

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 °C to +85 °C

Specifications

CHARACTERISTIC	TYPICAL Ta= 25 °C	MIN/MAX Ta = -55 °C to +85 °C
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 °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.)

Absolute Maximum (No Damage) Ratings

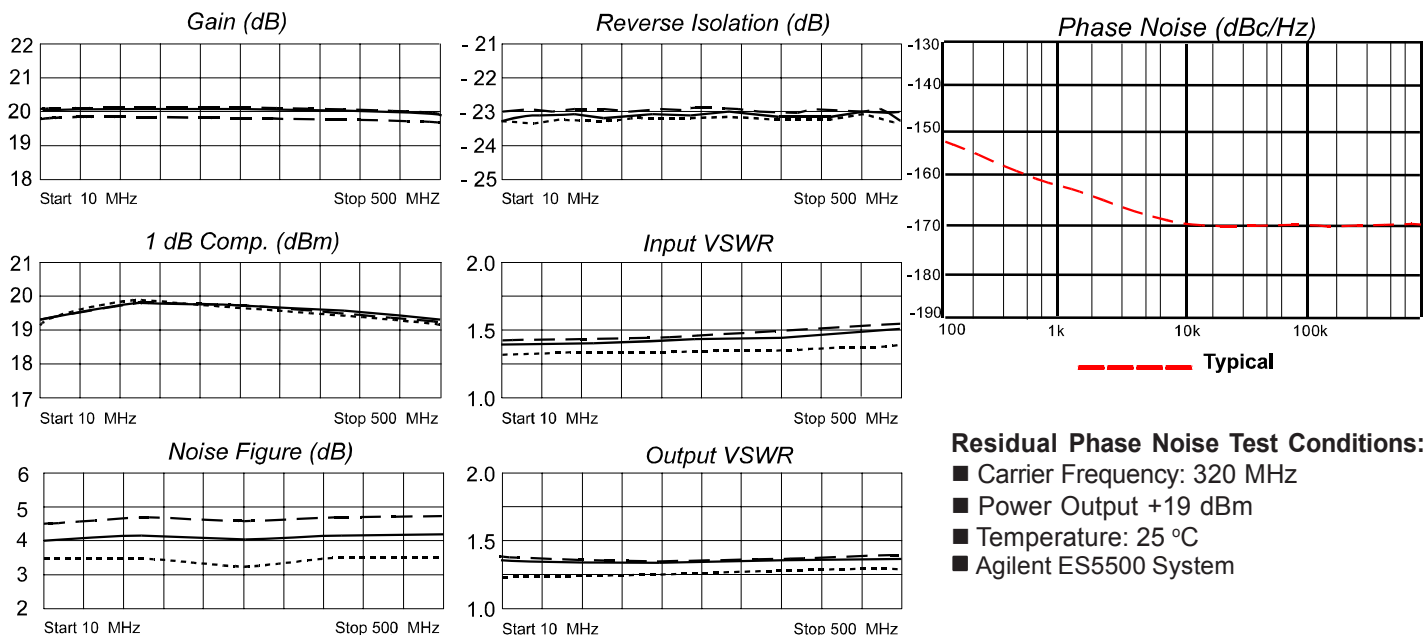
Ambient Operating Temperature -55°C to +100 °C
 Storage Temperature -62°C to +125 °C
 Case Temperature +125 °C
 DC Voltage +18 Volts
 Continuous RF Input Power +10 dBm
 Short Term RF Input Power 200 Milliwatts (1 Minute Max.)
 Maximum Peak Power 0.5 Watt (3 µsec Max.)

Guaranteed @ 25 °C (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 °C - - - - +85 °C -55 °C

Residual Phase Noise Test Conditions:

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



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