

RF AMPLIFIER

MODEL TM9137PM

Available as: TM9137PM, 4 Pin TO-8 (T4)
 TN9137PM, 4 Pin Surface Mount (SM3)
 FP9137PM, 4 Pin Flatpack (FP4)
 BX9137PM, Connectorized Housing (H1)

Features

- Superior Phase Noise Performance
- Output Power: +15.5 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 (MHz)	10 - 2000 MHz	10 - 2000 MHz
Gain (dB)	9.5	7.0 Min.
Power @ 1 dB Comp. (dBm)	+15.5	+13.0 Min.
Reverse Isolation (dB)	- 9.5	- 8.5 Max.
VSWR In	<1.75:1	2.2:1 Max.
VSWR Out	<1.50:1	2.2:1 Max.
Noise figure (dB)	6.5	10.0 Max.
Power Vdc	+15	+15
mA	45	50 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 +44 dBm (Typ.)
 Second Order Two Tone Intercept Point +38 dBm (Typ.)
 Third Order Two Tone Intercept Point +28 dBm (Typ.)

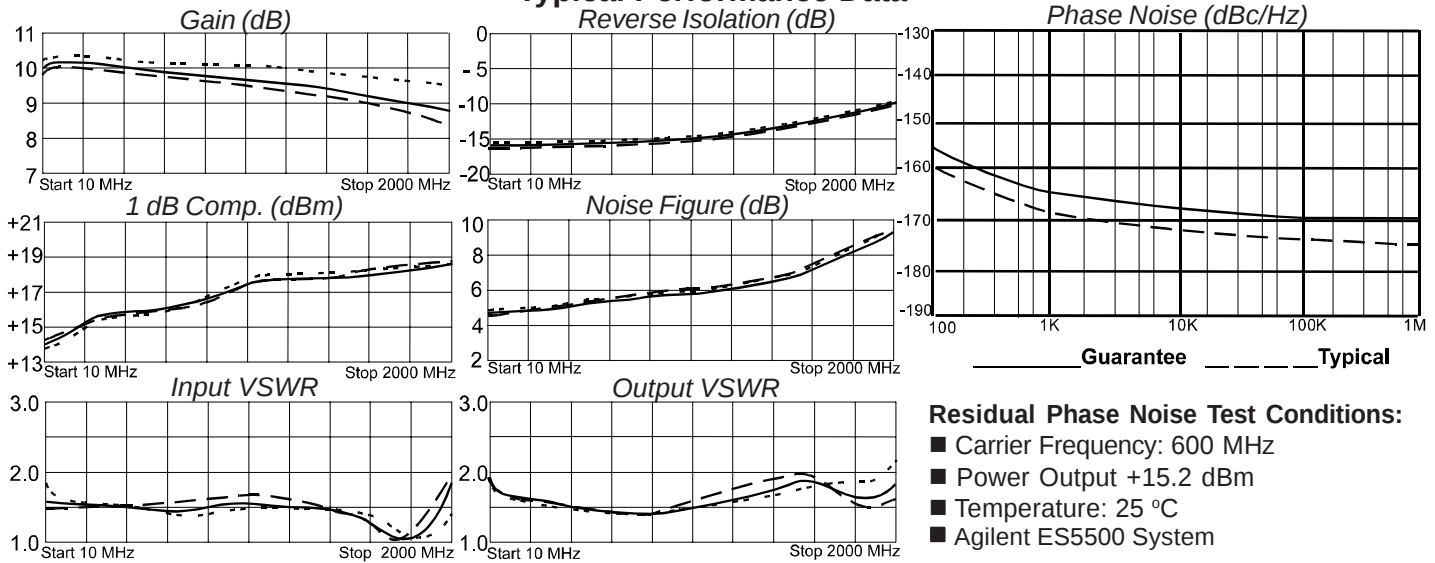
Maximum Ratings

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 + 13 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	-160	-156
1 kHz	-168	-165
10 kHz	-172	-168
100 kHz	-173	-170
1 MHz	-174	-170

Typical Performance Data



Residual Phase Noise Test Conditions:

- Carrier Frequency: 600 MHz
- Power Output +15.2 dBm
- Temperature: 25 °C
- Agilent ES5500 System

Linear S-Parameters

FREQ. MHz	Mag	S11 Deg	Mag	S21 Deg	Mag	S12 Deg	Mag	S22 Deg
10	.22	-153	3.14	-172	.16	10	.28	163
100	.21	-178	3.21	169	.16	- 1	.24	160
200	.21	-179	3.20	156	.16	- 4	.23	144
400	.20	-177	3.18	132	.17	- 9	.22	110
600	.19	-179	3.15	108	.17	- 15	.20	71
800	.19	-177	3.08	84	.18	- 22	.20	29
1000	.20	-176	3.05	61	.19	- 30	.22	- 14
1200	.21	-179	2.97	37	.21	- 38	.26	- 56
1400	.20	-171	2.93	12	.23	- 49	.28	- 97
1600	.15	-155	2.87	- 12	.25	- 62	.30	-140
1800	.05	- 94	2.88	- 39	.29	- 79	.29	164
2000	.21	- 38	2.96	- 70	.32	-106	.35	92



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