

RF AMPLIFIER

MODEL *TM9723PM*

Available as: TM9723PM, 4 Pin TO-8 (T4)
 TN9723PM, 4 Pin Surface Mount (SM3)
 FP9723PM, 4 Pin Flatpack (FP4)
 BX9723PM, Connectorized Housing (H1)

Features

- GaAs FET Amplifier; Medium Gain: 13 dB Typical
- High Output Power: +27 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 (MHz)	10 - 1000 MHz	10 - 1000 MHz
Gain (dB)	13	12 Min.
Power @ 1 dB Comp. (dBm)	>+27	+26 Min.
Reverse Isolation (dB)	-18	-17 Max.
VSWR In	<1.75:1	2.0:1 Max.
VSWR Out	<1.50:1	2.0:1 Max.
Noise figure (dB)	<4	8* Max.
Power Vdc	+15	+15
mA	185	195 Max.

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

* Noise Figure is >8 dB below 30 MHz.

Typical Intermodulation Performance at 25 ° C

Second Order Harmonic Intercept Point +52 dBm (Typ.)
 Second Order Two Tone Intercept Point +48 dBm (Typ.)
 Third Order Two Tone Intercept Point +40 dBm (Typ.)

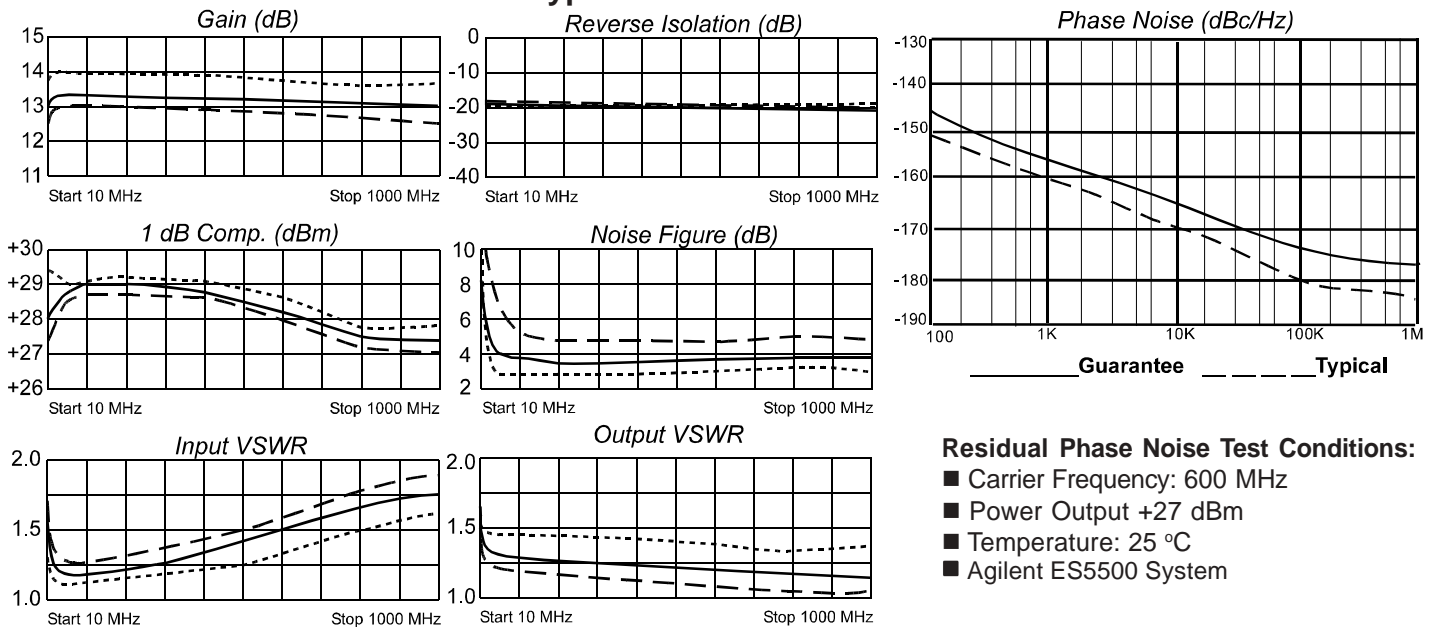
Maximum Ratings

Ambient Operating Temperature -55°C to +100 °C
 Storage Temperature -62°C to +125 °C
 Case Temperature +125 °C
 DC Voltage +17 Volts
 Continuous RF Input Power +18 dBm
 Short Term RF Input Power 150 mW (1 Minute Max.)
 Maximum Peak Power 0.3 Watt (3 µsec Max.)

Guaranteed Phase Noise Performance (dBc/Hz) *

Frequency	Typical	Guarantee (min.)
100 Hz	-150	-146
1 kHz	-159	-155
10 kHz	-169	-165
100 kHz	-178	-173
1 MHz	-183	-178

Typical Performance Data



Legend ——— + 25 °C - - - - + 85 °C ······ -55 °C

Residual Phase Noise Test Conditions:

- Carrier Frequency: 600 MHz
- Power Output +27 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	- 57	4.51	-161	.106	11	.20	139
50	.09	- 41	4.69	179	.108	0	.13	166
100	.08	- 42	4.69	172	.109	- 2	.12	164
200	.10	- 56	4.70	161	.110	- 8	.11	159
400	.13	- 80	4.65	140	.108	- 17	.09	147
600	.19	-100	4.56	120	.104	- 27	.08	135
800	.23	-121	4.48	101	.100	- 35	.07	115
1000	.29	-139	4.47	83	.097	- 34	.04	79



Spectrum Microwave · 2144 Franklin Drive N.E. · Palm Bay, Florida 32905 · PH (888) 553-7531 · Fax (888) 553-7532

Rev. 10/31/07