RF AMPLIFIER MODEL *TM9502*

Available as: TM9502, 4 Pin TO-8 (T4)
TN9502, 4 Pin Surface Mount (SM3)
FP9502, 4 Pin Flatpack (FP4)
BX9502, Connectrized Housing (H1)
PN9502, Reduced Size Surface Mount (SM11)

Features

- Medium Gain: 10.5 dB Typical
- Frequency Range: 5 to 1500 MHz
- Operating Temp. -55 ºC to + 85 ºC
- Environmental Screening Available

Typical Intermodulation Performance at 25 ºC

Second Order Harmonic Intercept Point.....+37 dBm (Typ.)
Second Order Two Tone Intercept Point.....+32 dBm (Typ.)
Third Order Two Tone Intercept Point.....+24 dBm (Typ.)

Specifications

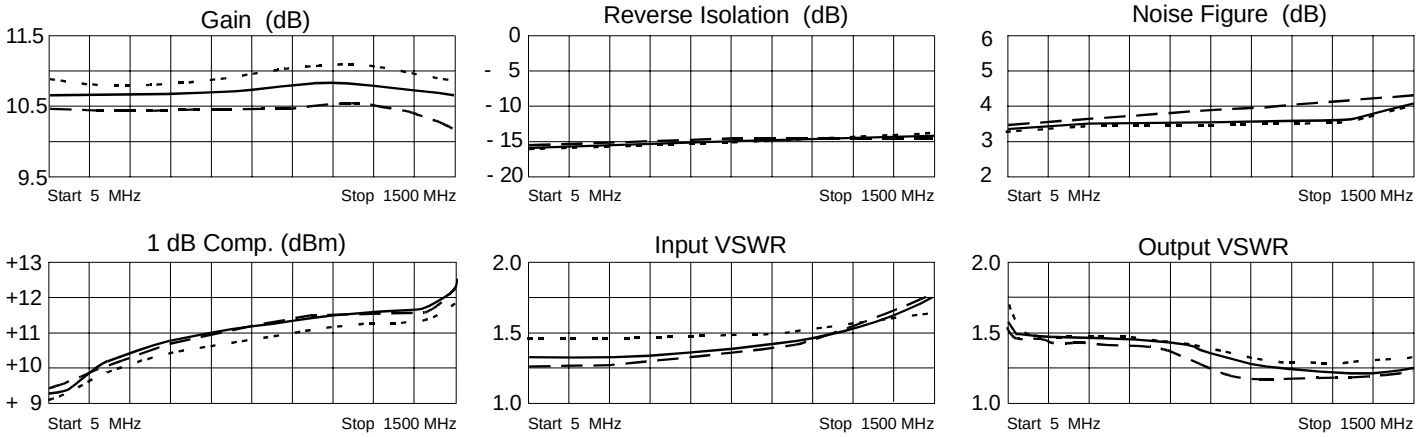
CHARACTERISTIC	TYPICAL Ta= 25 ºC	MIN/MAX Ta = -55 ºC to +85 ºC
Frequency	5 - 1500 MHz	5 - 1500 MHz
Gain (dB)	10.5	8.5 Min.
Power @ 1 dB Comp. (dBm)	+9	+7 Min.
Reverse Isolation (dB)	-13.5	-12.5 Max.
VSWR In Out	<1.5:1 <1.5:1	2.0:1 Max. 2.0:1 Max.
Noise Figure (dB)	4.0	5.5 Max.
Power Vdc mA	+15 23	+15 25 Max.

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

Maximum Ratings

Ambient Operating Temperature ..... -55ºC to +100 ºC
Storage Temperature ..... -62ºC to +125 ºC
Case Temperature ..... +125 ºC
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.)

Typical Performance Data



Legend ——— *+25 ºC* – – – *+85 ºC* - - - - - - *-55 ºC*

Linear S-Parameters

FREQ. MHz	S11 Mag	S11 Deg	Mag	Deg	S12 Mag	S12 Deg	S22 Mag	S22 Deg
5	.17	-142	3.39	-170	.16	12	.17	152
50	.14	-178	3.40	176	.17	1	.13	168
100	.14	178	3.41	170	.17	- 1	.12	163
250	.15	167	3.40	153	.17	- 3	.12	146
500	.16	155	3.41	126	.17	- 7	.11	120
750	.17	141	3.43	100	.18	- 12	.09	94
1000	.18	134	4.43	73	.18	- 15	.06	76
1250	.24	123	4.59	42	.20	- 23	.08	92
1500	.30	111	3.44	12	.21	- 28	.10	87

Spectrum Microwave · 2144 Franklin Drive N.E. · Palm Bay, Florida 32905 · PH (888) 553-7531 · Fax (888) 553-7532 08/24/90
www.SpectrumMicrowave.com *Spectrum Microwave · 2707 Black Lake Place · Philadelphia, Pennsylvania 19154 · PH (215) 464-4000 · Fax (215) 464-4001*