

RF AMPLIFIER

MODEL *TM6155PM*

Available as: TM6155PM, 4 Pin TO-8 (T4)
 TN6155PM, 4 Pin Surface Mount (SM3)
 FP6155PM, 4 Pin Flatpack (FP4)
 BX6155PM, Connectorized Housing (H1)

Features

- Superior Phase Noise Performance
- Higher Output Power: 19.5 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	300 - 1000 MHz	300 - 1000 MHz
Gain (dB)	12.5	10.5 Min.
Power @ 1 dB Comp. (dBm)	19.5	18 Min.
Reverse Isolation (dB)	-13	-12 Max.
VSWR In	<1.5:1	2.0:1 Max.
VSWR Out	<2.0:1	3.0:1 Max.
Noise Figure (dB)	<4.0	5.5 Max.
Power Vdc	+15	+15
mA	50	60 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 +51 dBm (Typ.)
 Second Order Two Tone Intercept Point +45 dBm (Typ.)
 Third Order Two Tone Intercept Point +33 dBm (Typ.)

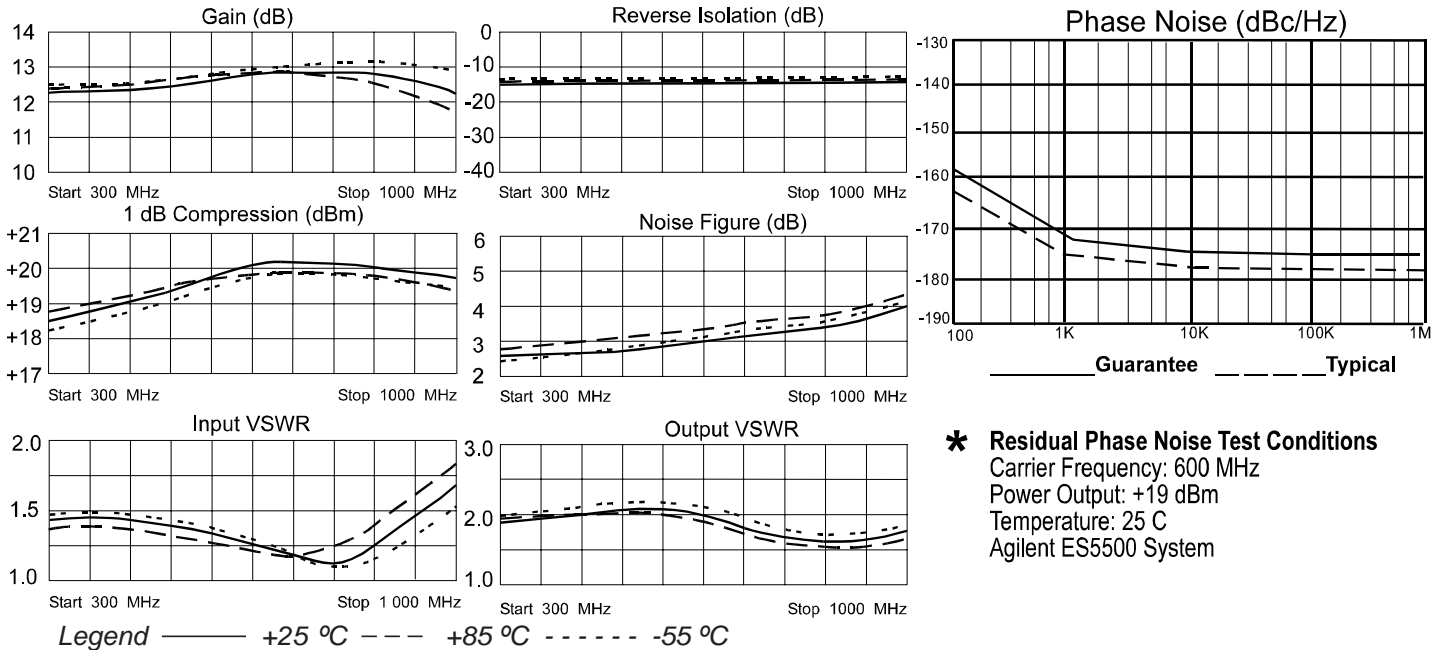
Maximum Ratings

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 Milliwatts (1 Minute Max.)
 Maximum Peak Power 0.5 Watt (3 μsec Max.)

Guaranteed Phase Noise Performance (dBc/Hz)

Frequency	Typical	Guarantee
100 Hz	-160	-156
1 kHz	-174	-170
10 kHz	-177	-174
100 kHz	-177	-174
1 MHz	-177	-174

Typical Performance Data



* Residual Phase Noise Test Conditions

Carrier Frequency: 600 MHz
 Power Output: +19 dBm
 Temperature: 25 C
 Agilent ES5500 System

Linear S-Parameters

FREQ. MHz	S11		S21		S12		S22	
	Mag	Deg	Mag	Deg	Mag	Deg	Mag	Deg
200	.18	91	4.15	144	.17	148	.28	8
300	.18	56	4.16	126	.18	130	.31	1
400	.18	23	4.16	107	.18	115	.33	-9
500	.17	-10	4.26	88	.18	99	.34	-23
600	.13	-47	4.34	69	.19	83	.33	-39
800	.08	172	4.42	25	.21	48	.25	-87
1000	.25	52	4.15	-23	.22	7	.21	173



Spectrum Microwave · 2144 Franklin Drive N.E. · Palm Bay, Florida 32905 · PH (888) 553-7531 · Fax (888) 553-7532 3/31/04

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