

RF AMPLIFIER

MODEL *TM6545PM*

Available as: TM6545PM, 4 Pin TO-8 (T4)
 TN6545PM, 4 Pin Surface Mount (SM3)
 FP6545PM, 4 Pin Flatpack (FP4)
 BX6545PM, Connectorized Housing (H1)

Features

- Superior Phase Noise Performance
- Higher Output Power: +20.5 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	10 - 500 MHz	10 - 500 MHz
Gain (dB)	11.5	10 Min.
Power @ 1 dB Comp. (dBm)	20.5	18 Min.
Reverse Isolation (dB)	-15	-14
VSWR In	<1.25:1	2.0:1
VSWR Out	<1.25:1	2.0:1
Noise Figure (dB)	<4.0	5.5 Max.
Power Vdc	+15	+15
mA	60	65 Max.

Typical Intermodulation Performance at 25 °C

Second Order Harmonic Intercept Point +54 dBm (Typ.)
 Second Order Two Tone Intercept Point +48 dBm (Typ.)
 Third Order Two Tone Intercept Point +36 dBm (Typ.)

Maximum Ratings

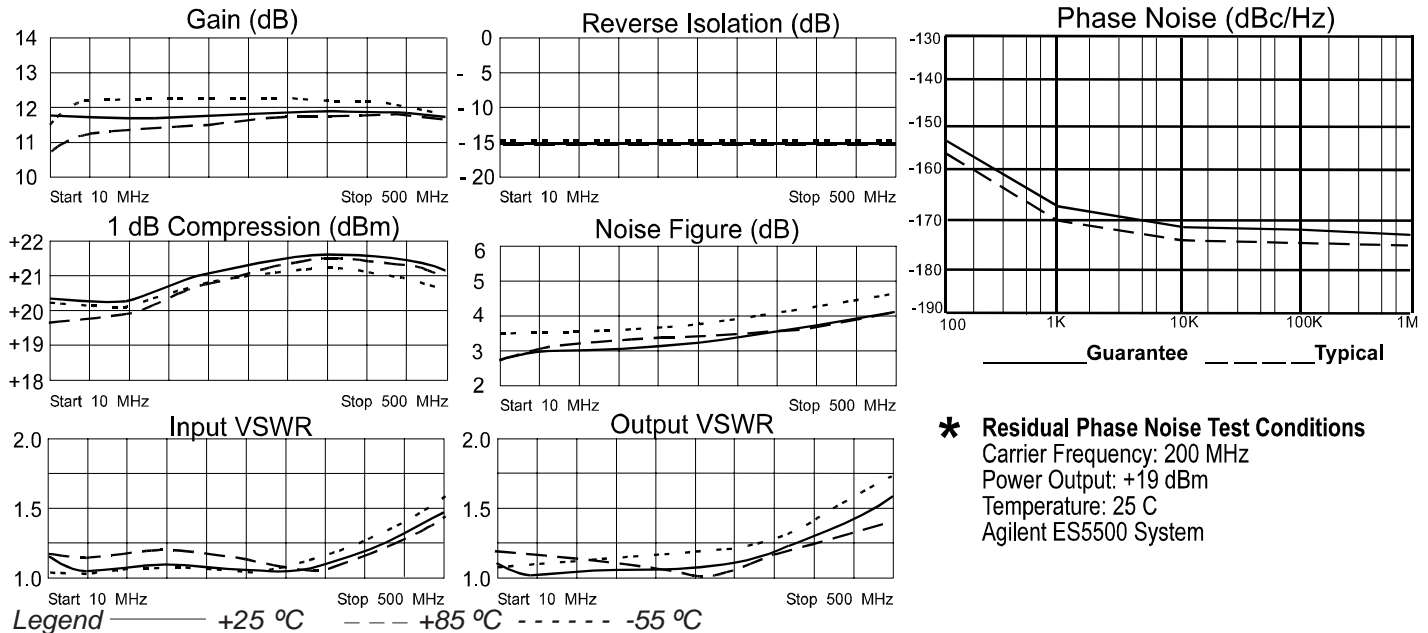
Ambient Operating Temperature -55°C to +100 °C
 Storage Temperature -62°C to +125 °C
 Case Temperature +125 °C
 DC Voltage +18 Volts
 Continuous RF Input Power +13 dBm
 Short Term RF Input Power 50 Milliwatts (1 Minute Max.)
 Maximum Peak Power 0.5 Watt (3 µsec Max.)

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

Guaranteed Phase Noise Performance (dBc/Hz)

Frequency	Typical	Guarantee
100 Hz	-156	-153
1 kHz	-170	-167
10 kHz	-174	-170
100 kHz	-175	-171
1 MHz	-175	-171

Typical Performance Data



* Residual Phase Noise Test Conditions

Carrier Frequency: 200 MHz
 Power Output: +19 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	.04	-76	3.93	-174	.16	-174	.03	-55
50	.04	75	3.89	168	.16	167	.04	64
100	.09	58	3.86	155	.16	153	.08	62
200	.16	21	3.88	130	.16	126	.13	45
300	.18	-23	3.94	104	.17	101	.12	32
400	.17	-87	4.06	76	.17	75	.08	67
500	.22	-169	4.04	44	.18	49	.19	106



Spectrum Microwave · 2144 Franklin Drive N.E. · Palm Bay, Florida 32905 · PH (888) 553-7531 · Fax (888) 553-7532 3/31/04

www.SpectrumMicrowave.com Spectrum Microwave · 2707 Black Lake Place · Philadelphia, Pennsylvania 19154 · PH (215) 464-4000 · Fax (215) 464-4001