

RF AMPLIFIER

MODEL *TM5304*

Available as: TM5304, 4 Pin TO-8 (T4)
 TN5304, 4 Pin Surface Mount (SM3)
 FP5304, 4 Pin Flatpack (FP4)
 BX5304, Connectorized Housing (H1)

Features

- High Gain: 19.5 dB Typical
- Low Noise Figure: <2.5 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	5-200 MHz	5-200 MHz
Gain (dB)	19.5	18.5 Min.
Power @ 1 dB Comp. (dBm)	+10.5	+9.5 Min.
Reverse Isolation (dB)	-26	-25 Max.
VSWR In	<1.75:1	2.0:1 Max.
Out	<1.75:1	2.0:1 Max.
Noise Figure (dB)	<2.5	3.0 Max.
Power Vdc	+15	+15 Min.
mA	24	25 Max.

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

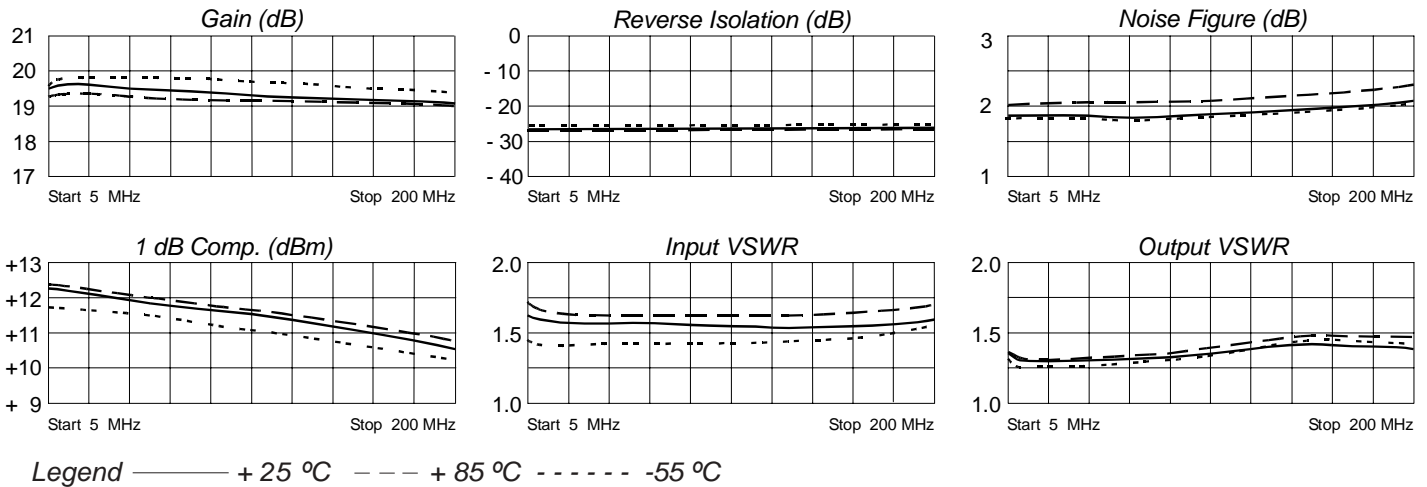
Typical Intermodulation Performance at 25 ° C

Second Order Harmonic Intercept Point +39 dBm (Typ.)
 Second Order Two Tone Intercept Point +33 dBm (Typ.)
 Third Order Two Tone Intercept Point +25 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 + 17Volts
 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



Linear S-Parameters

FREQ. MHz	S11		S21		S12		S22	
	Mag	Deg	Mag	Deg	Mag	Deg	Mag	Deg
5	.24	- 18	9.29	-173	.05	-172	.15	- 29
10	.23	- 14	9.37	180	.05	-179	.13	- 18
50	.22	- 32	9.27	160	.05	157	.13	- 19
100	.21	- 65	9.20	138	.05	137	.15	- 37
150	.21	-104	9.09	117	.05	111	.17	- 60
200	.24	-145	8.85	94	.05	89	.16	- 82
300	.37	150	7.82	45	.05	46	.07	-106



Spectrum Microwave · 2144 Franklin Drive N.E. · Palm Bay, Florida 32905 · PH (888) 553-7531 · Fax (888) 553-7532 6/17/04

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