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 Figure: 2.0 dB Typical
- High Third Order Intercept: +32 dBm Typical
- Operating Temp. - 55 ºC to +85 ºC
- Environmental Screening Available

Typical Intermodulation Performance at 25 º C

Second Order Harmonic Intercept Point..... +52 dBm (Typ.)
Second Order Two Tone Intercept Point..... +46 dBm (Typ.)
Third Order Two Tone Intercept Point..... +32 dBm (Typ.)

Specifications

CHARACTERISTIC	TYPICAL Ta= 25 ºC	MIN/MAX Ta = -55 ºC to +85 ºC
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 Out	1.35:1 1.50:1	2.0:1 Max 2.0:1 Max
Noise Figure (dB)	2.0	3.5 Max
Power Vdc mA	+15 35	+15 38 Max

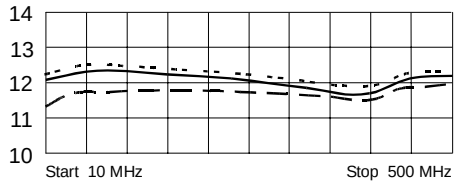
Note: Care should always be taken to effectively ground the case of each unit.

Maximum Ratings

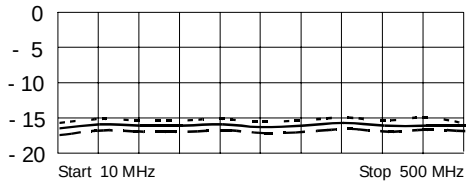
Ambient Operating Temperature ..... -55ºC to + 100 ºC
Storage Temperature ..... -62ºC to + 125 ºC
Case Temperature ..... + 125 ºC
DC Voltage ..... + 18 Volts
Continuous RF Input Power ..... + 13 dBm
Short Term RF Input Power.... 100 Milliwatts (1 Minute Max.)
Maximum Peak Power..... 0.2 Watt (3 µsec Max.)

Typical Performance Data

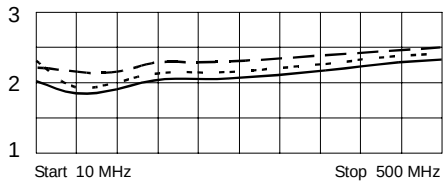
Gain (dB)



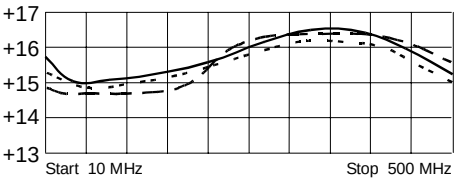
Reverse Isolation (dB)



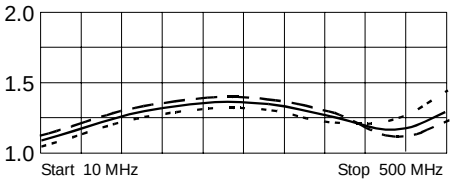
Noise Figure (dB)



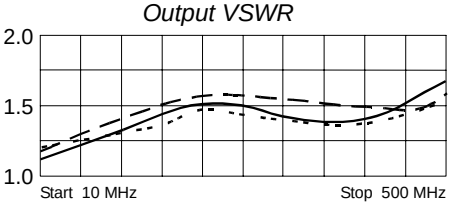
1 dB Comp. (dBm)



Input VSWR



Output VSWR



Legend ——— *+ 25 ºC* – – – *+ 85 ºC* - - - - - - *-55 ºC*

Linear S-Parameters

FREQ.	S11		S21		S12		S22	
MHz	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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