

RF Amplifier

Low Noise: 2 dB

Model TM7102

20 to 150 MHz

Features

- Low Noise Figure: 2 dB Typical
- Medium Output Power: +17 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	20-150 MHz	20-150 MHz
Gain (dB)	24.5	22.5 Min.
Power @ 1 dB Comp. (dBm)	+17	+16.0 Min.
Reverse Isolation (dB)	-28	-27 Max.
VSWR In	<1.5:1	2.0:1 Max.
Out	<1.5:1	2.0:1 Max.
Noise Figure (dB)	2.0	3.0 Max.
Power Vdc	+15	+15 Min.
mA	31	35 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..... +46 dBm (Typ.)
Second Order Two Tone Intercept Point..... +40 dBm (Typ.)
Third Order Two Tone Intercept Point..... +29 dBm (Typ.)

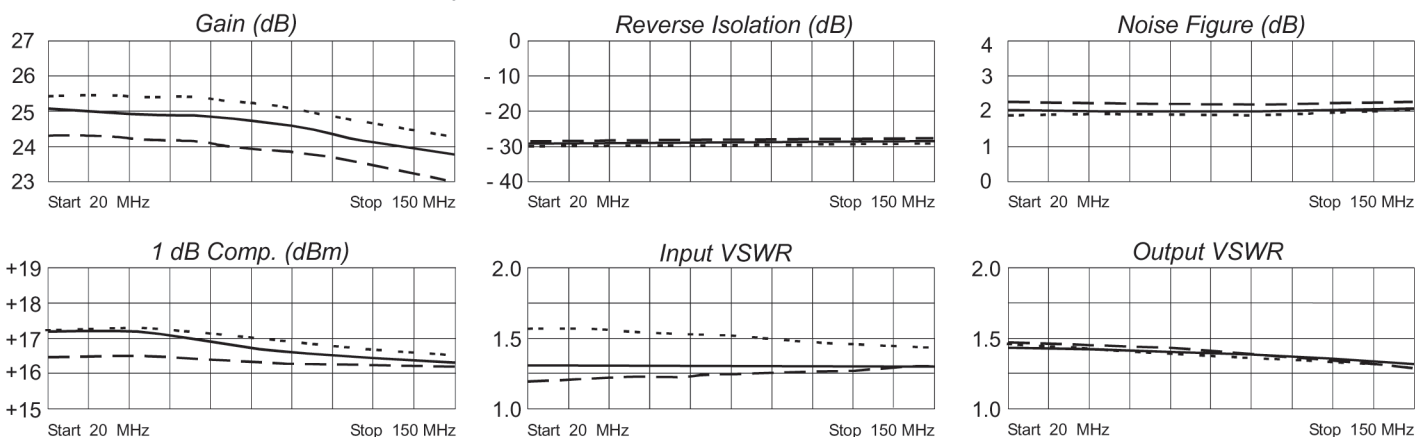
Maximum Ratings

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.)

Packaging Options (see Appendix)

TM7102, 4 Pin TO-8 (T4)
TN7102, 4 Pin Surface Mount (SM3)
FP7102, 4 Pin Flatpack (FP4)
BX7102, Connectorized Housing (H1)

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	.13	-148	17.84	-179	.04	6	.20	163
20	.13	-162	17.93	173	.03	2	.18	169
50	.13	-169	17.64	157	.04	4	.17	174
100	.12	-171	16.64	133	.03	-5	.16	178
150	.12	-166	15.32	111	.04	-7	.13	-180
200	.12	-158	13.90	90	.04	-13	.10	-165



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