

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.)

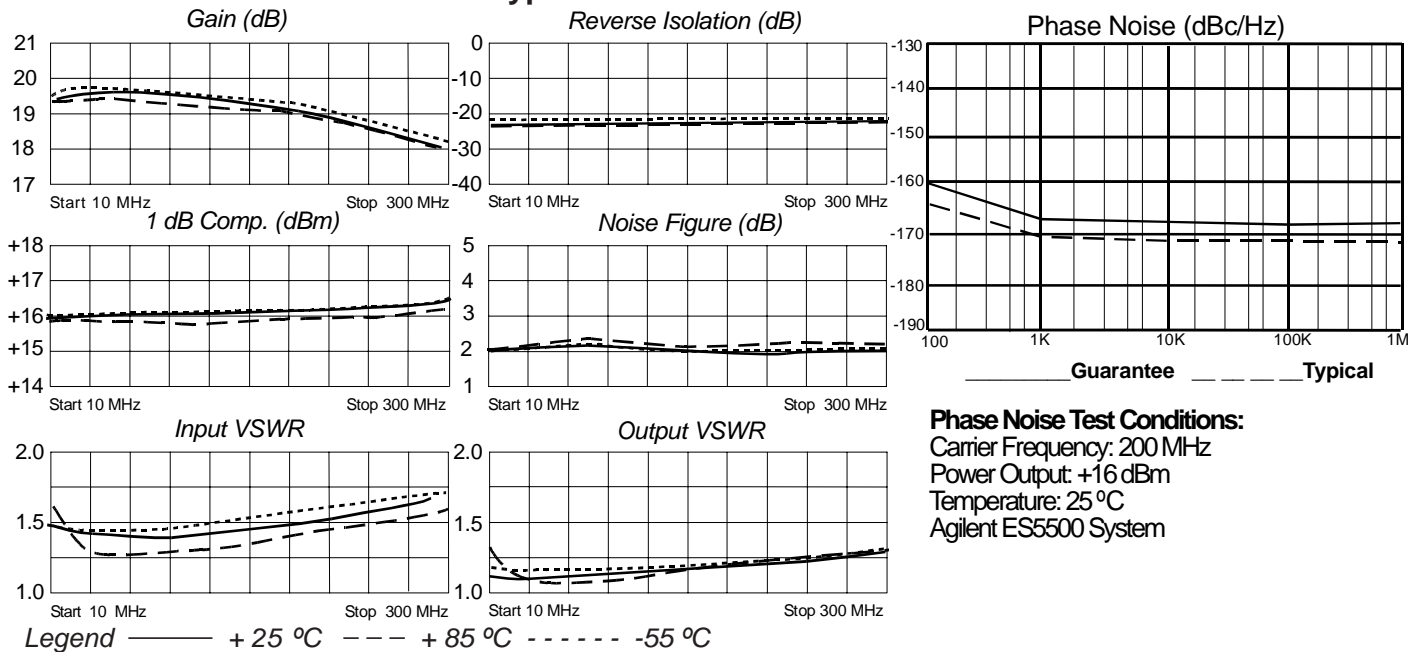
Maximum Ratings

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

