

RF AMPLIFIER

MODEL TM7207PM

Available as: TM7207PM, 4 Pin TO-8 (T4)
 TN7207PM, 4 Pin Surface Mount (SM3)
 FP7207PM, 4 Pin Flatpack (FP4)
 BX7207PM, Connectorized Housing (H1)

Features

- Superior Phase Noise Performance
- Output Power: +16 dBm Typical
- Low Noise Figure: 2 dB Typical
- Operating Temp. -55 °C to +85 °C

Specifications

CHARACTERISTIC	TYPICAL Ta= 25 °C	MIN/MAX Ta = -55 °C to +85 °C
Frequency	10 - 300 MHz	10 - 200 MHz
Gain (dB)	18	17 Min.
Power @ 1 dB Comp. (dBm)	+16	+15 Min.
Reverse Isolation (dB)	-22	-21 Max.
VSWR In	<1.7:1	2.0:1 Max.
VSWR Out	<1.7:1	2.0:1 Max.
Noise Figure (dB)	2.0	3.0 Max.
Power Vdc	+15	+15
mA	33	40 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 +42 dBm (Typ.)
 Third Order Two Tone Intercept Point +31 dBm (Typ.)

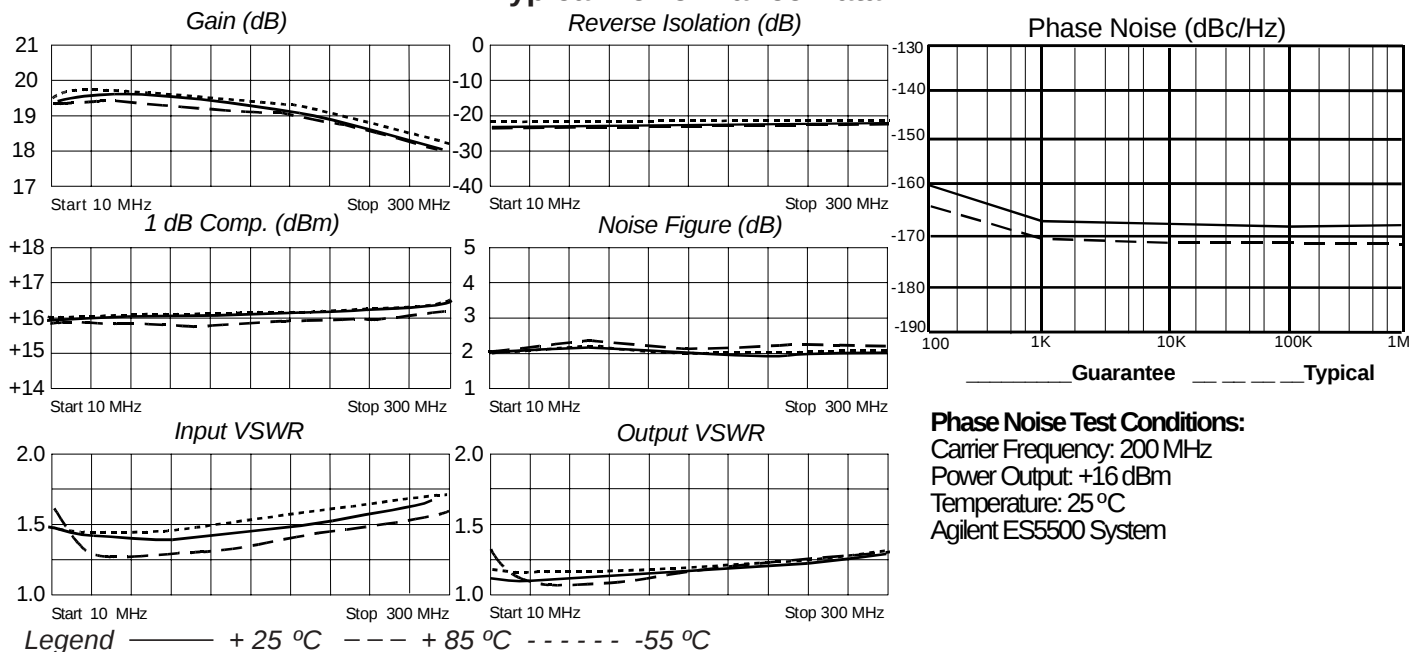
Maximum Ratings

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 100 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	-164	-160
1 kHz	-170	-166
10 kHz	-172	-168
100 kHz	-172	-168
1 MHz	-172	-168

Typical Performance Data



Phase Noise Test Conditions:

Carrier Frequency: 200 MHz
 Power Output: +16 dBm
 Temperature: 25 °C
 Agilent ES5500 System

Linear S-Parameters

Freq MHz	---S11---	---S21---	---S12---	---S22---
	Mag Deg	Mag Deg	Mag Deg	Mag Deg
10	.21 -39	9.42 -172	.069 -171	.15 -56
50	.15 -29	9.53 167	.069 165	.05 -8
100	.16 -41	9.35 150	.073 148	.06 23
150	.17 -59	9.16 134	.077 132	.08 37
200	.19 -77	8.88 118	.081 119	.10 41
250	.21 -98	8.51 102	.085 104	.12 43
300	.22 -120	8.01 87	.090 92	.14 40



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