

# RF AMPLIFIER

## MODEL *TM9126*

Available as: TM9126, 4 Pin TO-8 (T4)  
 TN9126, 4 Pin Surface Mount (SM3)  
 FP9126, 4 Pin Flatpack (FP4)  
 BX9126, Connectorized Housing (H1)

### Features

- High Gain: 20.5 dB Typical
- Medium Output Power: +15 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)	20.5	18.5 Min.
Power @ 1 dB Comp. (dBm)	+15	+13 Min.
Reverse Isolation (dB)	-30	-27 Max.
VSWR In	<1.5:1	2.0:1 Max.
Out	<1.5:1	2.0:1 Max.
Noise Figure (dB)	<5.0	6.0 Max.
Power Vdc	+15	+15
mA	64	70 Max.

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

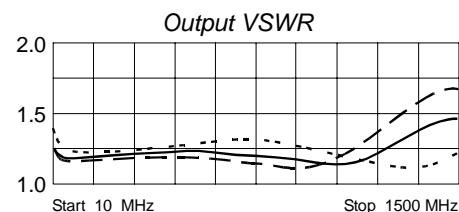
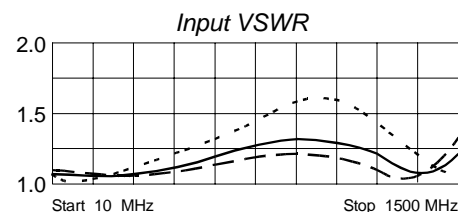
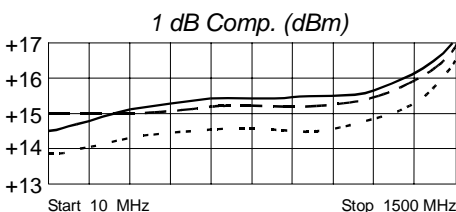
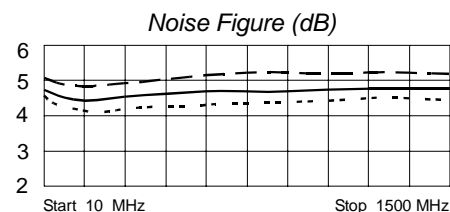
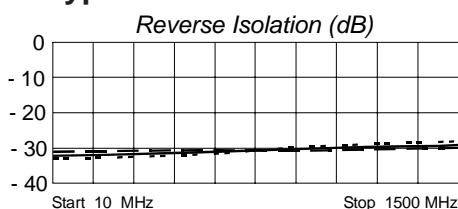
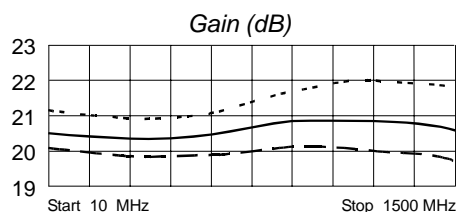
### Typical Intermodulation Performance at 25 ° C

Second Order Harmonic Intercept Point.....+51 dBm (Typ.)  
 Second Order Two Tone Intercept Point.....+45 dBm (Typ.)  
 Third Order Two Tone Intercept Point.....+28 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 ..... + 10 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	.02	50	10.68	5	.03	8	.12	145
50	.01	-33	10.64	-11	.03	-1	.08	166
100	.02	-74	10.62	-24	.03	-8	.08	172
300	.05	-154	10.50	-71	.03	-19	.09	166
500	.10	156	10.61	-119	.03	-35	.10	151
700	.17	110	10.95	-167	.03	-54	.10	133
900	.20	65	11.55	143	.03	-64	.07	117
1100	.19	20	11.83	89	.03	-83	.05	146
1300	.11	-30	11.55	32	.03	-100	.12	160
1500	.07	102	10.77	-27	.03	-125	.21	128



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