

RF AMPLIFIER

MODEL *TM3004*

Available as: TM3004, 4 Pin TO-8 (T4)
 TN3004, 4 Pin Surface Mount (SM3)
 BX3004, Connectorized Housing (H1)
 PN3004, Reduced Size Surface Mount (SM11)

Features

- High Gain: 22.8 dB Gain Typical
- Low Noise Figure: < 2 dB Typical
- Operating Temp. - 30 °C to + 55 °C
- Environmental Screening Available

Specifications

CHARACTERISTIC	TYPICAL Ta = 25 °C	MIN/MAX Ta = -30 °C to +55 °C
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	<1.25:1	2.0:1 Max.
VSWR Out	<1.25:1	2.0:1 Max.
Noise figure (dB)	1.8	2.5 Max.
Power Vdc	+15	+15
mA	15	16 Max.

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

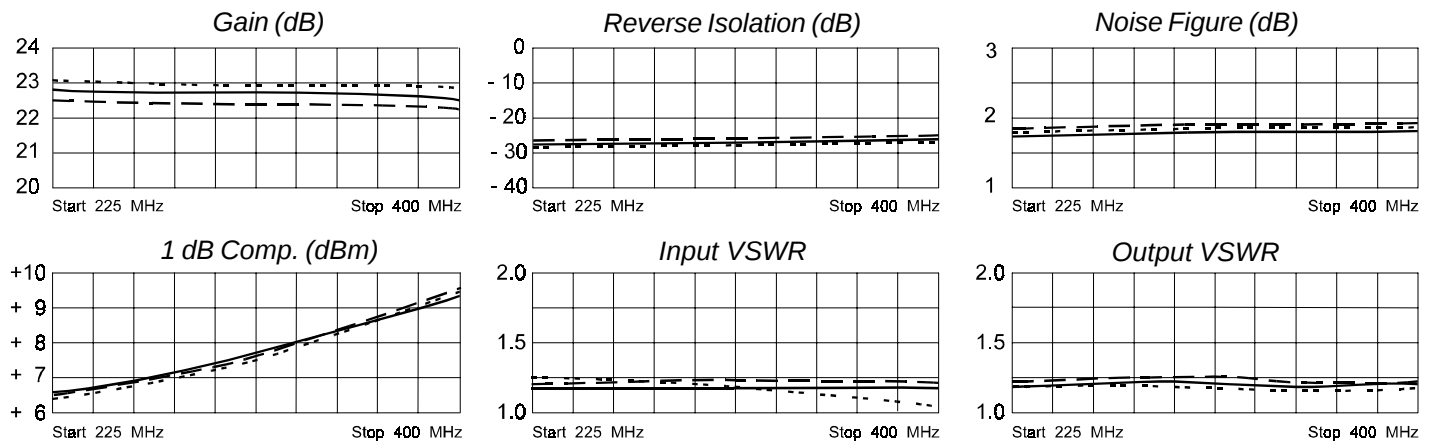
Typical Intermodulation Performance at 25 °C

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

Maximum Ratings

Ambient Operating Temperature -55°C to + 100 °C
 Storage Temperature -62°C to + 125 °C
 Case Temperature + 125 °C
 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 °C - - - + 55 °C -30 °C

Linear S-Parameters

FREQ. MHz	S11		S21		S12		S22	
	Mag	Deg	Mag	Deg	Mag	Deg	Mag	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

Amplifonix

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