

RF AMPLIFIER

MODEL *TM5150PM*

Available as: TM5150PM, 4 Pin TO-8 (T4)
 TN5150PM, 4 Pin Surface Mount (SM3)
 FP5150PM, 4 Pin Flatpack (FP4)
 BX5150PM, Connectorized Housing (H1)

Features

- Low Noise Figure: 2.5 dB Typical
- Output Power: +18 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	10 - 300 MHz	10 - 300 MHz
Gain (dB)	20.0 ±5	19.0 Min.
Power @ 1 dB Comp. (dBm)	+18	+17 Min.
Reverse Isolation (dB)	-23	-22 Max.
VSWR In	1.75:1	2.5:1 Max.
Out	1.5:1	2.0:1 Max.
Noise Figure (dB)	2.5	3.5 Max.
Power Vdc	+15	+15
mA	47	53 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 +48 dBm (Typ.)
 Second Order Two Tone Intercept Point +43 dBm (Typ.)
 Third Order Two Tone Intercept Point +32 dBm (Typ.)

Absolute Maximum (No Damage) Ratings

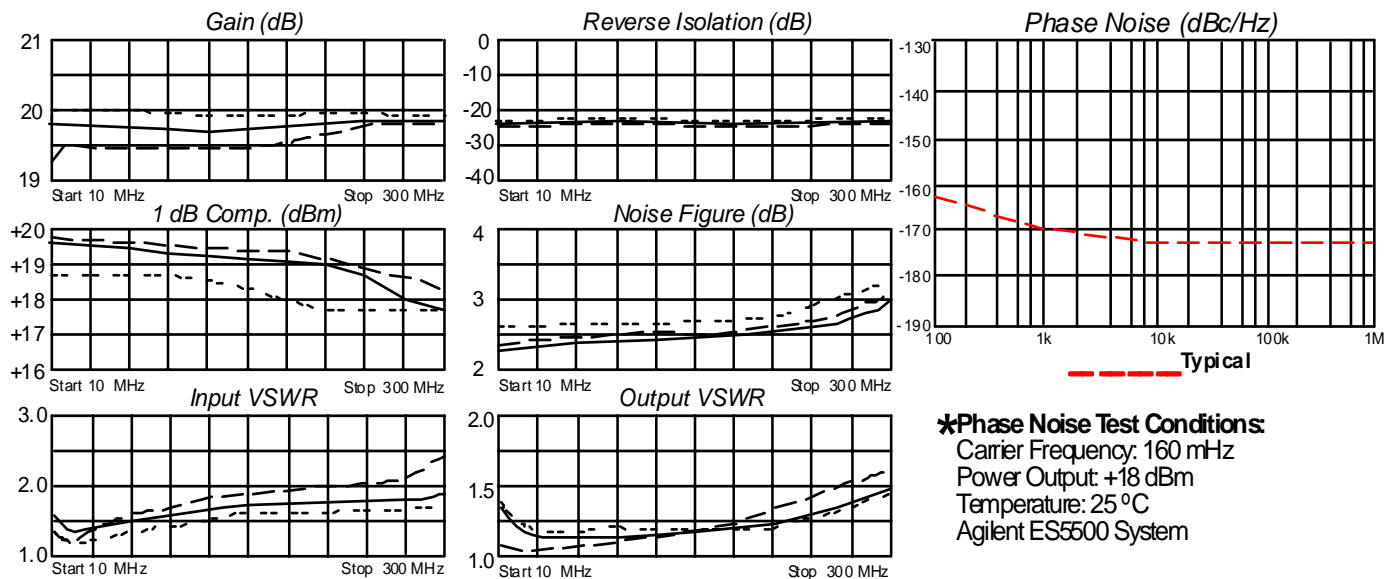
Ambient Operating Temperature -55°C to +100 °C
 Storage Temperature -62°C to +125 °C
 Case Temperature +125 °C
 DC Voltage +18 Volts
 Continuous RF Input Power +13 dBm
 Short Term RF Input Power 50 mW (1 Minute Max.)
 Maximum Peak Power 0.5 Watt (3 µsec Max.)

Guaranteed @ 25 °C (160 MHz) Phase Noise Performance (dBc/Hz)*

Frequency	Typical	Guarantee (min.)
100 Hz	- 162	- 158
1 kHz	- 170	- 168
10 kHz	- 172	- 170
100 kHz	- 173	- 170
1 MHz	- 173	- 170

*Note: Phase Noise Performance typically tested at midband.
 Bandedge performance may vary.

Typical Performance Data



*Phase Noise Test Conditions:

Carrier Frequency: 160 mHz
 Power Output: +18 dBm
 Temperature: 25 °C
 Agilent ES5500 System

Legend ——— +25 °C - - - - +85 °C ······ -55 °C

Linear S-Parameters

FREQ. MHz	S11		S21		S12		S22	
	Mag	Deg	Mag	Deg	Mag	Deg	Mag	Deg
10	.23	-44	9.95	-173	.07	-172	.16	-76
50	.19	-57	10.0	159	.07	158	.07	-87
100	.24	-94	9.90	136	.07	133	.07	-79
200	.29	-162	9.76	90	.07	86	.09	-77
300	.30	121	9.91	38	.07	37	.21	-108



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