

RF AMPLIFIER

MODEL *TM6558PM*

Available as: TM6558PM, 4 Pin TO-8 (T4)
 TN6558PM, 4 Pin Surface Mount (SM3)
 FP6558PM, 4 Pin Flatpack (FP4)
 BX6558PM, Connectorized Housing (H1)

Features

- Superior Phase Noise Performance
- Higher Output Power: 19 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	5-500 MHz	5-500 MHz
Gain (dB)	12	10.5 Min.
Power @ 1 dB Comp. (dBm)	19	17.5 Min.
Reverse Isolation (dB)	-16	-15 Max.
VSWR In	<1.5:1	2.0:1
Out	<1.5:1	2.0:1
Noise figure (dB)	4.8	6.5 Max.
Power Vdc	+15	+15
mA	65	72 Max.

Typical Intermodulation Performance at 25 ° C

Second Order Harmonic Intercept Point +53 dBm (Typ.)
 Second Order Two Tone Intercept Point +48 dBm (Typ.)
 Third Order Two Tone Intercept Point +36 dBm (Typ.)

Maximum Ratings

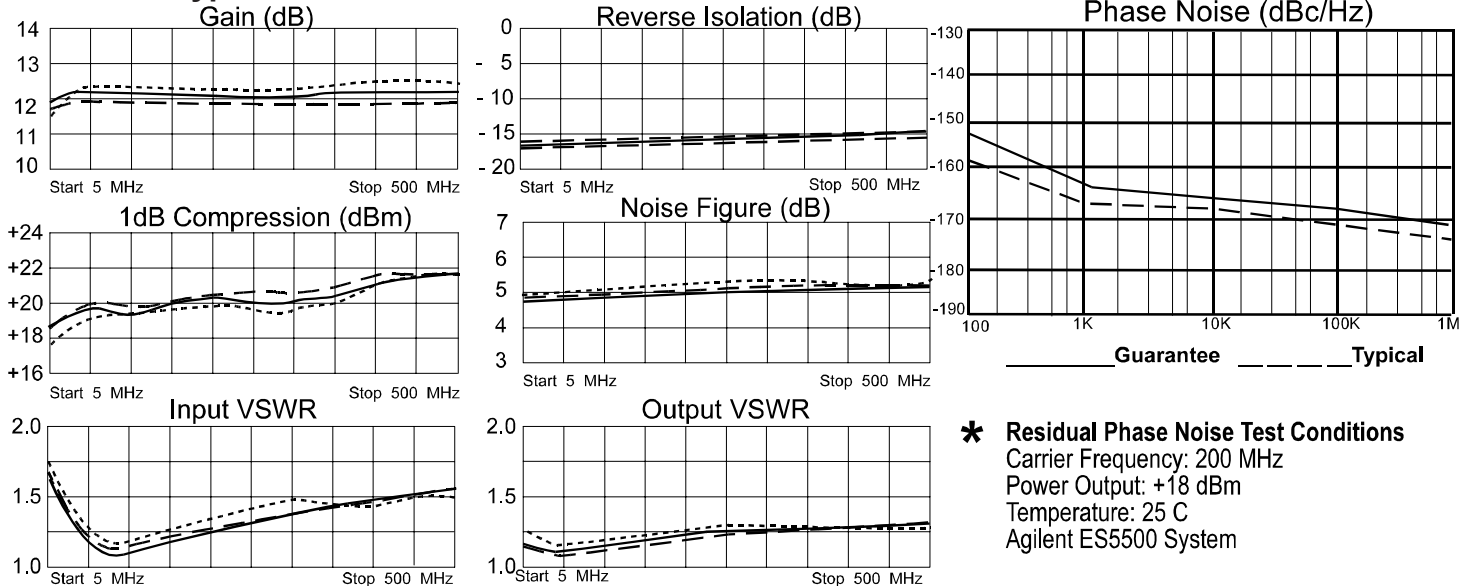
Ambient Operating Temperature -55°C to + 100 °C
 Storage Temperature -62°C to + 125 °C
 Case Temperature + 125 °C
 DC Voltage + 18 Volts
 Continuous RF Input Power + 18 dBm
 Short Term RF Input Power 50 Milliwatts (1 Minute Max.)
 Maximum Peak Power 0.5 Watt (3 σsec Max.)

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	-158	-155
1 kHz	-164	-161
10 kHz	-168	-165
100 kHz	-173	-170
1 MHz	-174	-171

Typical Performance Data



* Residual Phase Noise Test Conditions
 Carrier Frequency: 200 MHz
 Power Output: +18 dBm
 Temperature: 25 C
 Agilent ES5500 System

Linear S-Parameters

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

FREQ. MHz	S11		S21		S12		S22	
	Mag	Deg	Mag	Deg	Mag	Deg	Mag	Deg
5	.21	-65	3.93	-160	.14	6	.07	40
50	.04	- 2	4.07	168	.14	- 3	.06	10
100	.07	13	4.05	153	.14	- 7	.07	8
200	.12	- 1	3.99	125	.14	-15	.09	- 10
300	.17	-25	3.97	97	.15	-25	.11	- 40
400	.20	-48	4.00	68	.15	-35	.12	- 72
500	.20	-71	4.05	39	.16	-45	.14	-114
600	.16	-87	4.12	7	.17	-58	.15	-166
700	.09	-57	4.01	- 30	.19	-73	.17	130
800	.25	-28	3.52	- 70	.20	-94	.22	63



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