

RF AMPLIFIER

MODEL *TM7277PM*

Available as: TM7277PM, 4 Pin TO-8 (T4)
 TN7277PM, 4 Pin Surface Mount (SM3)
 FP7277PM, 4 Pin Flatpack (FP4)
 BX7277PM, Connectorized Housing (H1)

Features

- Superior Phase Noise Performance
- High Output Power: +24 dBm Typical
- High Third Order Intercept: +41 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 - 250 MHz	5 - 250 MHz
Gain (dB)	10.5	9.5
Power @ 1 dB Comp. (dBm)	+24.0	+20.0 Min.
Reverse Isolation (dB)	-12.5	-11.5 Max.
VSWR In	<1.50:1	2.0:1 Max.
VSWR Out	<1.75:1	2.0:1 Max.
Noise Figure (dB)	4.0	5.0 Max.
Power Vdc	+15	+15
mA	70	75 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 +54 dBm (Typ.)
 Second Order Two Tone Intercept Point +48 dBm (Typ.)
 Third Order Two Tone Intercept Point +41 dBm (Typ.)

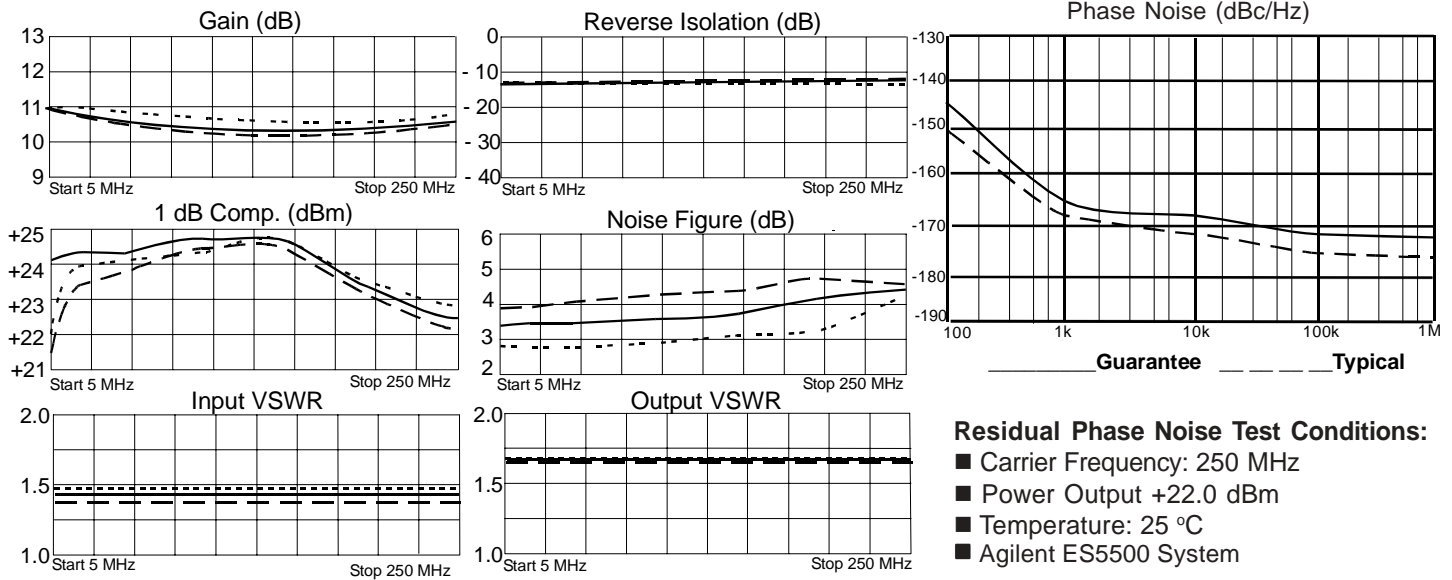
Maximum Ratings

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	-150	-145
1 kHz	-168	-164
10 kHz	-171	-168
100 kHz	-175	-171
1 MHz	-176	-172

Typical Performance Data



Residual Phase Noise Test Conditions:

- Carrier Frequency: 250 MHz
- Power Output +22.0 dBm
- Temperature: 25 °C
- Agilent ES5500 System

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

Linear S-Parameters

FREQ. MHz	---S11---		---S21---		---S12---		---S22---	
	Mag	Deg	Mag	Deg	Mag	Deg	Mag	Deg
5	.15	-105	3.56	-170	.21	-173	.08	-93
10	.09	-118	3.53	-180	.22	179	.07	-125
50	.09	-122	3.43	152	.22	151	.11	-146
100	.14	-126	3.34	123	.22	122	.17	-177
150	.17	-132	3.32	96	.23	96	.20	142
200	.18	-134	3.32	67	.24	70	.21	93
250	.17	-130	3.37	38	.24	47	.24	38



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