

RF AMPLIFIER

MODEL *TM5124*

Available as: TM5124, 4 Pin TO-8 (T4)
 TN5124, 4 Pin Surface Mount (SM3)
 FP5124, 4 Pin Flatpack (FP4)
 BX5124, Connectorized Housing (H1)

Features

- Superior Phase Noise Performance
- High Gain: 20.5 dB Typical
- High Output Power: +20 dBm Typical
- Operating Temp. - 55 °C to +85 °C

Specifications

CHARACTERISTIC		TYPICAL Ta= 25 °C	MIN/MAX Ta = -55 °C to +85 °C
Frequency (MHz)		20 - 200 MHz	20 - 200 MHz
Gain (dB)		20.5	19.5 Min.
Power @ 1 dB Comp. (dBm)		+20	+18 Min.
Reverse Isolation (dB)		-24	-23.5 Max.
VSWR	In	1.5:1	1.6:1 Max.
	Out	1.2:1	1.6:1 Max.
Noise figure (dB)		2.5	3.5Max.
Power	Vdc	+15	+15
	mA	53	58 Max.

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

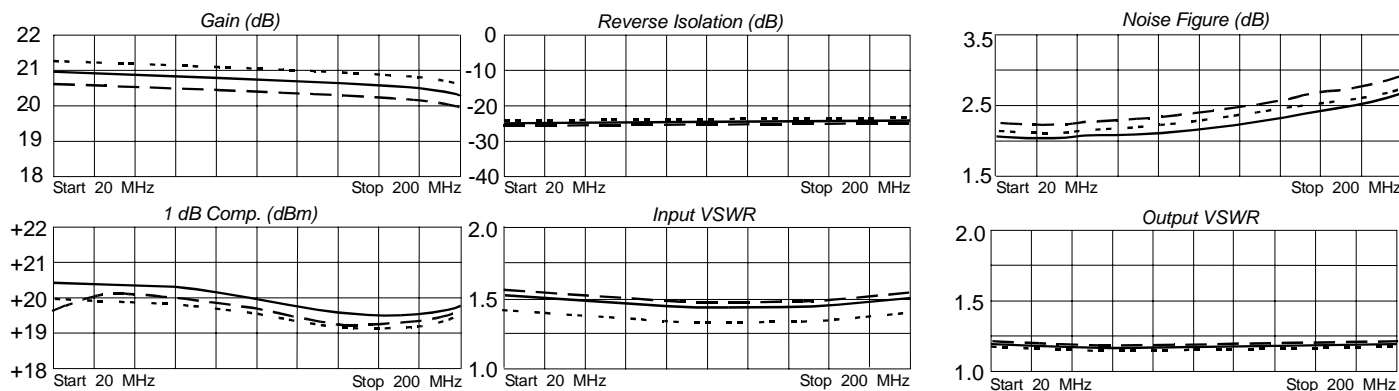
Typical Intermodulation Performance at 25 °C

Second Order Harmonic Intercept Point +49 dBm (Typ.)
 Second Order Two Tone Intercept Point +44 dBm (Typ.)
 Third Order Two Tone Intercept Point +34 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 + 18Volts
 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
20	.21	- 38	11.43	177	.06	178	.10	-42
50	.21	- 60	11.40	158	.06	156	.08	- 25
100	.23	-104	11.18	133	.06	131	.08	- 25
150	.25	-150	10.94	109	.06	107	.10	-36
200	.26	158	10.58	82	.06	83	.13	-64



Spectrum Microwave · 2144 Franklin Drive N.E. · Palm Bay, Florida 32905 · PH (888) 553-7531 · Fax (888) 553-7532 02/08/05

www.spectrummicrowave.com Spectrum Microwave (Europe) · 2707 Black Lake Place · Philadelphia, Pa. 19154 · PH (215) 464-4000 · Fax (215) 464-4001