

# RF AMPLIFIER

## MODEL *TM9124*

Available as: TM9124, 4 Pin TO-8 (T4)  
 TN9124, 4 Pin Surface Mount (SM3)  
 FP9124, 4 Pin Flatpack (FP4)  
 BX9124, Connectorized Housing (H1)

### Features

- High Gain: 20 dB Typical
- High Reverse Isolation: -32 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 - 1500 MHz	10 - 1500 MHz
Gain (dB)	20	18 Min.
Power @ 1 dB Comp. (dBm)	+8	+6 Min.
Reverse Isolation (dB)	-32	-30
VSWR In	<1.4:1	2.0:1 Max.
Out	<1.4:1	2.0:1 Max.
Noise Figure (dB)	<4.0	5.5 Max.
Power Vdc	+15	+15
mA	34	38 Max.

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

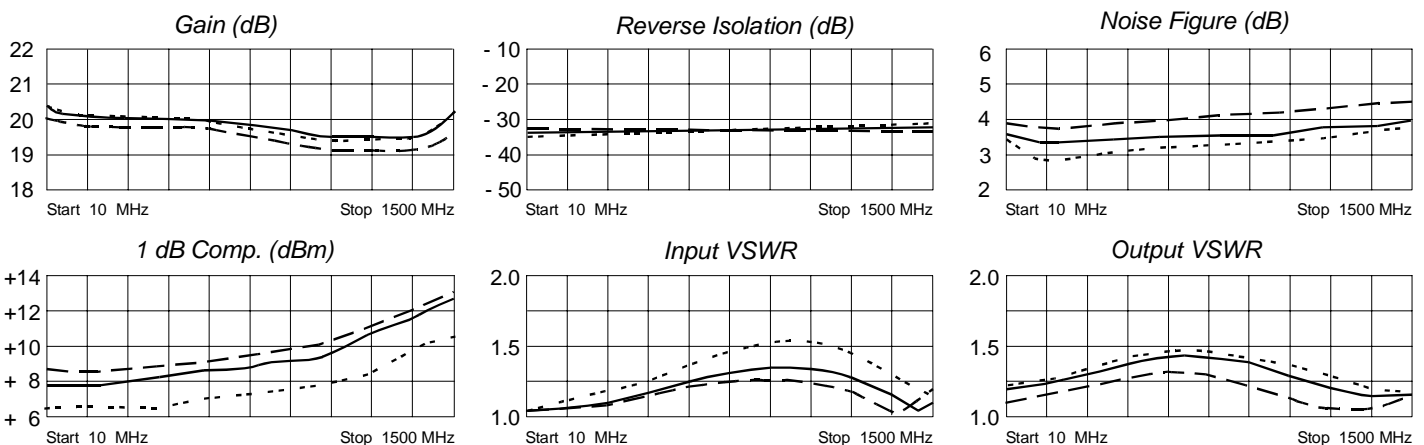
### Typical Intermodulation Performance at 25 °C

Second Order Harmonic Intercept Point.....+47 dBm (Typ.)  
 Second Order Two Tone Intercept Point.....+42 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 ..... + 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
10	.02	-38	10.48	-0	.02	0	.08	-170
50	.02	-50	10.26	-9	.02	-5	.08	-172
100	.02	-73	10.18	-18	.02	-7	.09	-171
200	.03	-118	10.12	-36	.02	-0	.10	-171
400	.07	-170	10.04	-72	.02	-4	.15	176
600	.12	150	10.10	-108	.02	-1	.18	151
800	.17	113	10.10	-145	.02	-14	.19	122
1000	.18	81	9.95	178	.02	-20	.16	88
1200	.14	52	9.75	141	.03	-37	.12	47
1400	.04	28	9.91	105	.03	-47	.08	-14
1500	.04	167	10.20	84	.02	-52	.08	-56



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