

RF AMPLIFIER

MODEL *TM5104*

Available as: TM5104, 4 Pin TO-8 (T4)
 TN5104, 4 Pin Surface Mount (SM3)
 FP5104, 4 Pin Flatpack (FP4)
 BX5104, Connectorized Housing (H1)

Features

- Low Noise: 2dB Typical
- High Dynamic Range: +32dBm Typical IP₃
- 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 - 500 MHz	10 - 500 MHz
Gain (dB)	12.0	10.5 Min.
Power @ 1 dB Comp. (dBm)	+15.0	+13.0 Min.
Reverse Isolation (dB)	- 15.5	- 14.5 Max.
VSWR In	1.35:1	2.0:1 Max.
Out	1.50:1	2.0:1 Max.
Noise figure (dB)	2.0	3.5 Max.
Power Vdc	+15	+15
mA	35	38 Max.

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

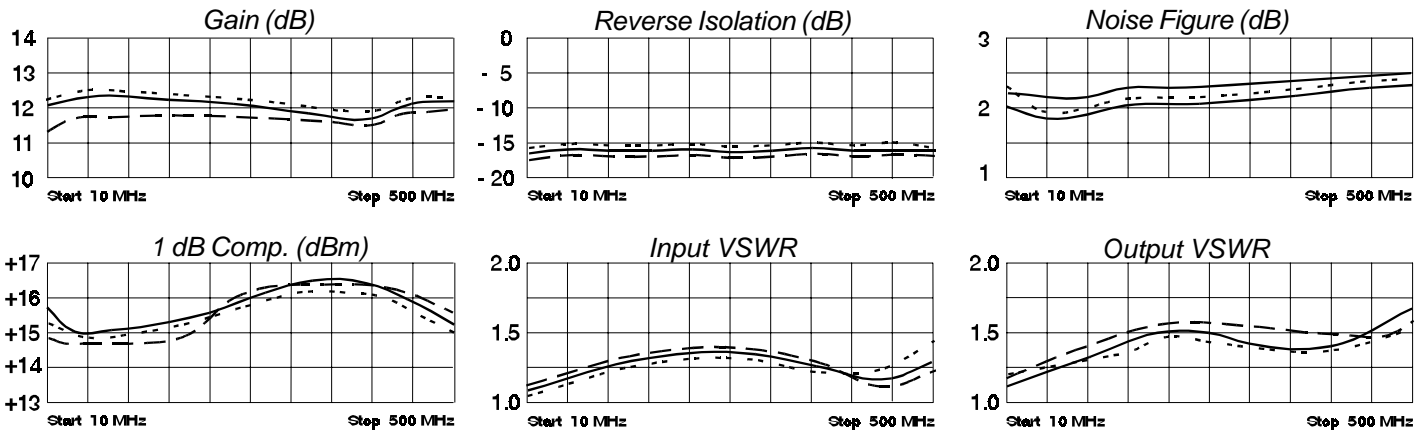
Typical Intermodulation Performance at 25 ° C

Second Order Harmonic Intercept Point +52(Typ.)
 Second Order Two Tone Intercept Point +46(Typ.)
 Third Order Two Tone Intercept Point +32(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 100 Milliwatts
 (1 Minute Max.)
 Maximum Peak Power 0.2 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
5	.07	-114	4.04	-161	.16	-160	.06	-115
10	.03	-144	4.18	-171	.17	-171	.03	-152
50	.04	112	4.21	174	.17	173	.04	122
100	.08	89	4.19	165	.17	163	.07	92
200	.16	60	4.17	148	.17	145	.13	56
300	.20	36	4.17	132	.17	129	.18	29
400	.23	15	4.25	116	.17	114	.22	5
500	.21	- 5	4.26	98	.18	99	.25	- 19



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