

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)
 PN4172, Reduced Size Surface Mount (SM11)

Features

- Low Noise figure: 3.0 dB Typical
- High Output Power: +23 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 - 250	10 - 250
Gain (dB)	13.5	12.0 Min.
Power @ 1 dB Comp. (dBm)	+23	+21 Min.
Reverse Isolation (dB)	- 20	Max.
VSWR In	1.6:1	2.0:1 Max.
VSWR 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.

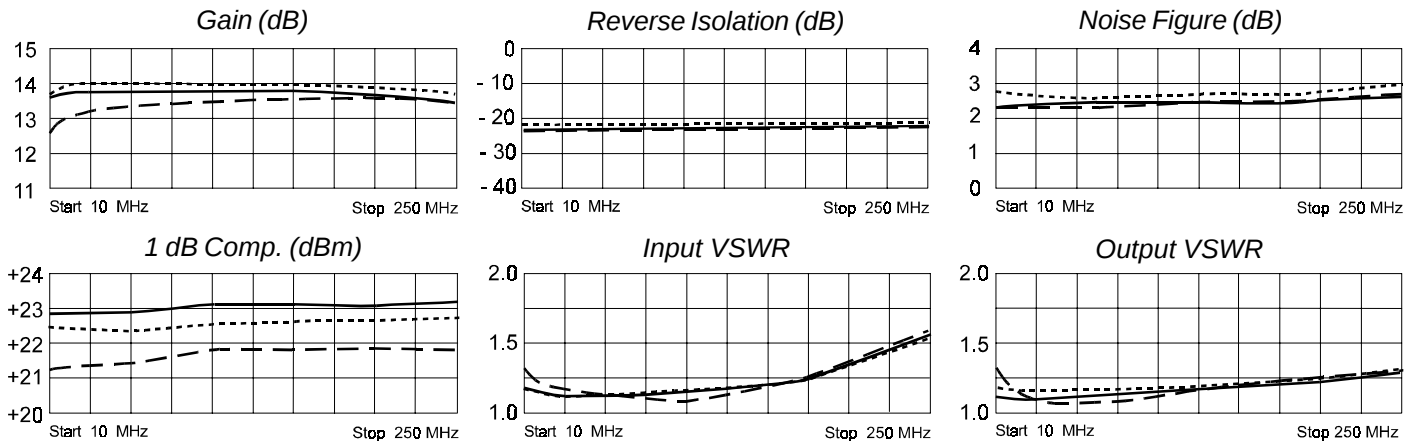
Typical Intermodulation Performance at 25 ° C

Second Order Harmonic Intercept Point +50(Typ.)
 Second Order Two Tone Intercept Point +43(Typ.)
 Third Order Two Tone Intercept Point +35(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----- Mag Deg	-----S21----- Mag Deg	-----S12----- Mag Deg	-----S22----- 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

Amplifonix

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