

RF AMPLIFIER

MODEL *TM9522*

Available as: TM9522, 4 Pin TO-8 (T4)
 TN9522, 4 Pin Surface Mount (SM3)
 FP9522, 4 Pin Flatpack (FP4)
 BX9522, Connectorized Housing (H1)

Features

- High Gain: +20.5 dBm Typical
- Output Power: +14 dBm Typical
- Operating Temp. - 55 °C to + 85 °C
- Environmental Screening Available

Typical Intermodulation Performance at 25 ° C

Second Order Harmonic Intercept Point.....+48 dBm (Typ.)
 Second Order Two Tone Intercept Point.....+42 dBm (Typ.)
 Third Order Two Tone Intercept Point.....+25 dBm (Typ.)

Specifications

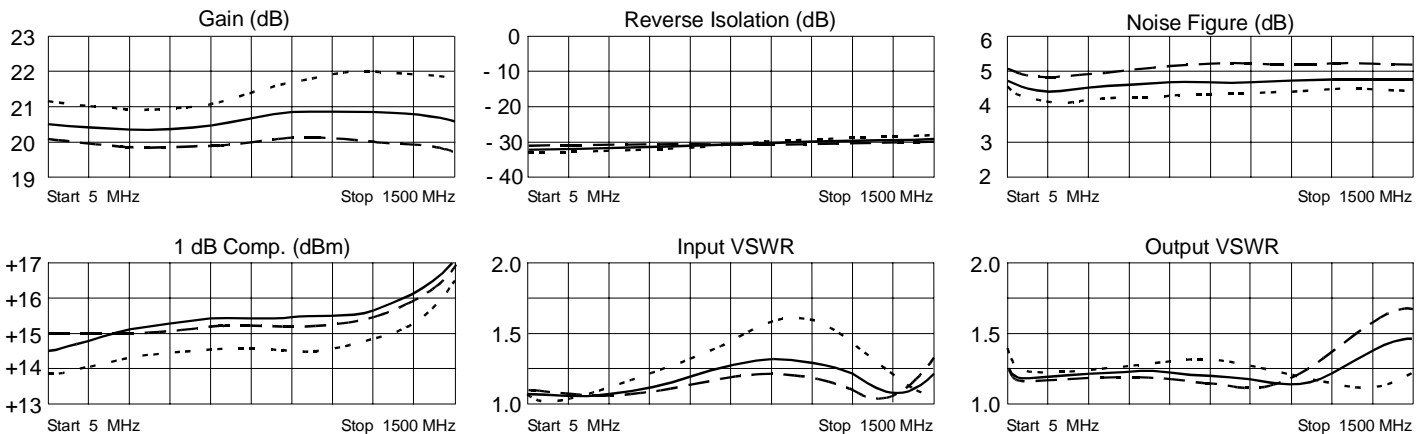
CHARACTERISTIC	TYPICAL Ta= 25 °C	MIN/MAX Ta = -55 °C to +85 °C
Frequency	5 - 1500 MHz	5 - 1500 MHz
Gain (dB)	20.5	18.5 Min.
Power @ 1 dB Comp. (dBm)	+14.0	+10.0 Min
Reverse Isolation (dB)	-30	-27 Max.
VSWR In	<1.5:1	2.0:1 Max.
Out	<1.5:1	2.0:1 Max.
Noise figure (dB)	<5.0	6.0 Max.
Power Vdc	+15	+15
mA	64	70 Max.

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.)

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

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	.02	50	10.88	5	.03	8	.12	145
50	.01	-33	10.84	-11	.03	-1	.08	166
100	.02	-74	10.62	-24	.03	-8	.08	172
300	.05	-154	10.50	-71	.03	-19	.09	166
500	.10	156	10.61	-119	.03	-35	.10	151
700	.17	110	10.95	-167	.03	-54	.10	133
900	.20	65	11.55	143	.03	-64	.07	117
1100	.19	20	11.83	89	.03	-83	.05	146
1300	.11	-30	11.55	32	.03	-100	.12	160
1500	.07	102	10.77	-27	.03	-125	.21	128



Spectrum Microwave · 2144 Franklin Drive N.E. · Palm Bay, Florida 32905 · PH (888) 553-7531 · Fax (888) 553-7532 4/13/04

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