

RF AMPLIFIER

MODEL *TM6547PM*

Available as: TM6547PM, 4 Pin TO-8 (T4)
 TN6547PM, 4 Pin Surface Mount (SM3)
 FP6547PM, 4 Pin Flatpack (FP4)
 BX6547PM, Connectorized Housing (H1)

Features

- Superior Phase Noise Performance
- Higher Output Power: +19 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 - 500 MHz	10 - 500 MHz
Gain (dB)	12.5	11 Min.
Power @ 1 dB Comp. (dBm)	19	17.5 Min.
Reverse Isolation (dB)	-17	-15 Max.
VSWR In	1.75:1	2.0:1 Max.
Out	1.5:1	2.0:1 Max.
Noise Figure (dB)	<4	4.5 Max.
Power Vdc	+15	+15
mA	55	58 Max.

Typical Intermodulation Performance at 25 °C

Second Order Harmonic Intercept Point +54 dBm (Typ.)
 Second Order Two Tone Intercept Point +48 dBm (Typ.)
 Third Order Two Tone Intercept Point +35 dBm (Typ.)

Maximum Ratings

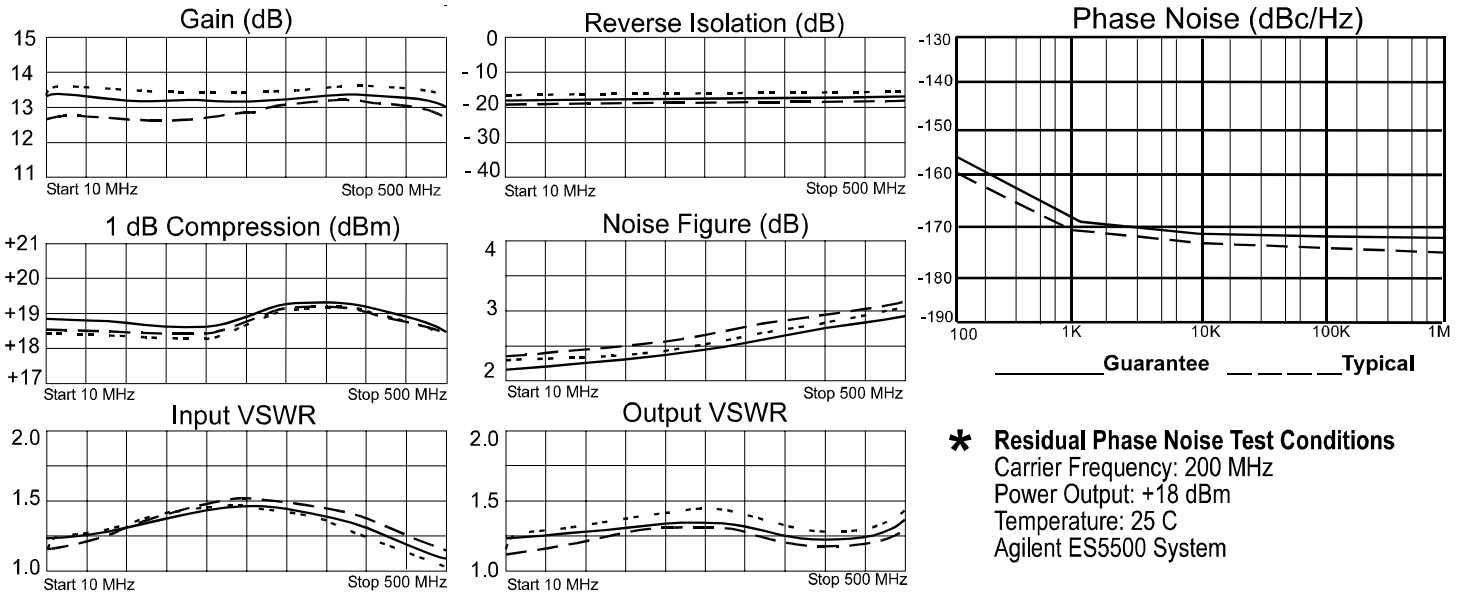
Ambient Operating Temperature -55°C to +100 °C
 Storage Temperature -62°C to +125 °C
 Case Temperature +125 °C
 DC Voltage +18 Volts
 Continuous RF Input Power +13 dBm
 Short Term RF Input Power 50 Milliwatts (1 Minute Max.)
 Maximum Peak Power 0.2 Watt (3 µsec Max.)

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	-160	-157
1 kHz	-168	-165
10 kHz	-173	-170
100 kHz	-175	-172
1 MHz	-175	-172

Typical Performance Data



* **Residual Phase Noise Test Conditions**
 Carrier Frequency: 200 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	.10	-13	4.62	-173	.13	-174	.10	-8
50	.10	7	4.62	169	.13	169	.11	3
100	.12	14	4.57	155	.13	153	.12	5
200	.17	6	4.54	129	.13	127	.15	-8
300	.18	-16	4.53	103	.13	102	.14	-39
400	.13	-44	4.52	75	.14	76	.12	-94
500	.04	-89	4.43	43	.14	50	.17	-170
600	.09	92	4.05	10	.15	22	.31	140



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