

RF AMPLIFIER

MODEL *TM4172*

Available as: TM4172, 4 Pin TO-8 (T4)
 TN4172, 4 Pin Surface Mount (SM3)
 FP4172, 4 Pin Flatpack (FP4)
 BX4172, Connectorized Housing (H1)

Features

- n Low Noise Figure: 3.0 dB Typical
- n High Output Power: +23 dBm Typical
- n Operating Temp. - 55 °C to +85 °C
- n Environmental Screening Available

Specifications

CHARACTERISTIC	TYPICAL Ta= 25 °C	MIN/MAX Ta = -55 °C to +85 °C
Frequency	10 - 250 MHz	10 - 250 MHz
Gain (dB)	13.5	12.0 Min.
Power @ 1 dB Comp. (dBm)	+23	+21 Min.
Reverse Isolation (dB)	-20	-19 Max.
VSWR In	1.6:1	2.0:1 Max.
Out	1.6:1	2.0:1 Max.
Noise Figure (dB)	3.0	4.0 Max.
Power Vdc	+12	+12
mA	90	95 Max.

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

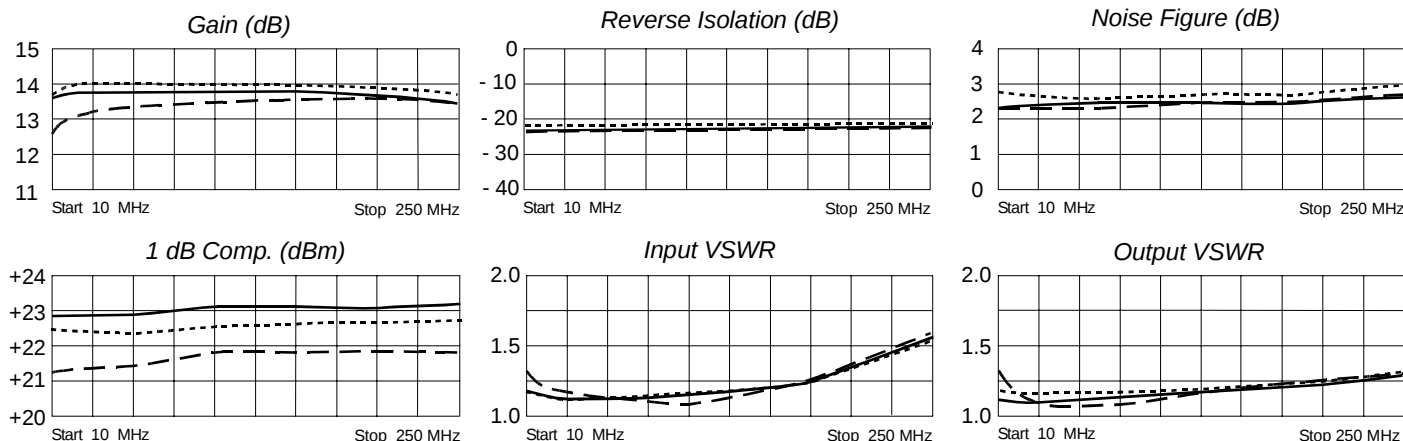
Typical Intermodulation Performance at 25 ° C

Second Order Harmonic Intercept Point +50 dBm (Typ.)
 Second Order Two Tone Intercept Point +43 dBm (Typ.)
 Third Order Two Tone Intercept Point +35 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 + 15 Volts
 Continuous RF Input Power + 13 dBm
 Short Term RF Input Power.... 100 Milliwatts (1 Minute Max.)
 Maximum Peak Power..... 0.2 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	.08	-112	4.80	-169	.0725	-171	.07	-6
50	.05	-159	4.84	168	.0731	165	.06	-21
100	.04	-139	4.86	151	.0769	149	.06	-49
150	.07	-114	4.88	135	.0797	132	.06	-81
200	.14	-120	4.87	118	.0816	114	.06	-127
250	.22	-139	4.76	100	.0854	99	.09	-163



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