

RF AMPLIFIER

MODEL *TM5122*

Available as: TM5122, 4 Pin TO-8 (T4)
 TN5122, 4 Pin Surface Mount (SM3)
 BX5122, Connectorized Housing (H1)

Features

- Medium Gain: 17.0 dB Typical
- Output Power: +20 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	10-500 MHz	10-500 MHz
Gain (dB)	17+/-0.5	15.5 Min.
Power @ 1 dB Comp. (dBm)	+20	+19 Min.
Reverse Isolation (dB)	-22	-20 Max.
VSWR In	<1.8:1	2.0:1 Max.
Out	<1.8:1	2.0:1 Max.
Noise Figure (dB)	4.2	4.6 Max.
Power Vdc	+15	+15 Max.
mA	60	65

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

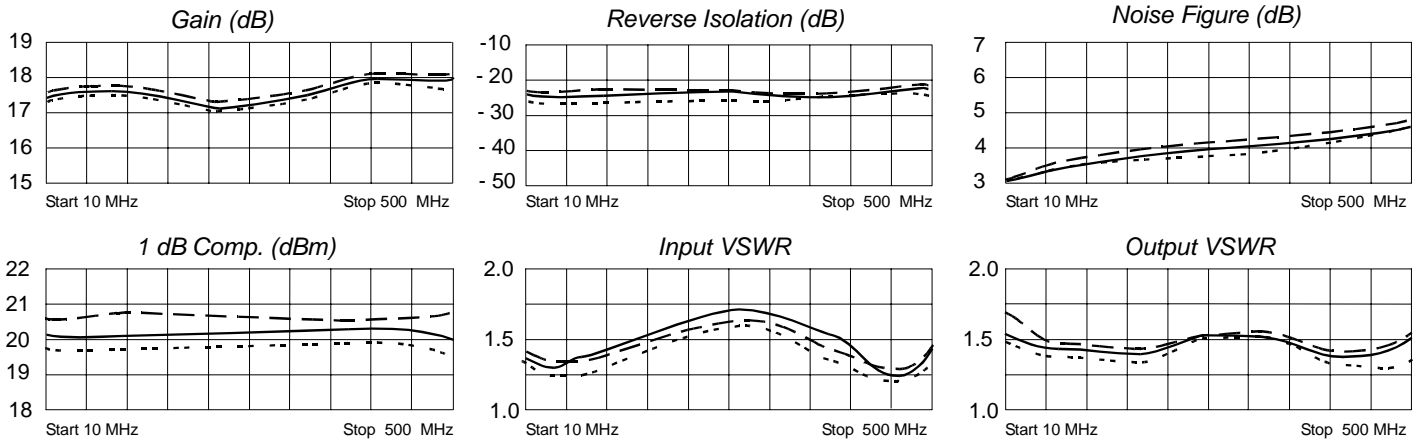
Typical Intermodulation Performance at 25 ° C

Second Order Harmonic Intercept Point..... +43 dBm (Typ.)
 Second Order Two Tone Intercept Point..... +38 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.... 100 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
5	.16	- 76	6.84	-156	.09	-155	.15	- 33
50	.04	- 87	7.19	166	.09	163	.08	20
100	.07	- 94	7.15	148	.09	145	.12	23
200	.15	-123	7.16	114	.10	108	.18	3
300	.24	-159	7.21	80	.11	75	.18	- 30
400	.29	155	7.38	43	.11	41	.16	- 82
500	.29	89	7.30	1	.11	5	.19	-161



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