

RF AMPLIFIER

MODEL *TM6487PM*

Available as: TM6487PM, 4 Pin TO-8 (T4)
 TN6487PM, 4 Pin Surface Mount (SM3)
 FP6487PM, 4 Pin Flatpack (FP4)
 BX6487PM, Connectorized Housing (H1)

Features

- Superior Phase Noise Performance
- Higher Output Power: +17.5 dBm Typical
- High Third Order Intercept: +32 dBm Typical
- Operating Temp. -55 °C to +85 °C

Specifications

CHARACTERISTIC	TYPICAL Ta= 25 °C	MIN/MAX Ta = -55 °C to +85 °C
Frequency	10 - 400 MHz	10 - 400 MHz
Gain (dB)	15.5	14.0 Min.
Power @ 1 dB Comp. (dBm)	+17.5	+15.0 Min.
Reverse Isolation (dB)	-20	-18 Max.
VSWR In	1.5:1	2.0:1* Max.
VSWR Out	1.5:1	2.0:1 Max.
Noise Figure (dB)	3.2	5.0 Max.
Power Vdc	+15	+15
mA	33	37 Max.

Note: Care should always be taken to effectively ground the case of each unit.
 *2.5:1 from 300 to 400 MHz

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 +32 dBm (Typ.)

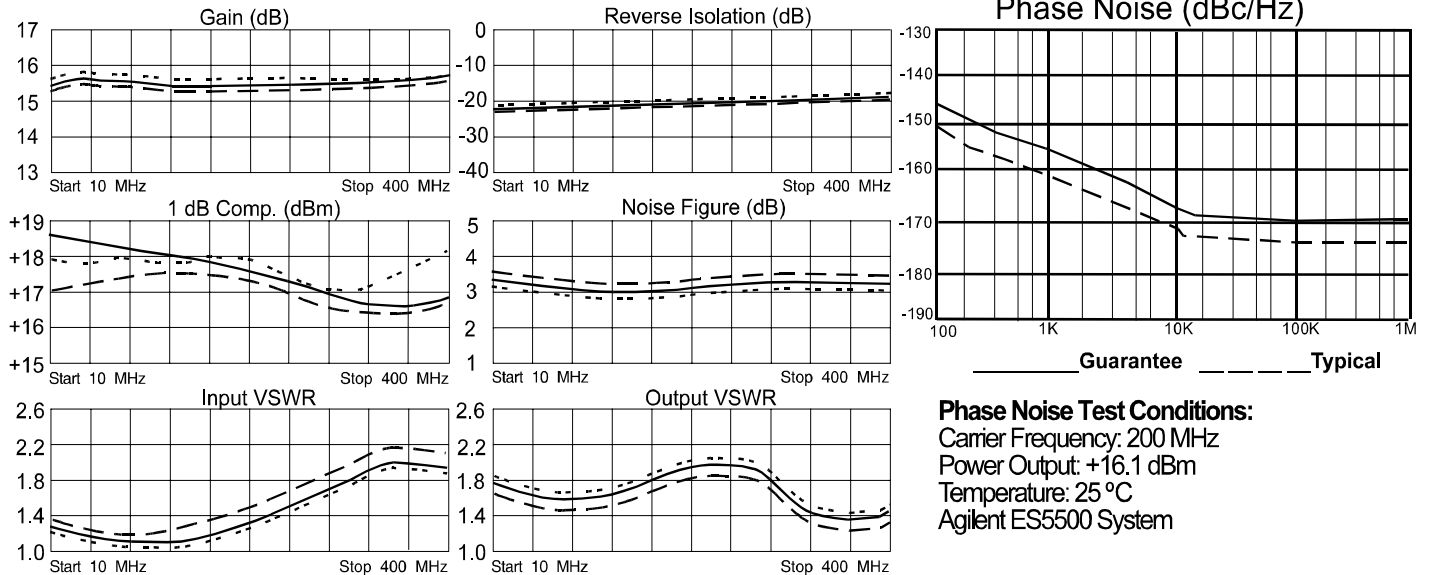
Maximum Ratings

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 0.5 Watt (3 μsec Max.)

Guaranteed Phase Noise Performance (dBc/Hz)

Frequency	Typical	Guarantee (Min.)
100 Hz	-152	-148
1 kHz	-163	-159
10 kHz	-173	-169
100 kHz	-174	-170
1 MHz	-174	-170

Typical Performance Data



Phase Noise Test Conditions:

Carrier Frequency: 200 MHz
 Power Output: +16.1 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	.15	-136	6.09	-175	.09	8	.28	166
50	.13	174	6.25	161	.09	-7	.23	-180
100	.09	155	6.17	139	.09	-18	.24	-172
200	.02	-79	5.95	97	.10	-39	.26	-166
300	.15	-111	5.93	54	.10	-61	.24	-170
400	.20	178	5.91	4	.11	-93	.05	-156
500	.38	39	4.77	-64	.10	-146	.55	-69



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