

RF AMPLIFIER

MODEL *TM9166*

Available as: TM9166, 4 Pin TO-8 (T4)
 TN9166, 4 Pin Surface Mount (SM3)
 FP9166, 4 Pin Flatpack (FP4)
 BX9166, Connectorized Housing (H1)

Features

- High Gain: 23.5 dB Typical
- Medium 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	10 - 1200 MHz	10 - 1200 MHz
Gain (dB)	23.5	22.0 Min.
Power @ 1 dB Comp. (dBm)	+15	+13.5 Min.
Reverse Isolation (dB)	-30.5	-29 Max.
VSWR In	<1.5:1	2.0:1 Max.
Out	<1.5:1	2.0:1 Max.
Noise Figure (dB)	<4.5	5.5 Max.
Power Vdc	+15	+15
mA	64	70 Max.

Note: Care should always be taken to effectively ground the case of each unit.

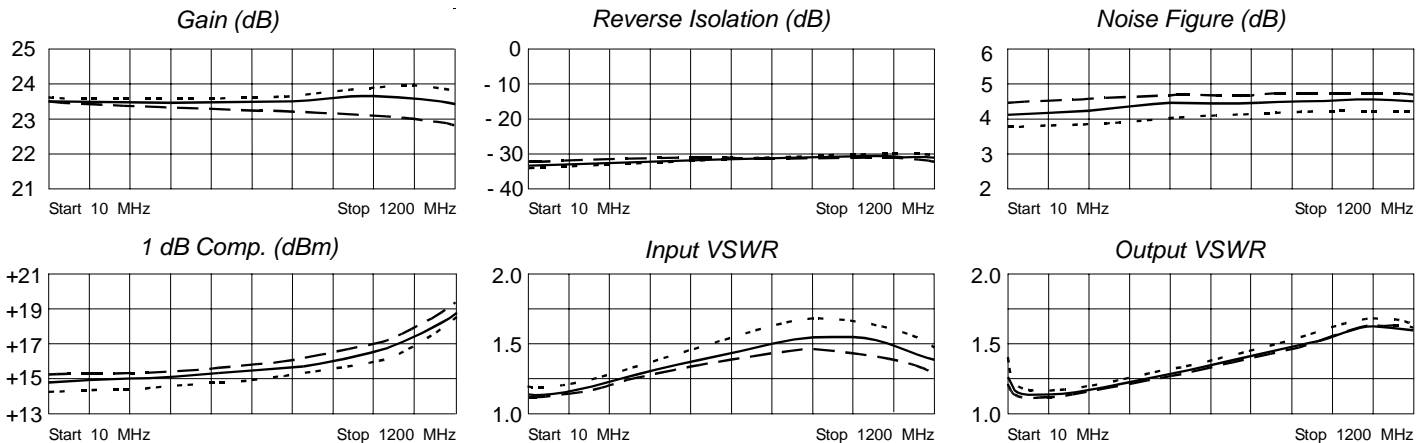
Typical Intermodulation Performance at 25 ° C

Second Order Harmonic Intercept Point.....+52 dBm (Typ.)
 Second Order Two Tone Intercept Point.....+46 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 Milliwatts (1 Minute Max.)
 Maximum Peak Power..... 0.5 Watt (3 µsec Max.)

Typical Performance Data



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	.07	163	14.98	5	.02	8	.11	133
50	.07	179	14.98	- 9	.02	2	.06	161
100	.07	-177	15.03	- 21	.02	2	.06	173
300	.12	171	14.98	- 65	.02	2	.09	165
500	.17	138	14.96	-109	.02	- 3	.14	129
700	.23	100	15.10	-154	.03	-10	.18	84
900	.24	57	15.11	159	.03	-19	.21	33
1200	.14	- 25	14.72	82	.03	-41	.23	- 51



Spectrum Microwave · 2144 Franklin Drive N.E. · Palm Bay, Florida 32905 · PH (888) 553-7531 · Fax (888) 553-7532 07/30/04

www.spectrummicrowave.com Spectrum Microwave (Europe) · 2707 Black Lake Place · Philadelphia, Pa. 19154 · PH (215) 464-4000 · Fax (215) 464-4001