

RF AMPLIFIER

MODEL TM7148

Available as: TM7148, 4 Pin TO-8 (T4)
TN7148, 4 Pin Surface Mount (SM3)
BX7148, Connectorized Housing (H1)

Features

- Medium Gain: 13.5 dB Typical
- High Output Power: +25 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 - 350 MHz	10 - 250 MHz
Gain (dB)	13.5	12 Min.
Power @ 1 dB Comp. (dBm)	+25	+23.5 Min.
Reverse Isolation (dB)	-17.5	-16.5 Max.
VSWR In	<1.5:1	1.8:1 Max.
VSWR Out	<1.5:1	1.8:1 Max.
Noise Figure (dB)	3.2	4.5 Max.
Power Vdc	+15	+15 Min.
mA	108	114 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 +63 dBm (Typ.)

Second Order Two Tone Intercept Point +57 dBm (Typ.)

Third Order Two Tone Intercept Point +42 dBm (Typ.)

*Measured at 100 MHz.

Maximum Ratings

Ambient Operating Temperature -55°C to +100 °C

Storage Temperature -62°C to +125 °C

Case Temperature +125 °C

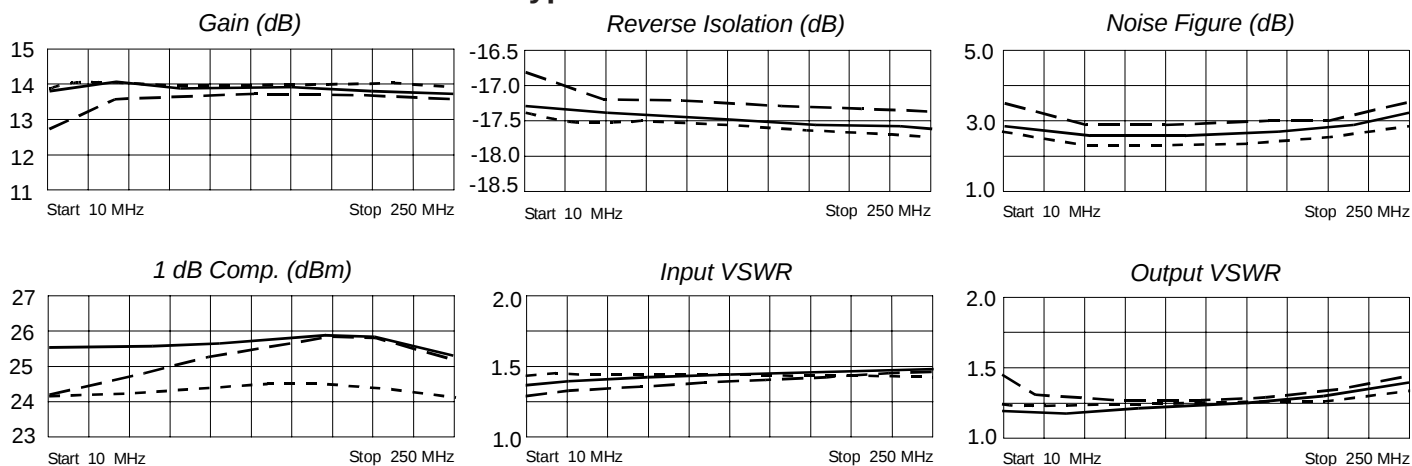
DC Voltage + 17 Volts

Continuous RF Input Power +15 dBm

Short Term RF Input Power 50 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
10	.14	- 14	5.01	-169	.1184	-169	.04	- 41
50	.15	- 33	5.06	168	.1185	168	.02	- 26
100	.15	- 61	5.02	153	.1204	152	.03	- 13
150	.16	- 89	5.01	138	.1217	138	.04	- 14
200	.17	-116	5.00	124	.1238	123	.06	- 29
250	.18	-143	5.00	109	.1259	109	.08	- 46
300	.19	-170	4.98	94	.1284	94	.11	- 62
350	.20	162	4.96	79	.1311	80	.15	- 79



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Rev.
6/10/08

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