RF AMPLIFIER
MODEL *TM6441PM*

Available as: TM6441PM, 4 Pin TO-8 (T4)
TN6441PM, 4 Pin Surface Mount (SM3)
FP6441PM, 4 Pin Flatpack (FP4)
BX6441PM, Connectorized Housing (H1)

Features

- Superior Phase Noise Performance
- Output Power: +16 dBm Typical
- Operating Temp. -55 ºC to +85 ºC
- Environmental Screening Available

Specifications

CHARACTERISTIC	TYPICAL Ta= 25 ºC	MIN/MAX Ta = -55 ºC to +85 ºC
Frequency	20 - 400 MHz	20 - 400 Mhz
Gain (dB)	14.5	13 Min.
Power @ 1 dB Comp. (dBm)	16	15 Min.
Reverse Isolation (dB)	-19	-18 Max.
VSWR In Out	<1.5:1 <1.75:1	2.0:1 Max. 2.0:1 Max.
Noise Figure (dB)	3.5	5.0 Max.
Power Vdc mA	+15 32	+15 35 Max.

Typical Intermodulation Performance at 25 º C

Second Order Harmonic Intercept Point ..... +53 dBm (Typ.)
Second Order Two Tone Intercept Point ..... +48 dBm (Typ.)
Third Order Two Tone Intercept Point ..... +31 dBm (Typ.)

Maximum Ratings

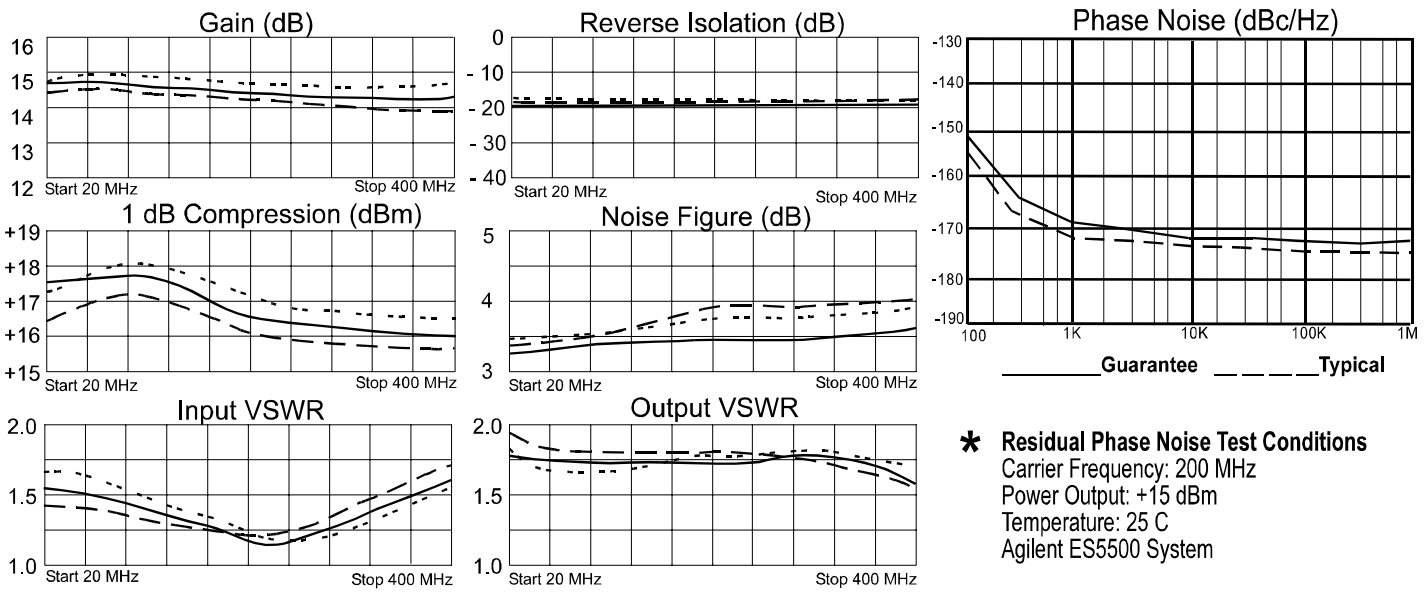
Ambient Operating Temperature .....-55ºC to +100 ºC
Storage Temperature .....-62ºC to +125 ºC
Case Temperature .....+125 ºC
DC Voltage .....+18 Volts
Continuous RF Input Power ..... +13 dBm
Short Term RF Input Power ..... 50 Milliwatts (1 Minute Max.)
Maximum Peak Power ..... 0.5 Watt (3 µsec Max.)

Note: Care should always be taken to effectively ground the case of each unit.

Guaranteed Phase Noise Performance (dBc/Hz)

Frequency	Typical	Guarantee
100 Hz	-153	-150
1 kHz	-168	-165
10 kHz	-173	-169
100 kHz	-174	-170
1 MHz	-174	-170

Typical Performance Data



✱ **Residual Phase Noise Test Conditions**
Carrier Frequency: 200 MHz
Power Output: +15 dBm
Temperature: 25 C
Agilent ES5500 System

Legend ——— +25 ºC – – – +85 ºC - - - - - - -55 ºC

Linear S-Parameters

FREQ. MHz	S11 Mag	S11 Deg	S21 Mag	S21 Deg	S12 Mag	S12 Deg	S22 Mag	S22 Deg
10	.22	-154	5.38	-176	.10	7	.30	170
20	.22	-169	5.46	177	.10	2	.28	173
50	.21	179	5.47	164	.10	- 6	.27	178
100	.18	168	5.43	146	.10	- 15	.27	-180
200	.09	176	5.30	110	.10	- 31	.29	179
300	.13	-126	5.17	74	.11	- 49	.29	166
400	.24	-136	5.18	34	.11	- 72	.24	124
500	.20	-160	4.98	- 18	.10	-108	.35	7

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