RF AMPLIFIER
MODEL *TM4002PM*

Available as: TM4002PM, 4 Pin TO-8 (T4)
TN4002PM, 4 Pin Surface Mount (SM3)
BX4002PM, Connectorized Housing (H1)

Features

- High Gain: 20 dB Typical
- Output Power: +19.5 dBm Typical
- Low 15 Volt Supply
- Operating Temp. -55 ºC to +85 ºC

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	1.4:1	1.75:1 Max.
	Out	1.3:1	1.75:1 Max.
Noise Figure (dB)		4.0	5.0 Max.
Power	Vdc	+15	+15
	mA	80	85 Max.

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

Typical Intermodulation Performance at 25 ºC

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.)

Absolute Maximum (No Damage) Ratings

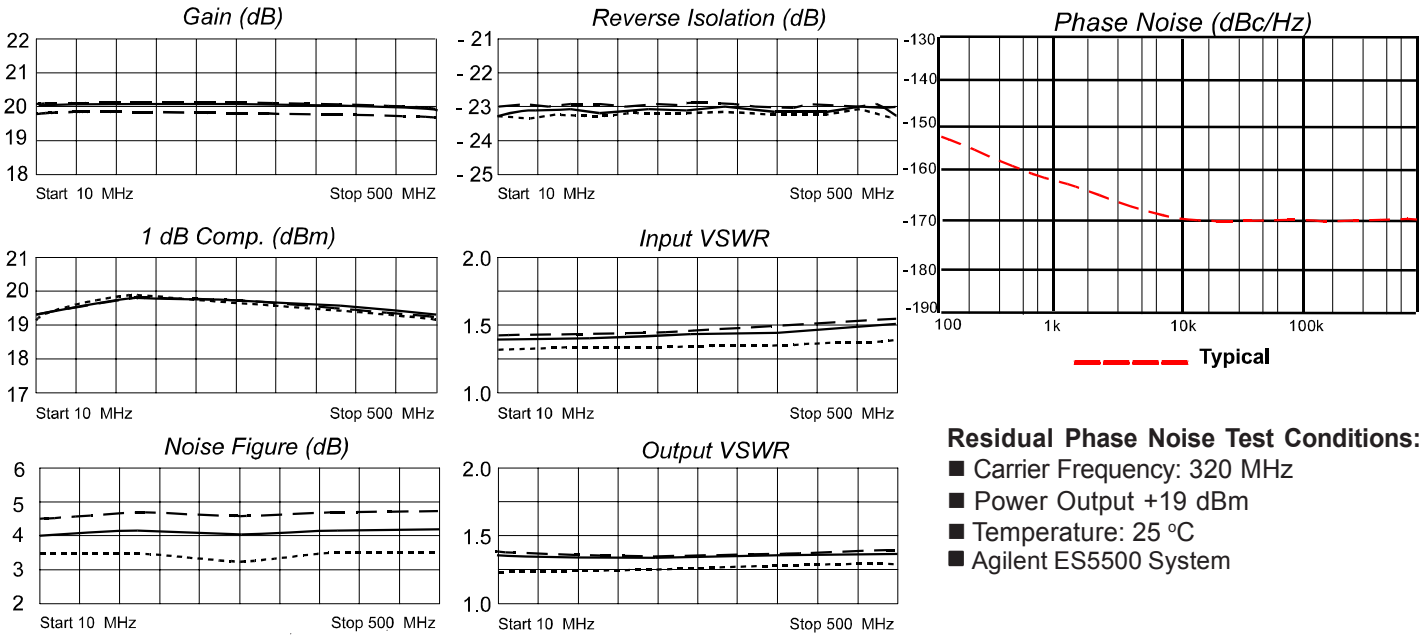
Ambient Operating Temperature .....-55ºC to +100 ºC
Storage Temperature .....-62ºC to +125 ºC
Case Temperature .....+125 ºC
DC Voltage ..... +18 Volts
Continuous RF Input Power ..... +10 dBm
Short Term RF Input Power .... 200 Milliwatts (1 Minute Max.)
Maximum Peak Power ..... 0.5 Watt (3 µsec Max.)

Guaranteed @ 25 ºC (320 MHz) Phase Noise Performance (dBc/Hz)*

Frequency	Typical	Guarantee (min.)
100 Hz	152	150
1 kHz	162	160
10 kHz	170	165
100 kHz	170	165
1 MHz	170	165

*Note: Phase Noise Performance typically tested at midband. Bandedge performance may vary.

Typical Performance Data



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

Residual Phase Noise Test Conditions:

- Carrier Frequency: 320 MHz
- Power Output +19 dBm
- Temperature: 25 ºC
- Agilent ES5500 System

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