

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

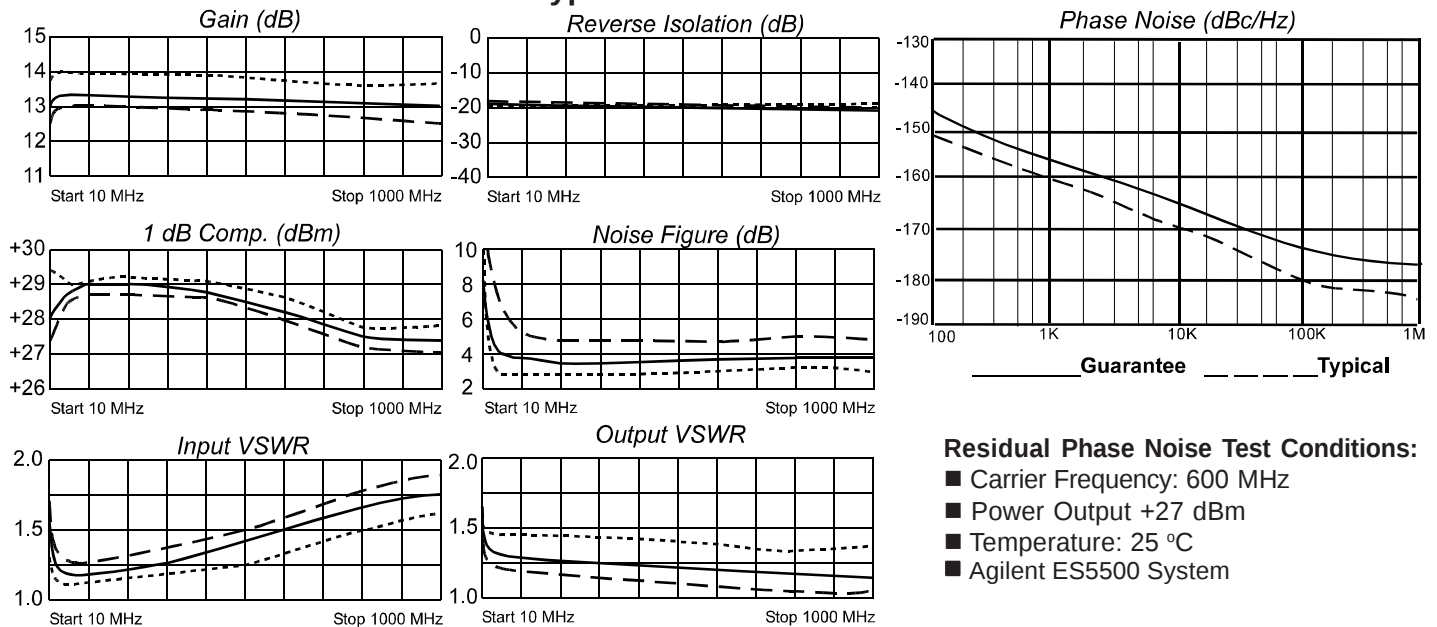
Short Term RF Input Power 150 mW (1 Minute Max.)

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 Mag.	S11 Deg.	S21 Mag.	S21 Deg.	S12 Mag.	S12 Deg.	S22 Mag.	S22 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



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