

RF AMPLIFIER

MODEL *TM5110*

Available as: TM5110, 4 Pin TO-8 (T4)
 TN5110, 4 Pin Surface Mount (SM3)
 FP5110, 4 Pin Flatpack (FP4)
 BX5110, Connectorized Housing (H1)

Features

- Low Noise Figure: <2.5 dB Typical
- Medium Gain: 15 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	5 - 500 MHz	10 - 500 MHz
Gain (dB)	15	14.0 Min.
Power @ 1 dB Comp. (dBm)	+10.5	+9.0 Min.
Reverse Isolation (dB)	- 21	- 20 Max.
VSWR In	<1.5:1	2.0:1 Max.
Out	<1.5:1	2.0:1 Max.
Noise figure (dB)	<2.5	3.0 Max.
Power Vdc	+15	+15
mA	25	27 Max.

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

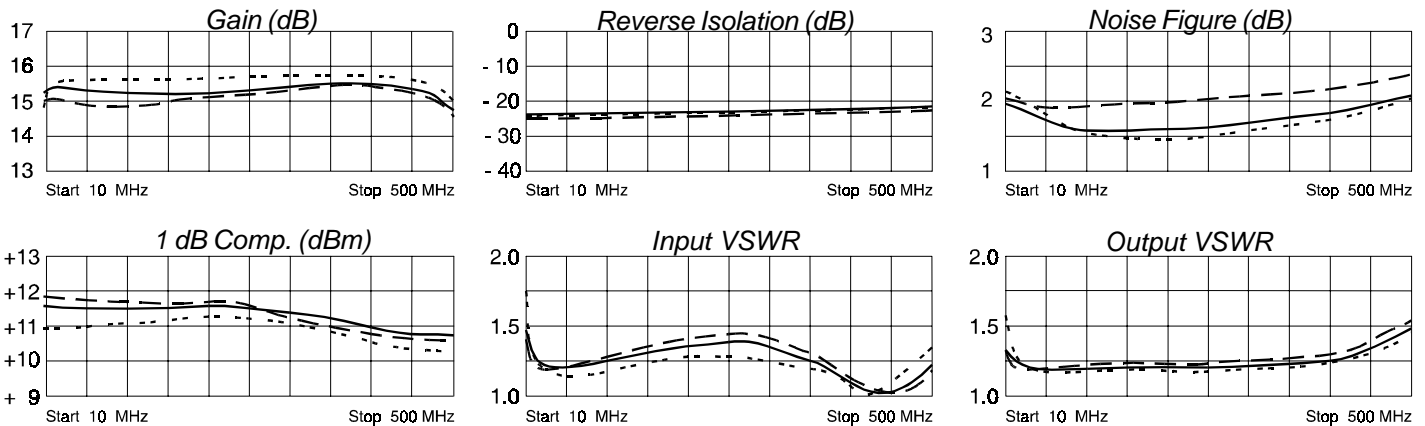
Typical Intermodulation Performance at 25 ° C

Second Order Harmonic Intercept Point +39 (Typ.)
 Second Order Two Tone Intercept Point +33 (Typ.)
 Third Order Two Tone Intercept Point +25 (Typ.)

Maximum Ratings

Ambient Operating Temperature -55°C to + 100 °C
 Storage Temperature -62°C to + 125 °C
 Case Temperature + 125 °C
 DC Voltage + 18Volts
 Continuous RF Input Power + 13 dBm
 Short Term RF Input Power 100 Milliwatts
 (1 Minute Max.)
 Maximum Peak Power 0.2 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	.25	- 51	5.61	-161	.07	-164	.21	- 44
10	.15	- 41	5.79	-173	.08	-175	.14	- 36
50	.09	- 26	5.80	163	.08	160	.10	- 17
100	.11	- 33	5.78	144	.08	140	.10	- 19
200	.14	- 62	5.81	106	.08	99	.09	- 35
300	.14	- 97	5.89	66	.08	62	.10	- 71
400	.06	-125	5.93	22	.09	25	.13	-130
500	.11	- 11	5.48	- 27	.09	- 13	.21	168



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