

RF AMPLIFIER

MODEL *TM7271*

Available as: TM7271, 4 Pin TO-8 (T4)
 TN7271, 4 Pin Surface Mount (SM3)
 FP7271, 4 Pin Flatpack (FP4)
 BX7271, Connectorized Housing (H1)

Features

- Low Noise Figure: 1.5 dB Typical
- High Gain: 18 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	1-300 MHz	5-250 MHz
Gain (dB)	18	16.0 Min.
Power @ 1 dB Comp. (dBm)	+0.5	-1.0 Min.
Reverse Isolation (dB)	-23	-22 Max.
VSWR In	<1.25:1	2.0:1 Max.
VSWR Out	<1.25:1	2.0:1 Max.
Noise Figure (dB)	1.5	2.8 Max.
Power Vdc	+15	+15 Min.
mA	9	12 Max.

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

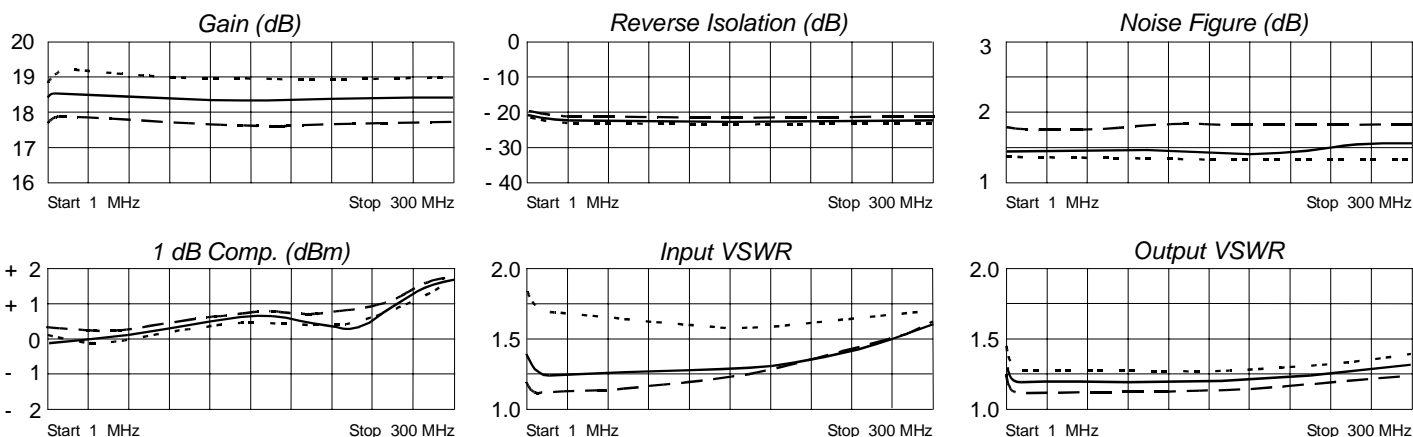
Typical Intermodulation Performance at 25 °C

Second Order Harmonic Intercept Point..... +18 dBm (Typ.)
 Second Order Two Tone Intercept Point..... +13 dBm (Typ.)
 Third Order Two Tone Intercept Point..... +10 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
1	.16	-148	8.36	-163	.05	20	.12	-140
5	.12	-173	8.48	-178	.06	4	.09	-174
50	.11	-178	8.39	167	.06	- 1	.08	162
100	.11	-171	8.31	154	.06	- 2	.08	150
150	.12	-161	8.23	142	.06	- 4	.08	143
200	.14	-155	8.25	129	.06	- 6	.09	136
250	.18	-154	8.28	116	.06	- 9	.12	130
300	.22	-157	8.33	103	.07	-11	.15	121



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