RF AMPLIFIER
MODEL *TM3131PM*

Available as: TM3131PM, 4 Pin TO-8 (T4)
TN3131PM, 4 Pin Surface Mount (SM3)
BX3131PM, Connectorized Housing (H1)

Features

- Superior Phase Noise Performance
- High Output Power: +27 dBm Typical
- Operating Temp. -55 ºC to +85 ºC
- No External Circuity Needed
- Environmental Screening Available

Specifications

CHARACTERISTIC	TYPICAL Ta= 25 ºC	MIN/MAX Ta = -55 ºC to +85 ºC
Frequency (MHz)	10 MHz to 150 MHz	10 MHz to 150 MHz
Gain (dB)	10.5 Typ	9.5 Min
Power @ 1 dB Comp. (dBm)	+27	+26 Min.
Reverse Isolation (dB)	-17	---
VSWR In Out	1.5:1 1.5:1	2.0:1 Max. 2.0:1 Max.
Noise Figure (dB)	5.5	6.5 Max.
Power Vdc mA	+15 200	+15 210 Max.

Note: Care should always be taken to effectively ground the case of each unit.
*Note: Phase Noise Performance typically tested at midband. Bandedge performance may vary.

Revision 2-7-2017

Typical Intermodulation (Output) Performance (25 ºC)

Second Order Harmonic Intercept Point ..... +55 dBm (Typ.)
Second Order Two Tone Intercept Point ..... +50 dBm (Typ.)
Third Order Two Tone Intercept Point ..... +40 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 ..... +17 Volts
Continuous RF Input Power ..... +17 dBm
Short Term RF Input Power ..... 100 mW (1 Minute Max.)
Maximum Peak Power ..... 0.2 Watt (3 µsec Max.)

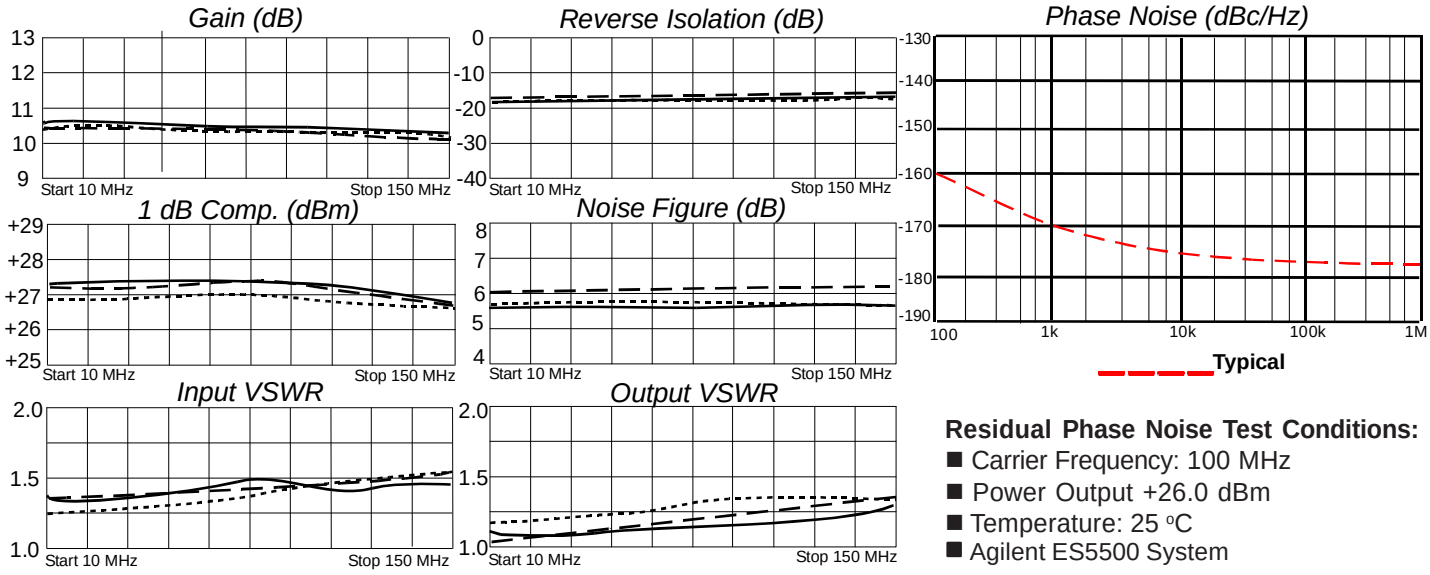
Phase Noise Performance Data

Frequency	Typical	Guarantee
100 Hz	-160	-155
1 kHz	-170	-165
10 kHz	-175	-170
100 kHz	-175	-170
1 MHz	-175	-170

Guaranteed @ 25 ºC (100 MHz) Phase Noise Performance (dBc/Hz)*

Note: Unit requires a 50 ohm termination at all times.

Typical Performance Data



Residual Phase Noise Test Conditions:

- Carrier Frequency: 100 MHz
- Power Output +26.0 dBm
- Temperature: 25 ºC
- Agilent ES5500 System

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

Spectrum Microwave · 2144 Franklin Drive N.E. · Palm Bay, Florida 32905 · PH (888) 553-7531 · Fax (888) 553-7532

www.SpectrumMicrowave.com *Spectrum Microwave · 2707 Black Lake Place · Philadelphia, Pennsylvania 19154 · PH (215) 464-4000 · Fax (215) 464-4001*