

# RF AMPLIFIER

## MODEL *TM3115PM*

Available as: TM3115PM, 4 Pin TO-8 (T4)  
 TN3115PM, 4 Pin .450" sq. Surface Mount (SM3)  
 BXF3115PM, SMA Connectorized Housing (H1)

### Features

- Low Phase Noise Bipolar Design
- High Output Power: 27 dBm Typical
- Operating Temp. -55 °C to +85 °C
- Environmental Screening Available

### Specifications

CHARACTERISTIC	TYPICAL Ta= 25 °C	MIN/MAX Ta = -55 °C to +85 °C
Frequency	10 - 1400 MHz	10 - 1400 MHz
Gain	13.0 dB	11.5 dB Min.
Power @ 1 dB Comp. (10-1000 MHz) (1000-1200 MHz) (1200-1400 MHz)	27 dBm 24 dBm 22 dBm	25 dBm Min. 22 dBm Min. 20 dBm Min.
Reverse Isolation (dB)	-17 dB	-
VSWR In	1.8:1	2.2:1 Max.
VSWR Out	1.8:1	2.0:1 Max.
Noise Figure (dB)	8.0 dB	10.0 dB Max.
Power Vdc	+15 volts	+15 volts
Power mA	195 mA	210 mA Max.

Revision 9-3-2013

### Typical Intermodulation Performance at 25 °C

Second Order Harmonic Intercept Point ..... +40 dBm (Typ.)  
 Second Order Two Tone Intercept Point ..... +35 dBm (Typ.)  
 Third Order Two Tone Intercept Point ..... +30 dBm (Typ.)

### Absolute (No Damage) Maximum Ratings

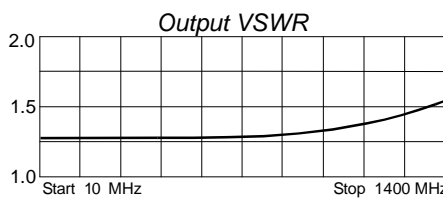
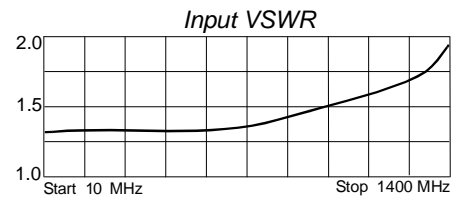
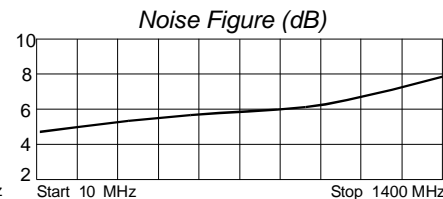
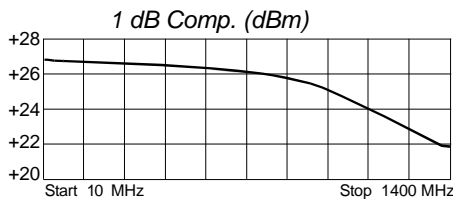
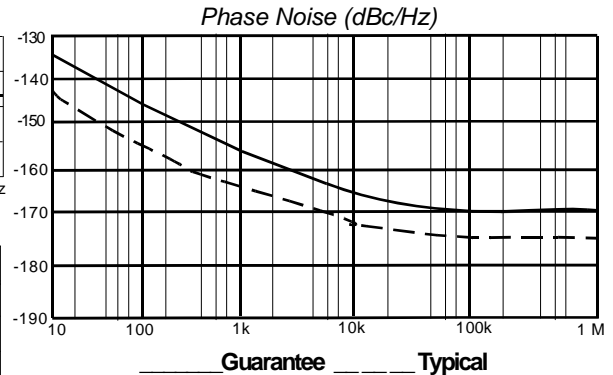
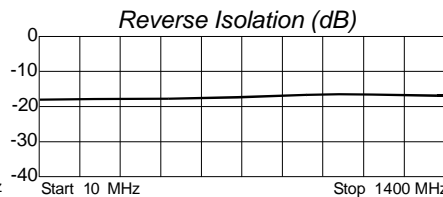
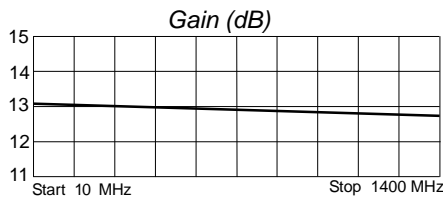
Ambient Operating Temperature ..... -55°C to +100 °C  
 Storage Temperature ..... -62°C to +125 °C  
 Case Temperature ..... +125 °C  
 DC Voltage ..... +17 Volts  
 Continuous RF Input Power ..... +15 dBm  
 Short Term RF Input Power ..... 50 Milliwatts (1 Minute Max.)  
 Maximum Peak Power ..... 0.1 Watt (3 μsec Max.)

### Guaranteed Phase Noise Performance (dBc/Hz)

Frequency	Typical	Guarantee
10 Hz	-143	-135
100 Hz	-153	-145
1 kHz	-167	-155
10 kHz	-170	-165
100 kHz	-175	-170
1 MHz	-175	-170

Note: Care should always be taken to effectively ground the case of each unit.  
 (Measured in a 50 Ohm system @ +15 Volts DC nominal unless otherwise noted)

### Typical Performance Data



### \* Residual Phase Noise Test Conditions:

- Carrier Frequency: 1280 MHz
- Power Output: +24.0 dBm
- Temperature: 25 °C
- Agilent ES5500 System

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

