

RF AMPLIFIER

MODEL *TM3098PM*

Available as: TM3098PM, 4 Pin TO-8 (T4)
 TN3098PM, 4 Pin Surface Mount (SM3)
 FP3098PM, 4 Pin Flatpack (FP4)
 BX3098PM, Connectorized Housing (H1)

Features

- Superior Phase Noise Performance
- High Output Power: +30 dBm Typical
- Operating Temp. -55 °C to +85 °C
- Environmental Screening Available

Typical Intermodulation Performance at 25 °C

Second Order Harmonic Intercept Point +66 dBm (Typ.)
 Second Order Two Tone Intercept Point +63 dBm (Typ.)
 Third Order Two Tone Intercept Point +45 dBm (Typ.)

Maximum Ratings

Ambient Operating Temperature -55°C to +100 °C
 Storage Temperature -62°C to +125 °C
 Case Temperature +125 °C
 DC Voltage +17 Volts
 Continuous RF Input Power +15 dBm
 Short Term RF Input Power 100 mW (1 Minute Max.)
 Maximum Peak Power 0.2 Watt (3 µsec Max.)

Specifications

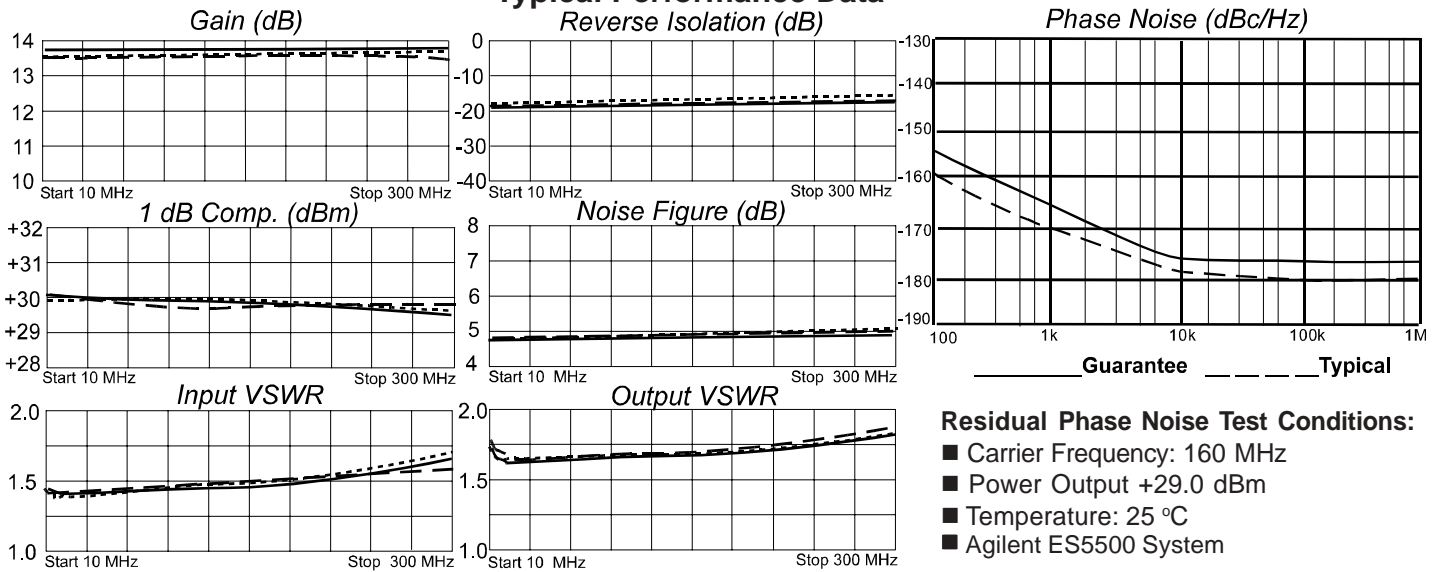
CHARACTERISTIC	TYPICAL Ta= 25 °C	MIN/MAX Ta = -55 °C to +85 °C
Frequency (MHz)	10 - 300 MHz	10 - 250 MHz
Gain (dB)	13.5	13 Min.
Power @ 1 dB Comp. (dBm)	+30	+29 Min.
Reverse Isolation (dB)	-17	-16 Max.
VSWR In	1.5:1	2.0:1 Max.
VSWR Out	1.75:1	2.0:1 Max.
Noise Figure (dB)	5.0	6.0 Max.
Power Vdc	+15	+15
Power mA	240	250 Max.

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

Guaranteed Phase Noise Performance (dBc/Hz) ✱

Frequency	Typical	Guarantee
10 Hz	-150	-145
100 Hz	-160	-155
1 kHz	-170	-165
10 kHz	-178	-175
100 kHz	-180	-175
1 MHz	-180	-175

Typical Performance Data



Residual Phase Noise Test Conditions:

- Carrier Frequency: 160 MHz
- Power Output +29.0 dBm
- Temperature: 25 °C
- Agilent ES5500 System

Legend ——— +25 °C - - - +85 °C ····· -55 °C

