

RF AMPLIFIER

MODEL *TM7101*

Available as: TM7101, 4 Pin TO-8 (T4)
 TN7101, 4 Pin Surface Mount (SM3)
 FP7101, 4 Pin Flatpack (FP4)
 BX7101, Connectorized Housing (H1)

Features

- Low Noise Figure: 1.8 dB Typical
- High Gain: 27.5 dB 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	10-150 MHz	10-150 MHz
Gain (dB)	27.5	26.0 Min.
Power @ 1 dB Comp. (dBm)	+16.5	+15.0 Min.
Reverse Isolation (dB)	-31.5	-30 Max.
VSWR In	<1.5:1	2.0:1 Max.
Out	<1.25:1	2.0:1 Max.
Noise Figure (dB)	1.8	2.5 Max.
Power Vdc	+15	+15 Min.
mA	20	23 Max.

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

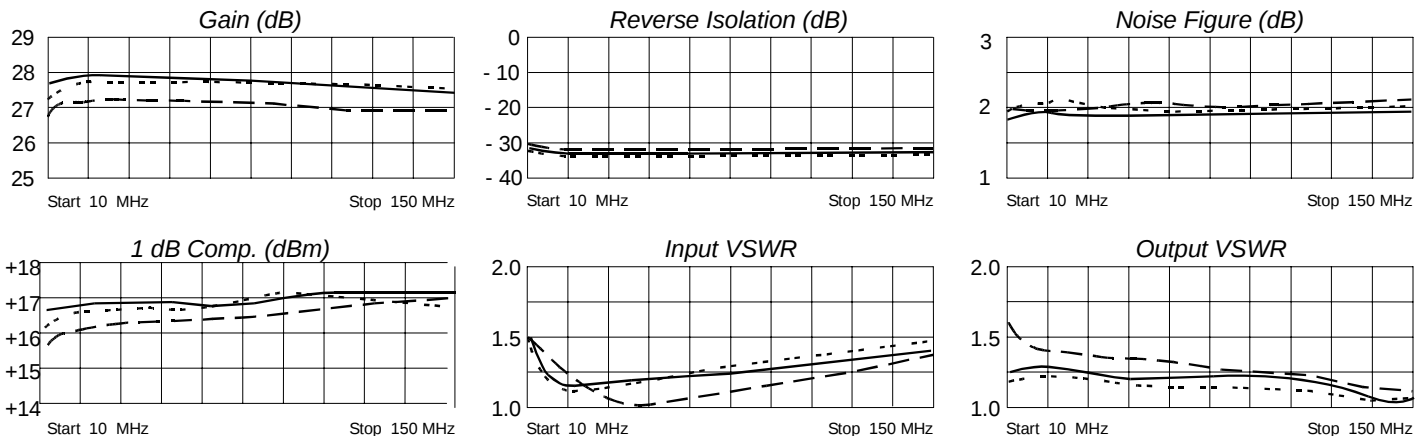
Typical Intermodulation Performance at 25 ° C

Second Order Harmonic Intercept Point..... +41dBm (Typ.)
 Second Order Two Tone Intercept Point..... +35 dBm (Typ.)
 Third Order Two Tone Intercept Point..... +30 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



Legend ——— + 25 °C - - - + 85 °C -55 °C

Linear S-Parameters

FREQ. MHz	S11		S21		S12		S22	
	Mag	Deg	Mag	Deg	Mag	Deg	Mag	Deg
5	.23	- 99	24.64	-165	.02	- 4	.11	-161
25	.09	-145	25.10	175	.02	- 1	.13	171
50	.07	151	24.87	158	.02	- 1	.12	153
75	.09	109	24.67	144	.02	- 1	.11	133
100	.12	81	24.39	130	.02	- 2	.08	124
125	.14	64	24.14	117	.02	-10	.05	105
150	.16	53	23.80	105	.03	-10	.02	87
200	.20	26	23.32	79	.03	-15	.04	-132
300	.24	- 32	23.14	27	.02	-47	.13	-169



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