1500 MHz
Gain (dB)	10.5	9.0 Min.
Power @ 1 dB Comp. (dBm)	+8	+7 Min.
Reverse Isolation (dB)	-15	-14 Max.
VSWR In	<1.5:1	2.0:1 Max.
Out	<1.75:1	2.0:1 Max.
Noise Figure (dB)	<4.5	6.0 Max.
Power Vdc	+15	+15
mA	24	27 Max.

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

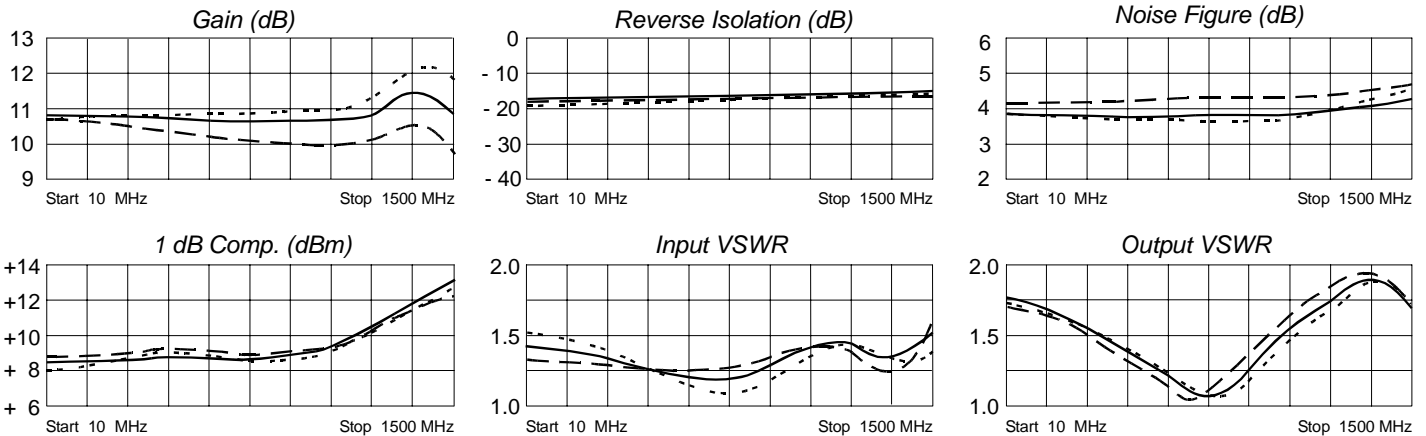
### Typical Intermodulation Performance at 25 ° C

Second Order Harmonic Intercept Point.....+39 dBm (Typ.)  
 Second Order Two Tone Intercept Point.....+33 dBm (Typ.)  
 Third Order Two Tone Intercept Point.....+21 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	.20	-176	3.61	-180	.13	2	.29	-177
100	.19	173	3.61	167	.13	- 2	.28	170
250	.17	163	3.58	147	.13	- 6	.25	152
500	.11	155	3.48	114	.14	-14	.16	131
750	.06	174	3.40	82	.14	-22	.06	146
1000	.09	-132	3.34	47	.15	-35	.14	-156
1250	.09	-173	3.49	11	.15	-50	.22	-179
1500	.24	9	3.60	- 48	.16	-76	.16	160



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