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 ºC to +85 ºC

Specifications

CHARACTERISTIC	TYPICAL Ta= 25 ºC	MIN/MAX Ta = -55 ºC to +85 ºC
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
Power mA	33	40 Max.

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

Typical Intermodulation Performance at 25 ºC

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.)

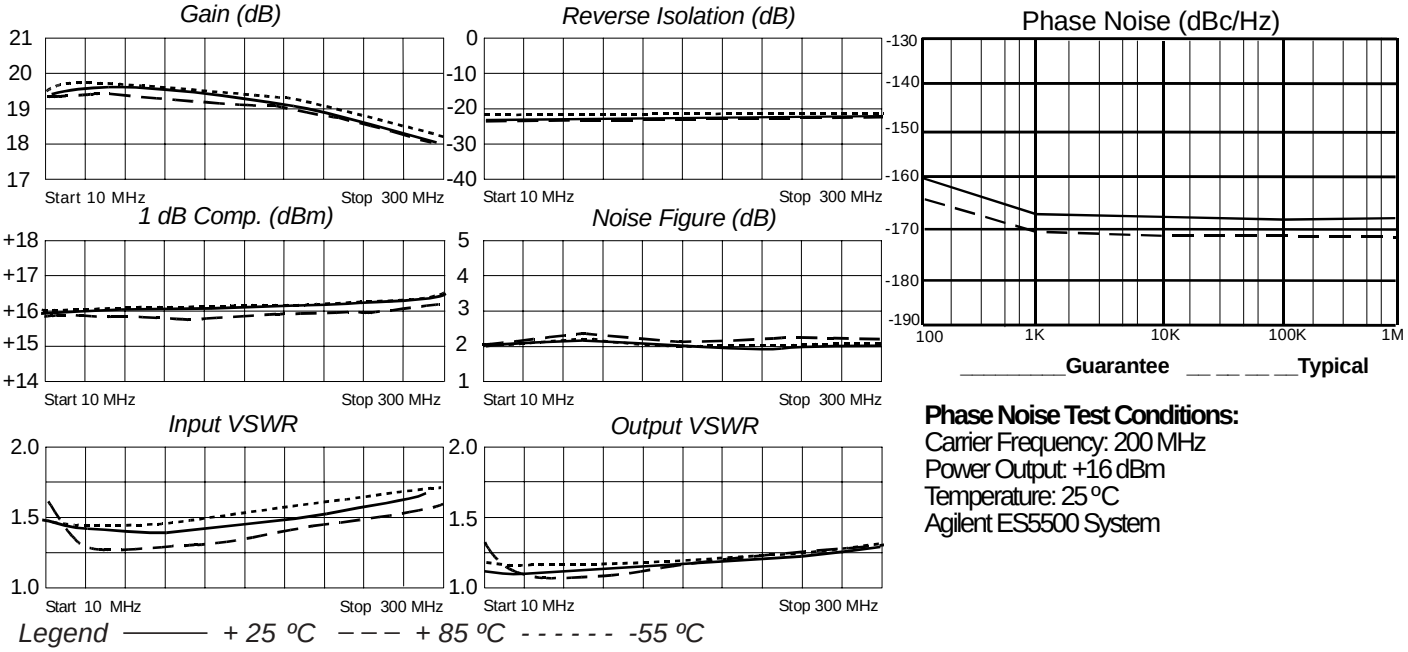
Maximum Ratings

Ambient Operating Temperature .....-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 .... 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 ºC
Agilent ES5500 System

Linear S-Parameters

Freq	----S11----		----S21----		----S12----		----S22----	
MHz	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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