

# RF AMPLIFIER

## MODEL *TM6134PM*

Available as: TM6134PM, 4 Pin TO-8 (T4)  
 TN6134PM, 4 Pin Surface Mount (SM3)  
 FP6134PM, 4 Pin Flatpack (FP4)  
 BX6134PM, Connectorized Housing (H1)

### Features

- Superior Phase Noise Performance
- High Output Power: +26 dBm Typical
- High IP3 : +39 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 (MHz)	20 - 200 MHz	20 - 200 MHz
Gain (dB)	14.3	12.5
Power @ 1 dB Comp. (dBm)	+26.0	+23.0 Min.
Reverse Isolation (dB)	- 17	- 15 Max.
VSWR In	1.60:1	2.5:1 Max.
Out	1.35:1	2.5:1 Max.
Noise Figure (dB)	4.0	6.0 Max.
Power Vdc	+15	+15
mA	90	110 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 ..... +58 dBm (Typ.)  
 Second Order Two Tone Intercept Point ..... +54 dBm (Typ.)  
 Third Order Two Tone Intercept Point ..... +39 dBm (Typ.)

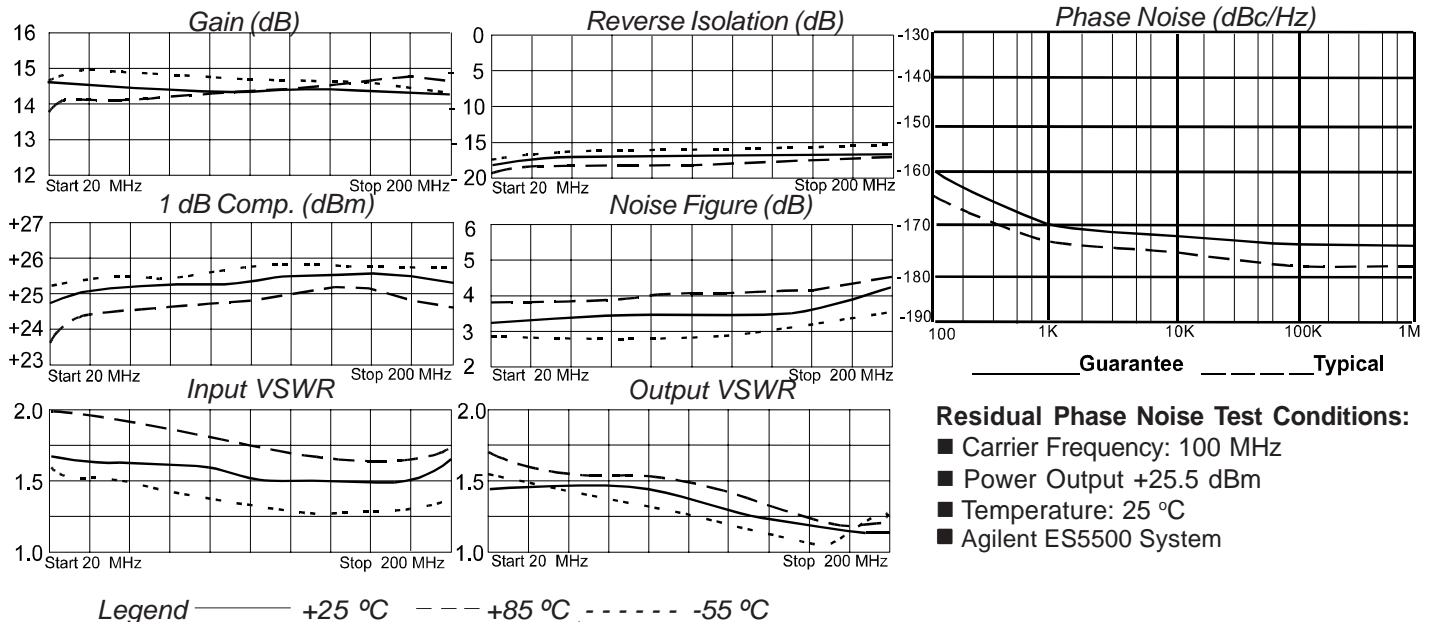
### Maximum Ratings

Ambient Operating Temperature ..... -55°C to +100 °C  
 Storage Temperature ..... -62°C to +125 °C  
 Case Temperature ..... +125 °C  
 DC Voltage ..... +18 Volts  
 Continuous RF Input Power ..... +18 dBm  
 Short Term RF Input Power ..... 50 mW (1 Minute Max.)  
 Maximum Peak Power ..... 0.5 Watt (3 µsec Max.)

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

Frequency	Typical	Guarantee (min.)
100 Hz	-165	-160
1 kHz	-173	-170
10 kHz	-175	-172
100 kHz	-178	-174
1 MHz	-178	-174

### Typical Performance Data



### Residual Phase Noise Test Conditions:

- Carrier Frequency: 100 MHz
- Power Output +25.5 dBm
- Temperature: 25 °C
- Agilent ES5500 System

### Linear S-Parameters

FREQ. MHz	S11		S21		S12		S22	
	Mag	Deg	Mag	Deg	Mag	Deg	Mag	Deg
20	.25	-179	5.27	180	.13	179	.17	7
50	.24	175	5.23	165	.13	163	.17	-10
100	.23	173	5.19	146	.13	144	.13	-34
150	.26	178	5.17	127	.14	125	.07	-80
200	.33	178	5.11	108	.15	107	.08	162

