

RF AMPLIFIER

MODEL *TM9167PM*

Available as: TM9167PM, 4 Pin TO-8 (T4)
 TN9167PM, 4 Pin Surface Mount (SM3)
 BX9167PM, Connectorized Housing (H1)

Features

- Superior Phase Noise Performance
- Medium Gain: 12.5 dB Typical
- Output Power: +15.5 dBm Typical
- Operating Temp. -55 °C to +85 °C

Specifications

CHARACTERISTIC	TYPICAL Ta= 25 °C	MIN/MAX Ta = -55 °C to +85 °C
Frequency	10 - 800 MHz	10 - 800 MHz
Gain (dB)	12.5	11.5 Min.
Power @ 1 dB Comp. (dBm)	15.5	14.5 Min.
Reverse Isolation (dB)	-15	-14 Max.
VSWR In	<1.5:1	2.0:1 Max.
VSWR Out	<1.75:1	2.0:1 Max.
Noise Figure (dB)	<4.5	5.5 Max.
Power Vdc	+15	+15
mA	32	35 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 +30 dBm (Typ.)

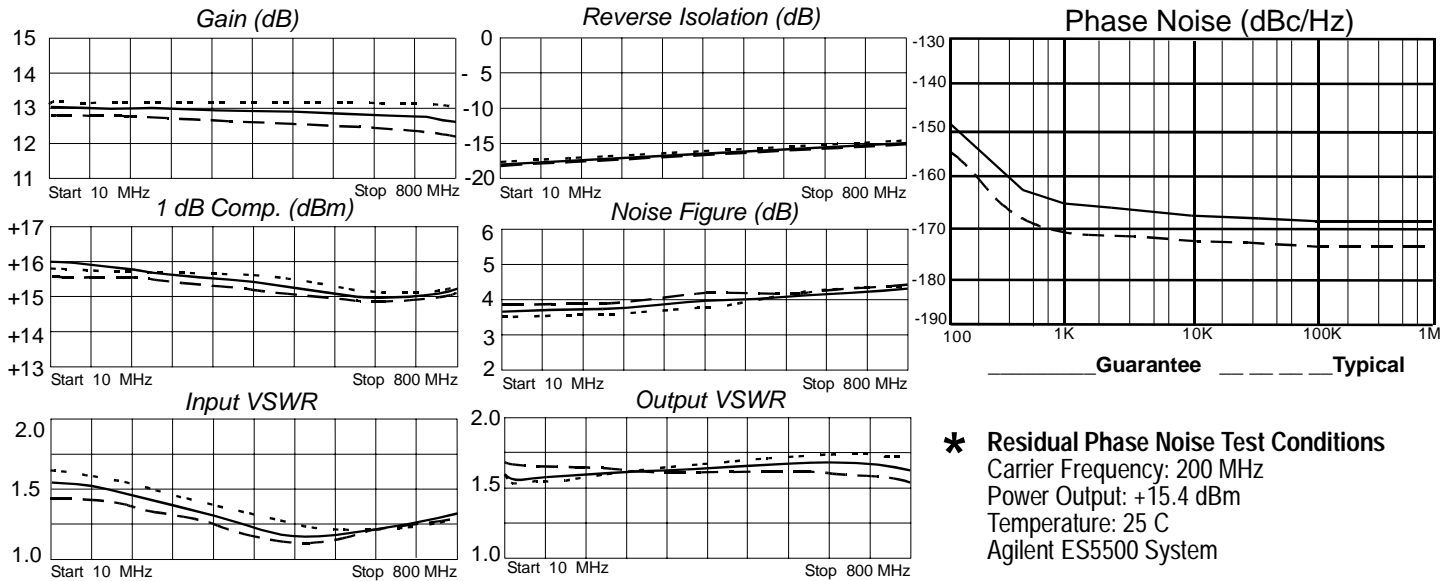
Maximum Ratings

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 Milliwatts (1 Minute Max.)
 Maximum Peak Power 0.5 Watt (3 µsec Max.)

Guaranteed Phase Noise Performance (dBc/Hz)

Frequency	Typical	Guarantee
100 Hz	-153	-149
1 kHz	-170	-166
10 kHz	-172	-168
100 kHz	-173	-169
1 MHz	-173	-169

Typical Performance Data



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

* Residual Phase Noise Test Conditions

Carrier Frequency: 200 MHz
 Power Output: +15.4 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	.22	-172	4.49	-179	.13	4	.24	177
50	.21	172	4.49	170	.13	-1	.23	179
100	.21	161	4.48	159	.13	-4	.23	177
200	.18	140	4.45	137	.13	-7	.24	174
400	.11	90	4.42	94	.14	-17	.24	168
600	.08	-13	4.38	48	.16	-32	.25	153
800	.12	-101	4.28	-3	.18	-51	.25	109
1000	.09	144	3.65	-71	.20	-82	.30	-23



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