

RF AMPLIFIER

MODEL TM7279PM

Available as: TM7279PM, 4 Pin TO-8 (T4)
 TN7279PM, 4 Pin Surface Mount (SM3)
 FP7279PM, 4 Pin Flatpack (FP4)
 BX7279PM, Connectorized Housing (H1)

Features

- Superior Phase Noise Performance
- High Output Power: +23 dBm Typical
- High Third Order Intercept: +36 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)	5 -300 MHz	5 -300 MHz
Gain (dB)	14.0	12.5 Min.
Power @ 1 dB Comp. (dBm)	+23.0	+21.0 Min.
Reverse Isolation	-15.5	-14.5 Max.
VSWR In	<1.5:1	2.0:1 Max.
VSWR Out	<1.5:1	2.0:1 Max.
Noise Figure (dB)	<4.5	6.0 Max.
Power Vdc	+15	+15
mA	88	95 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 +52 dBm (Typ.)

Second Order Two Tone Intercept Point +46 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

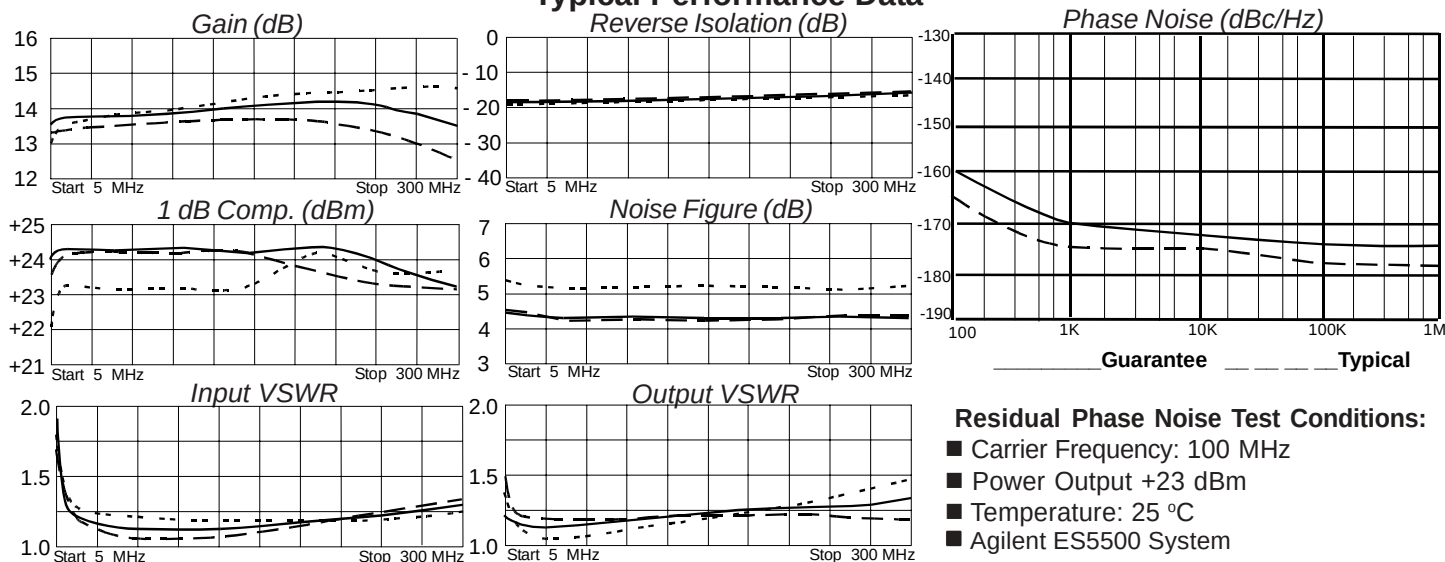
Short Term RF Input Power 50 mW (1 Minute Max.)

Maximum Peak Power 0.5 Watt (3 µsec Max.)

Guaranteed Phase Noise Performance (dBc/Hz) *

Frequency	Typical	Guarantee (min.)
100 Hz	-165	-160
1 kHz	-175	-170
10 kHz	-175	-172
100 kHz	-178	-174
1 MHz	-178	-174

Typical Performance Data



Residual Phase Noise Test Conditions:

- Carrier Frequency: 100 MHz
- Power Output +23 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
5	.22	-91	4.76	-160	.13	8	.09	137
20	.08	-140	4.92	179	.13	3	.07	171
50	.05	165	4.93	166	.13	2	.07	-173
100	.06	107	4.99	148	.13	2	.08	-161
150	.06	58	5.06	130	.14	1	.11	-166
200	.08	15	5.12	111	.15	0	.12	174
250	.11	-28	5.08	89	.16	-3	.14	142
300	.13	-65	4.76	64	.17	-9	.16	91



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