RF AMPLIFIER
MODEL *TM4002*

Available as: TM4002, 4 Pin TO-8 (T4)
TN4002, 4 Pin Surface Mount (SM3)
BX4002, Connectorized Housing (H1)

Features

- High Gain: 20 dB Typical
- Output Power: +19.5 dBm Typical
- Operating Temp. -55 ºC to +85 ºC
- Environmental Screening Available

Typical Intermodulation Performance at 25 º C

Second Order Harmonic Intercept Point ..... +51 dBm (Typ.)
Second Order Two Tone Intercept Point ..... +45 dBm (Typ.)
Third Order Two Tone Intercept Point ..... +35 dBm (Typ.)

Specifications

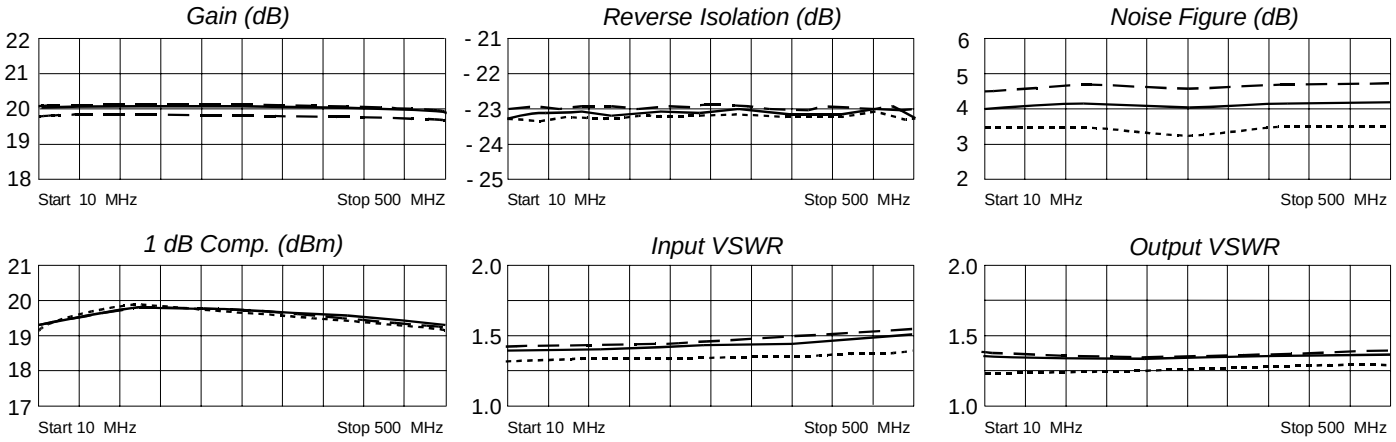
CHARACTERISTIC	TYPICAL Ta= 25 ºC	MIN/MAX Ta = -55 ºC to +85 ºC
Frequency	10 - 500 MHz	10 - 500 MHz
Gain (dB)	+20	+19 Min.
Power @ 1 dB Comp. (dBm)	+19.5	+18.5 Min.
Reverse Isolation (dB)	-23	-22 Max.
VSWR In Out	1.4:1 1.3:1	1.75:1 Max. 1.75:1 Max.
Noise Figure (dB)	4.0	5.0 Max.
Power Vdc mA	+15 80	+15 85 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 ..... + 16 Volts
Continuous RF Input Power ..... + 10 dBm
Short Term RF Input Power .... 200 Milliwatts (1 Minute Max.)
Maximum Peak Power ..... 0.5 Watt (3 µsec Max.)

Typical Performance Data



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

Linear S-Parameters

FREQ. MHZ	S11 Mag	S11 Deg	S21 Mag	S21 Deg	S12 Mag	S12 Deg	S22 Mag	S22 Deg
10	.12	-153	10.22	-175	.0707	6	.10	150
30	.12	-176	10.38	180	.0721	1	.07	164
50	.12	178	10.38	178	.0724	1	.07	169
100	.12	168	10.34	174	.0731	0	.07	165
200	.13	153	10.28	168	.0740	-1	.08	162
300	.13	138	10.18	161	.0725	-4	.08	151
400	.15	128	10.00	155	.0727	-6	.09	143
500	.16	117	9.86	149	.0723	-6	.10	137

10/18/06
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