

RF AMPLIFIER

MODEL *TM9126PM*

Available as: TM9126PM, 4 Pin TO-8 (T4)
 TN9126PM, 4 Pin Surface Mount (SM3)
 FP9126PM, 4 Pin Flatpack (FP4)
 BX9126PM, Connectorized Housing (H1)

Features

- Superior Phase Noise Performance
- High Gain 20.5 dB Typical
- Output Power: +15 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 - 1500 MHz	10 - 1500 MHz
Gain (dB)	20.5	18.5 Min.
Power @ 1 dB Comp. (dBm)	+15.0	+13.0 Min.
Reverse Isolation (dB)	-30	-27 Max.
VSWR In	<1.5:1	2.0:1 Max.
VSWR Out	<1.5:1	2.0:1 Max.
Noise Figure (dB)	<5.0	6.0 Max.
Power Vdc	+15	+15
mA	64	70 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 +51 dBm (Typ.)
 Second Order Two Tone Intercept Point +45 dBm (Typ.)
 Third Order Two Tone Intercept Point +28 dBm (Typ.)

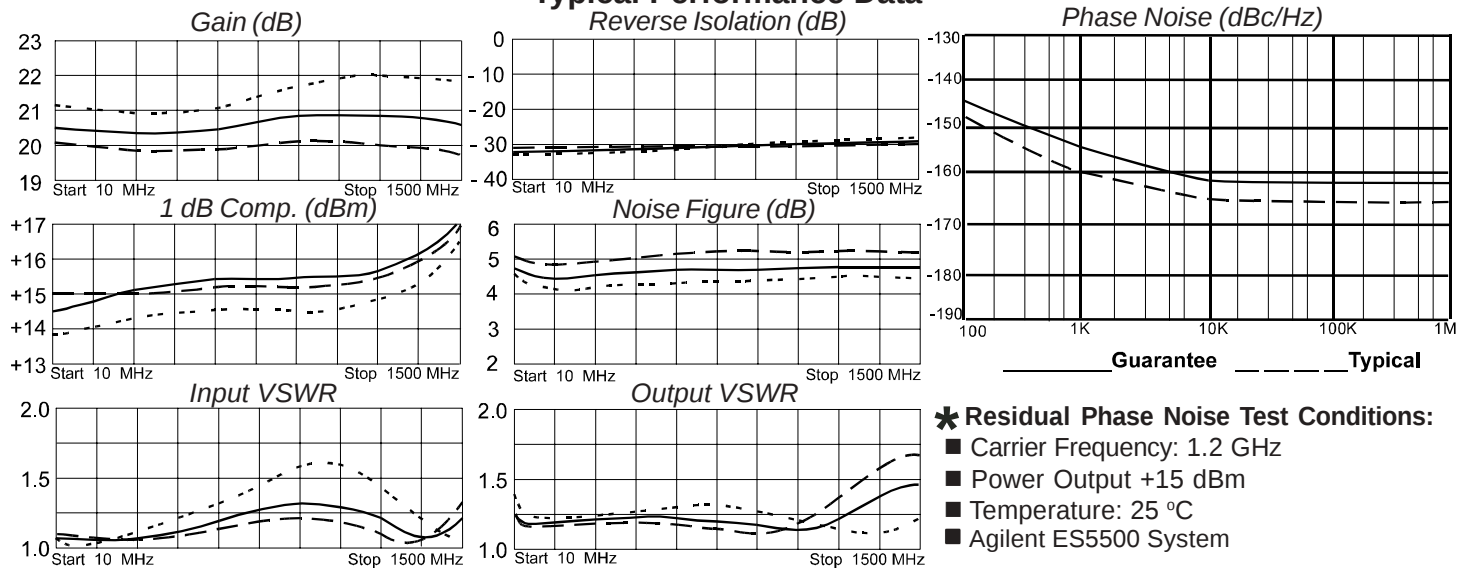
Maximum Ratings

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 +10 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	-148	-145
1 kHz	-160	-154
10 kHz	-165	-162
100 kHz	-165	-162
1 MHz	-165	-162

Typical Performance Data



* Residual Phase Noise Test Conditions:

- Carrier Frequency: 1.2 GHz
- Power Output +15 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	.02	50	10.68	5	.03	8	.12	145
50	.01	-33	10.64	-11	.03	-1	.08	166
100	.02	-74	10.62	-24	.03	-8	.08	172
300	.05	-154	10.50	-71	.03	-19	.09	166
500	.10	156	10.61	-119	.03	-35	.10	151
700	.17	110	10.95	-167	.03	-54	.10	133
900	.20	65	11.55	143	.03	-64	.07	117
1100	.19	20	11.83	89	.03	-83	.05	146
1300	.11	-30	11.55	32	.03	-100	.12	160
1500	.07	102	10.77	-27	.03	-125	.21	128



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