

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

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.)

Specifications

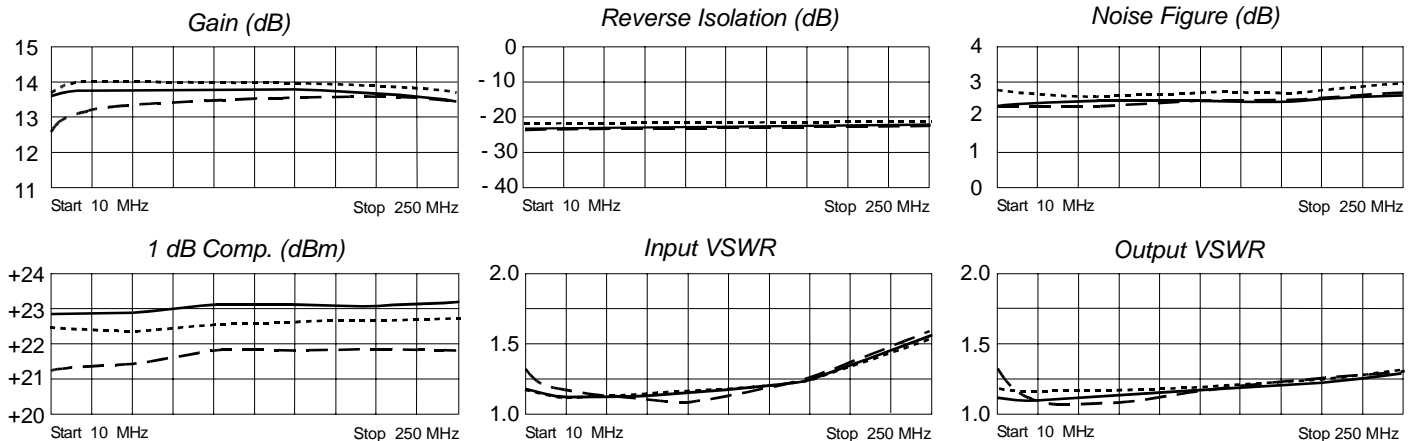
CHARACTERISTIC		TYPICAL Ta= 25 °C	MIN/MAX Ta = -55 °C to +85 °C
Frequency		10 - 250 MHz	10 - 250 MHz
Gain (dB)		13.5	12.0 Min.
Power @ 1 dB Comp. (dBm)		+23	+21 Min.
Reverse Isolation (dB)		-20	-19 Max.
VSWR	In	1.6:1	2.0:1 Max.
	Out	1.6:1	2.0:1 Max.
Noise Figure (dB)		3.0	4.0 Max.
Power	Vdc	+12	+12
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

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.)

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	.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



Spectrum Microwave · 2144 Franklin Drive N.E. · Palm Bay, Florida 32905 · PH (888) 553-7531 · Fax (888) 553-7532 06/02/04

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