

RF AMPLIFIER

MODEL *TM7111*

Available as: TM7111, 4 Pin TO-8 (T4)
 TN7111, 4 Pin Surface Mount (SM3)
 FP7111, 4 Pin Flatpack (FP4)
 BX7111, Connectorized Housing (H1)

Features

- Low Noise Figure: 1.4 dB Typical
- Medium Output Power: +17 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	10-100 MHz	10-100 MHz
Gain (dB)	12.5	11.0 Min.
Power @ 1 dB Comp. (dBm)	+17	+15.5 Min.
Reverse Isolation (dB)	-15	-14 Max.
VSWR In	<1.75:1	2.0:1 Max.
Out	<1.75:1	2.0:1 Max.
Noise Figure (dB)	1.4	2.0 Max.
Power Vdc	+15	+15 Min.
mA	14	15 Max.

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

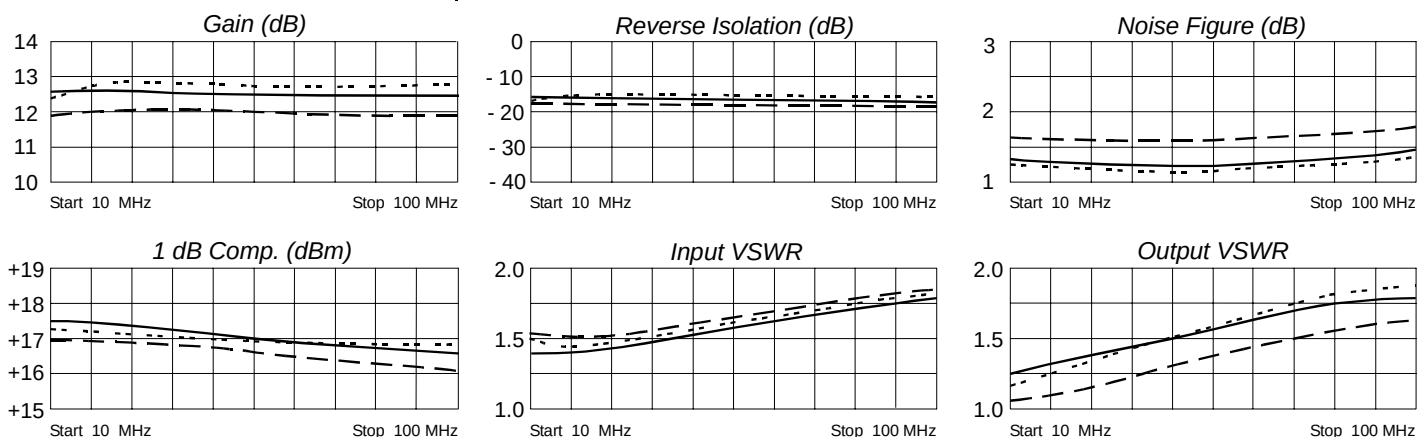
Typical Intermodulation Performance at 25 ° C

Second Order Harmonic Intercept Point..... +53 dBm (Typ.)
 Second Order Two Tone Intercept Point..... +47 dBm (Typ.)
 Third Order Two Tone Intercept Point..... +33 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 + 18 Volts
 Continuous RF Input Power + 13 dBm
 Short Term RF Input Power 50 Milliwatts (1 Minute Max.)
 Maximum Peak Power 0.5 Watt (3 µsec Max.)

Typical Performance Data



Linear S-Parameters

FREQ. MHz	S11		S21		S12		S22	
	Mag	Deg	Mag	Deg	Mag	Deg	Mag	Deg
5	.16	177	4.24	5	.17	5	.10	23
10	.15	178	4.32	- 3	.17	- 3	.11	- 6
25	.16	-178	4.32	- 18	.17	- 17	.15	- 46
50	.21	175	4.26	- 38	.16	- 36	.21	- 80
75	.25	160	4.21	- 58	.16	- 56	.27	-102
100	.28	141	4.17	- 77	.15	- 74	.29	-119
150	.19	109	4.25	-123	.14	-119	.17	-128



Spectrum Microwave · 2144 Franklin Drive N.E. · Palm Bay, Florida 32905 · PH (888) 553-7531 · Fax (888) 553-7532 6/23/04

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