RF AMPLIFIER
MODEL *TM7222*

Available as: TM7222, 4 Pin TO-8 (T4)
TN7222, 4 Pin Surface Mount (SM3)
FP7222, 4 Pin Flatpack (FP4)
BX7222, Connectorized Housing (H1)

Features

- Low Noise Figure: 2.9 dB Typical
- High Gain: 29 dB Typical
- Operating Temp. - 55 ºC to +85 ºC
- Environmental Screening Available

Typical Intermodulation Performance at 25 º C

Second Order Harmonic Intercept Point.....+44 dBm (Typ)
Second Order Two Tone Intercept Point.....+38 dBm (Typ)
Third Order Two Tone Intercept Point.....+32 dBm (Typ)

Specifications

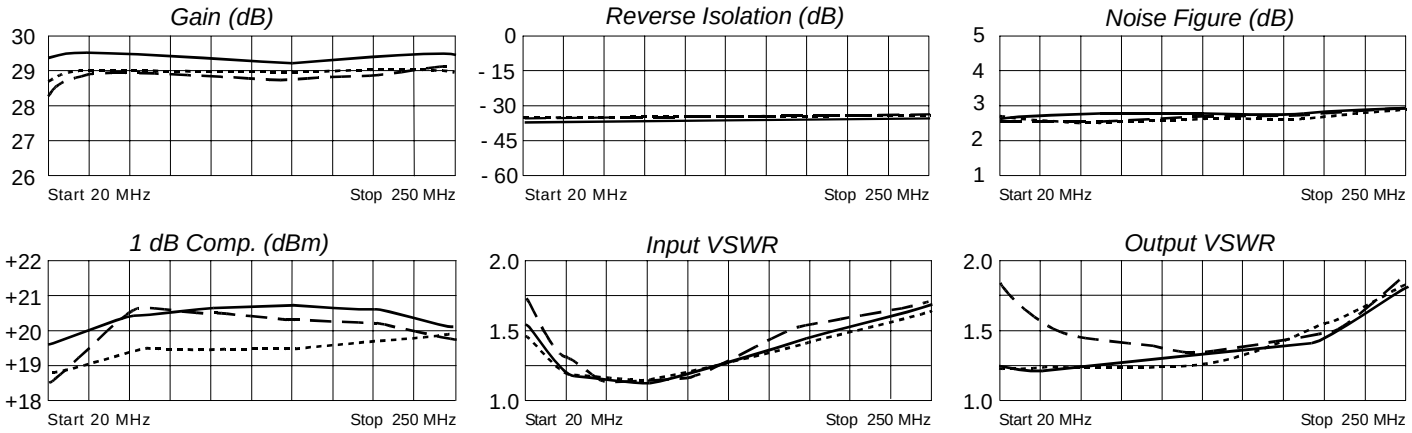
CHARACTERISTIC	TYPICAL Ta= 25 ºC	MIN/MAX Ta = -55 ºC to +85 ºC
Frequency	20-250 MHz	20-250 MHz
Gain (dB)	29	27.5 Min.
Power @ 1 dB Comp. (dBm)	+20.5	+18.0 Min.
Reverse Isolation (dB)	-34.5	-34 Max.
VSWR In Out	1.75:1 1.75:1	2.0:1 Max. 2.0:1 Max.
Noise Figure (dB)	2.9	4.0 Max.
Power Vdc mA	+15 47	+15 Min. 52 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 Watts (3 µsecMax.)

Typical Performance Data



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

Linear S-Parameters

FREQ. MHz	S11 Mag	S11 Deg	S21 Mag	S21 Deg	S12 Mag	S12 Deg	S22 Mag	S22 Deg
10	.42	- 86	26.71	-141	.02	16	.33	105
20	.21	-118	28.88	-170	.02	7	.18	95
50	.11	165	29.24	158	.02	- 1	.14	61
100	.17	95	28.73	124	.02	- 13	.14	- 0
150	.23	59	28.29	92	.02	- 18	.18	- 63
200	.28	29	27.96	60	.02	- 46	.26	-127
250	.29	- 4	28.50	27	.01	- 56	.38	-172
300	.26	- 53	31.16	- 12	.01	- 59	.46	156

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