

RF AMPLIFIER

MODEL *TM9118PM*

Available as: TM9118PM, 4 Pin TO-8 (T4)
 TN9118PM, 4 Pin Surface Mount (SM3)
 FP9118PM, 4 Pin Flatpack (FP4)
 BX9118PM, Connectorized Housing (H1)

Features

- Medium Gain: 14.7 dB Typical
- Output Power: +16 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	10 - 800 MHz	10 - 800 MHz
Gain (dB)	14.7	13.5 Min.
Power @ 1 dB Comp. (dBm)	+16	+15 Min.
Reverse Isolation (dB)	-19	-18 Max.
VSWR In	<1.5:1	2.0:1 Max.
VSWR Out	<1.5:1	2.0:1 Max.
Noise Figure (dB)	4.5	5.5 Max.
Power Vdc	+15	+15
mA	45	47 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 +39 dBm (Typ.)
 Second Order Two Tone Intercept Point +33 dBm (Typ.)
 Third Order Two Tone Intercept Point +26 dBm (Typ.)

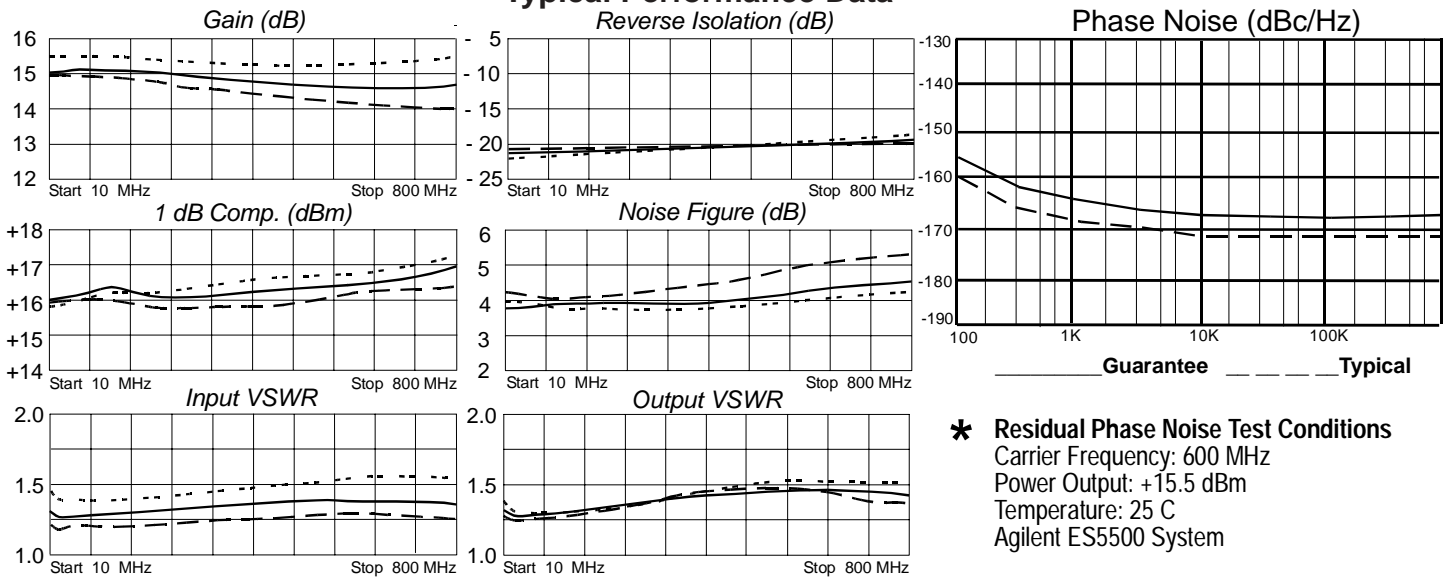
Maximum Ratings

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 (Min.)
100 Hz	-160	-156
1 kHz	-168	-164
10 kHz	-171	-167
100 kHz	-171	-167
1 MHz	-171	-167

Typical Performance Data



* Residual Phase Noise Test Conditions
 Carrier Frequency: 600 MHz
 Power Output: +15.5 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
10	.17	-155	6.02	-175	.08	6	.17	160
50	.16	176	6.06	173	.09	2	.15	158
100	.16	165	6.03	164	.09	1	.15	143
200	.17	148	5.88	147	.09	- 1	.16	114
400	.17	118	5.51	116	.10	- 2	.19	67
600	.17	89	5.30	88	.11	- 8	.20	31
800	.17	57	5.34	58	.12	-15	.19	- 2
1000	.13	19	5.53	25	.13	-23	.15	- 21



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