

RF AMPLIFIER

MODEL *TM5150*

Available as: TM5150, 4 Pin TO-8 (T4)
 TN5150, 4 Pin Surface Mount (SM3)
 FP5150, 4 Pin Flatpack (FP4)
 BX5150, Connectorized Housing (H1)

Features

- Low Noise Figure: 3.9 dB Typical
- Output Power: +18 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	10-300 MHz	10-300 MHz
Gain (dB)	20.0	19.0 Min.
Power @ 1 dB Comp. (dBm)	+18	+17 Min.
Reverse Isolation (dB)	-23	---
VSWR In	1.5:1	2.0:1 Max.
Out	1.5:1	2.0:1 Max.
Noise Figure (dB)	3.9	4.4 Max.
Power Vdc	+15	+15 Min.
mA	46	55 Max.

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

Revision July 11, 2023

Typical Intermodulation Performance at 25 ° C

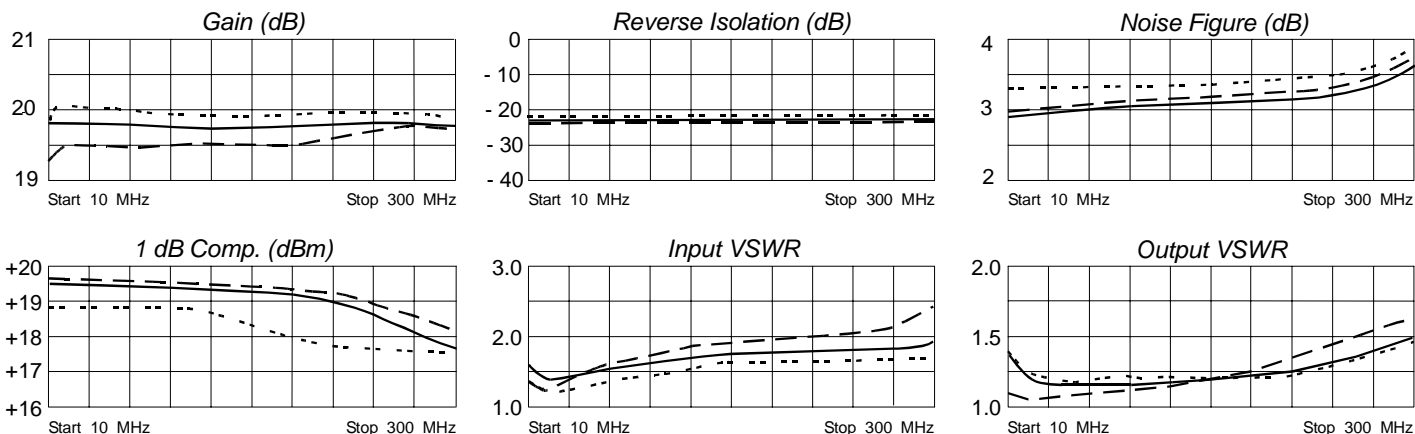
Second Order Harmonic Intercept Point.....+45 dBm (Typ.)
 Second Order Two Tone Intercept Point.....+40 dBm (Typ.)
 Third Order Two Tone Intercept Point.....+30 dBm (Typ.)

Maximum (NO DAMAGE) 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 Milliwatt (1 Minute Max.)
 Maximum Peak Power 0.5 Watt (3 µsec Max.)

ECN: Noise Figure changed from 2.5 dB to 3.9 dB.
 Input VSWR improved to 2.0:1 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	.23	- 44	9.95	-173	.07	-172	.16	- 76
50	.19	- 57	10.0	159	.07	158	.07	- 87
100	.24	- 94	9.90	136	.07	133	.07	- 79
200	.29	-162	9.76	90	.07	86	.09	- 77
300	.30	121	9.91	38	.07	37	.21	-108

