

RF AMPLIFIER

MODEL *TM5155PM*

Available as: TM5155PM, 4 Pin TO-8 (T4)
 TN5155PM, 4 Pin Surface Mount (SM3)
 FP5155PM, 4 Pin Flatpack (FP4)
 BX5155PM, Connectorized Housing (H1)

Features

- High 3rd Order Intercept: +37 dBm Typical
- Medium Gain: 15 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	5 - 300 MHz	5 - 300 MHz
Gain (dB)	15.0	15.0 ± 1.0 Min.
Power @ 1 dB Comp. (dBm)	>+22	+21 Min.
Reverse Isolation (dB)	- 17	- 16 Max.
VSWR In	<1.75:1	2.0:1 Max.
VSWR Out	<1.75:1	2.0:1 Max.
Noise figure (dB)	<5	6.0 Max.
Power Vdc	+15	+15 Max.
mA	85	90 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 +54 (Typ.)
 Second Order Two Tone Intercept Point +48 (Typ.)
 Third Order Two Tone Intercept Point +37 (Typ.)

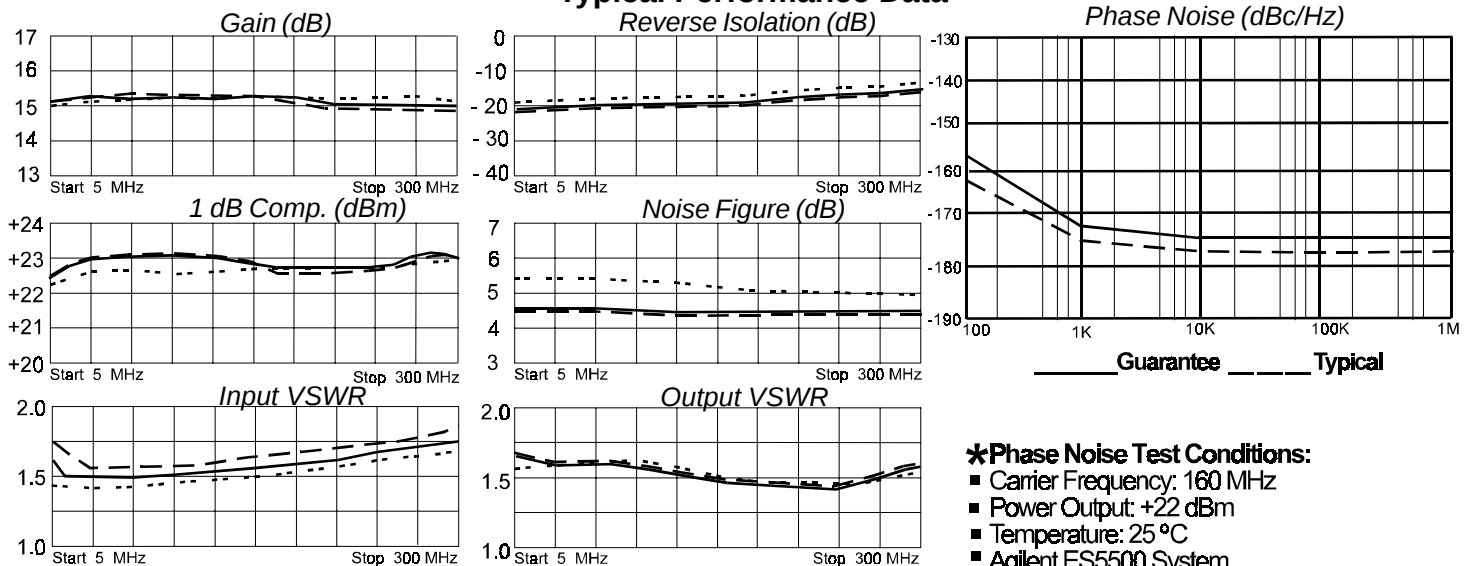
Maximum Ratings

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 + 13 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	- 162	- 158
1 KHz	- 175	- 172
10 KHz	- 178	- 175
100 KHz	- 178	- 175
1 MHz	- 178	- 175

Typical Performance Data



Linear S-Parameters

FREQ. MHz	Mag	S11 Deg	Mag	S21 Deg	Mag	S12 Deg	Mag	S22 Deg
5	.24	-30	5.73	-166	.090	15	.25	53
10	.20	-20	5.86	-175	.092	8	.23	25
50	.19	-19	5.86	168	.094	5	.22	-15
100	.19	-33	5.90	152	.101	4	.19	-41
150	.20	-50	5.88	137	.108	5	.18	-68
200	.21	-71	5.87	122	.120	3	.15	-105
300	.24	-111	5.59	91	.143	-5	.18	163

*Phase Noise Test Conditions:

- Carrier Frequency: 160 MHz
- Power Output: +22 dBm
- Temperature: 25 °C
- Agilent ES5500 System

Amplifonix

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