

# 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

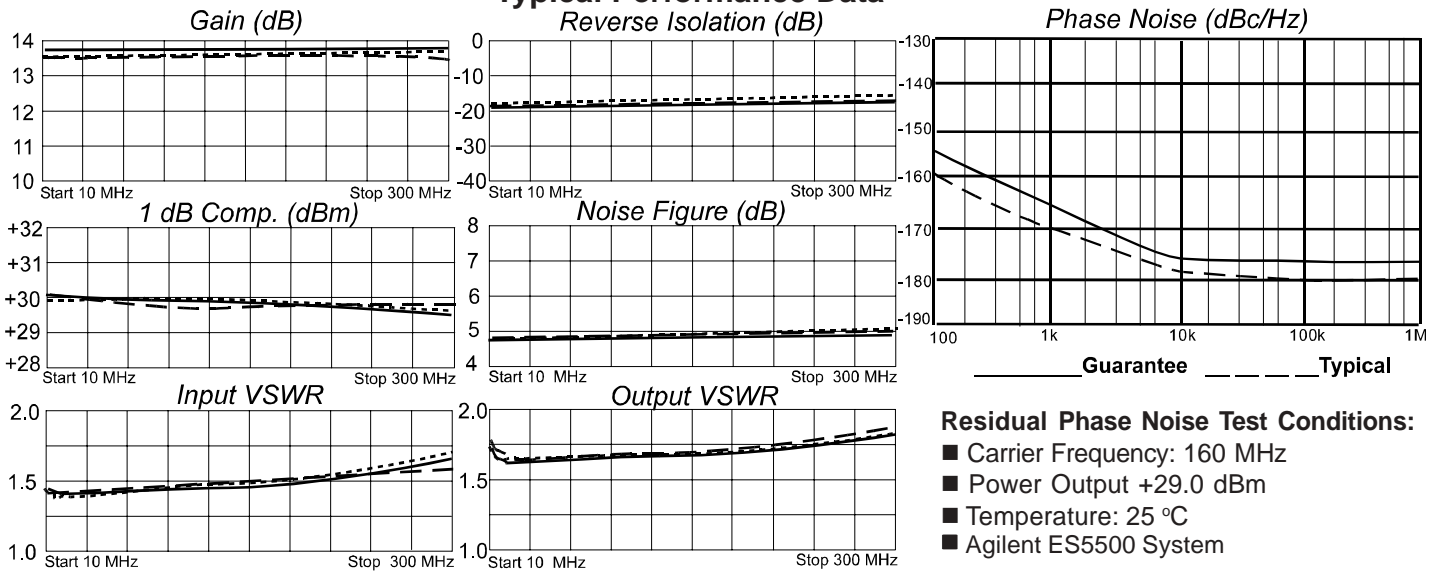
CHARACTERISTIC	TYPICAL Ta= 25 °C	MIN/MAX Ta = -55 °C to +85 °C
Frequency (MHz)	10 - 300 MHz	10 - 250 MHz
Gain (dB)	13.5	13 Min.
Power @ 1 dB Comp. (dBm)	+30	+29 Min.
Reverse Isolation (dB)	-17	-16 Max.
VSWR In	1.5:1	2.0:1 Max.
Out	1.75:1	2.0:1 Max.
Noise Figure (dB)	5.0	6.0 Max.
Power Vdc	+15	+15
mA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

