RF AMPLIFIER
MODEL *TM3004*

Available as: TM3004, 4 Pin TO-8 (T4)
TN3004, 4 Pin Surface Mount (SM3)
BX3004, Connectorized Housing (H1)

Features

- High Gain: 22.8 dB Typical
- Low Noise Figure: 1.8 dB Typical
- Operating Temp. - 30 ºC to + 55 ºC
- Environmental Screening Available

Specifications

CHARACTERISTIC	TYPICAL Ta= 25 ºC	MIN/MAX Ta = -30 ºC to +55 ºC
Frequency	225 - 400 MHz	225 - 400 MHz
Gain (dB)	22.8	22.0 Min.
Power @ 1 dB Comp. (dBm)	+6.5	+5.5 Min.
Reverse Isolation (dB)	-26	-25 Max.
VSWR In Out	<1.25:1 <1.25:1	2.0:1 Max. 2.0:1 Max.
Noise Figure (dB)	1.8	2.5 Max.
Power Vdc mA	+15 15	+15 16 Max.

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

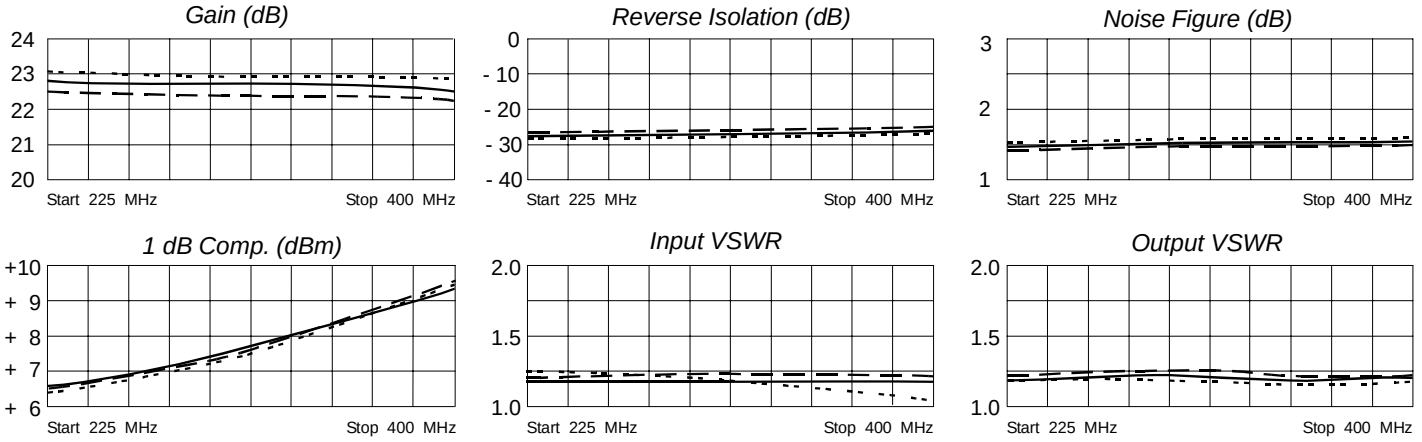
Typical Intermodulation Performance at 25 º C

Second Order Harmonic Intercept Point.....+26 dBm (Typ.)
Second Order Two Tone Intercept Point.....+20 dBm (Typ.)
Third Order Two Tone Intercept Point.....+18 dBm (Typ.)

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..... 50 Milliwatts (1 Minute Max.)
Maximum Peak Power..... 0.5 Watt (3 µsec Max.)

Typical Performance Data



Legend ——— *+ 25 ºC* – – – *+ 55 ºC* - - - - - - *-30 ºC*

Linear S-Parameters

FREQ. MHz	S11 Mag	S11 Deg	S21 Mag	S21 Deg	S12 Mag	S12 Deg	S22 Mag	S22 Deg
200	.08	26	13.85	113	.04	- 6	.09	- 28
225	.08	13	13.70	105	.04	- 9	.10	- 42
250	.09	3	13.63	96	.04	- 9	.10	- 55
300	.09	- 22	13.49	80	.05	-12	.11	- 87
350	.10	- 50	13.42	62	.05	-17	.10	-125
400	.10	- 83	13.29	42	.05	-19	.09	175
450	.10	-122	12.88	20	.05	-25	.14	107
500	.10	-167	11.80	- 3	.06	-33	.24	57

Spectrum Microwave · 2144 Franklin Drive N.E. · Palm Bay, Florida 32905 · PH (888) 553-7531 · Fax (888) 553-7532
www.spectrummicrowave.com *Spectrum Microwave (Europe) · 2707 Black Lake Place · Philadelphia, Pa. 19154 · PH (215) 464-4000 · Fax (215) 464-4001*

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