

RF AMPLIFIER

MODEL *TM6162PM*

Available as: TM6162PM, 4 Pin TO-8 (T4)
 TN6162PM, 4 Pin Surface Mount (SM3)
 FP6162PM, 4 Pin Flatpack (FP4)
 BX6162PM, Connectorized Housing (H1)

Features

- Superior Phase Noise Performance
- Output Power: +16 dBm Typical
- Low Noise Figure: <1.4 dB 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)	5 - 125 MHz	10 - 100 MHz
Gain (dB)	12.7	11.5 Min.
Power @ 1 dB Comp. (dBm)	+16.0	+14.0 Min.
Reverse Isolation	-15.5	- 15 Max.
VSWR In	<1.5:1	2.0:1 Max.
VSWR Out	<1.5:1	2.0:1 Max.
Noise Figure (dB)	<1.4	2.0 Max.
Power Vdc	+15	+15
mA	13.5	16 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 +52 dBm (Typ.)
 Second Order Two Tone Intercept Point +46 dBm (Typ.)
 Third Order Two Tone Intercept Point +32 dBm (Typ.)

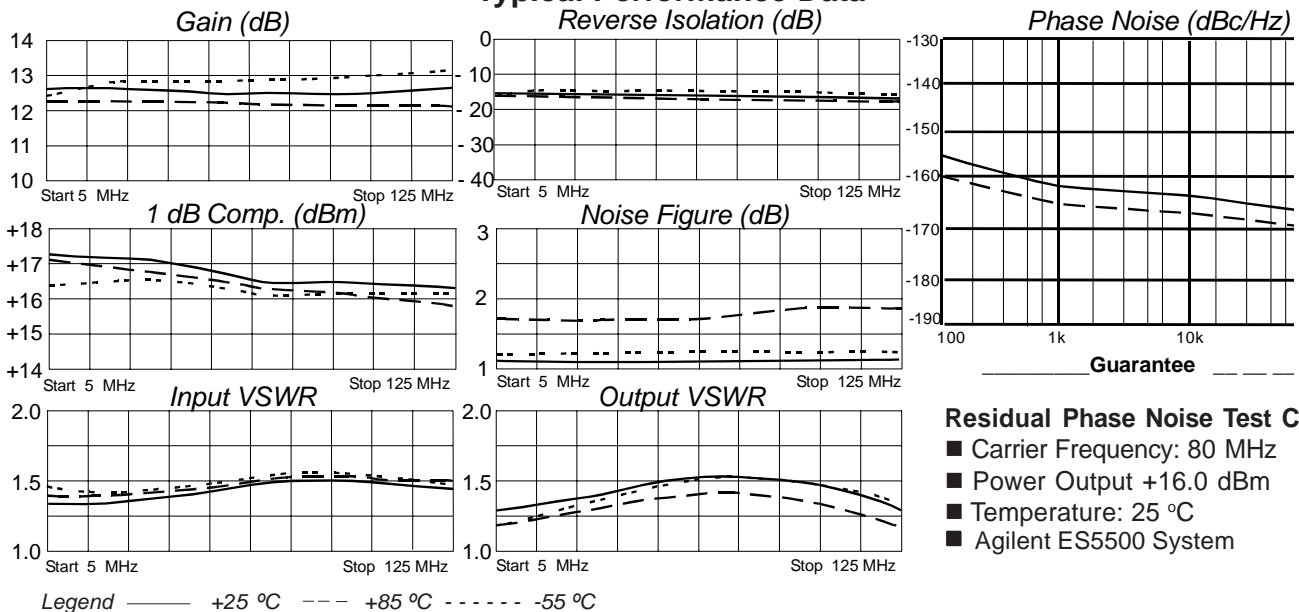
Maximum Ratings

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 +10 dBm
 Short Term RF Input Power 50 mW (1 Minute Max.)
 Maximum Peak Power 0.2 Watt (3 µsec Max.)

Guaranteed Phase Noise Performance (dBc/Hz) *

Frequency	Typical	Guarantee
100 Hz	-160	-156
1 kHz	-165	-162
10 kHz	-166	-163
100 kHz	-170	-167
1 MHz	-172	-168

Typical Performance Data



Residual Phase Noise Test Conditions:

- Carrier Frequency: 80 MHz
- Power Output +16.0 dBm
- Temperature: 25 °C
- Agilent ES5500 System

Linear S-Parameters

FREQ. MHz	S11		S21		S12		S22	
	Mag	Deg	Mag	Deg	Mag	Deg	Mag	Deg
5	.15	-179	4.27	4	.17	2	.10	12
10	.15	-180	4.32	- 4	.17	- 4	.12	- 12
50	.19	179	4.29	- 43	.16	- 41	.20	- 96
100	.19	162	4.31	- 92	.14	- 87	.12	-167
150	.40	-175	3.46	-161	.08	-153	.47	- 29



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