

RF AMPLIFIER

MODEL *TM5105*

Available as: TM5105, 4 Pin TO-8 (T4)
 TN5105, 4 Pin Surface Mount (SM3)
 FP5105, 4 Pin Flatpack (FP4)
 BX5105, Connectorized Housing (H1)

Features

- Low Noise Figure: <2.75 dB Typical
- Medium Gain: 12 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 - 300 MHz	5 - 300 MHz
Gain (dB)	12	11.0 Min.
Power @ 1 dB Comp. (dBm)	+7	+5.5 Min.
Reverse Isolation (dB)	- 18.5	- 16 Max.
VSWR In	<1.5:1	2.0:1 Max.
VSWR Out	<1.6:1	2.0:1 Max.
Noise figure (dB)	<2.75	4.0 Max.
Power Vdc	+15	+15
mA	17	19 Max.

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

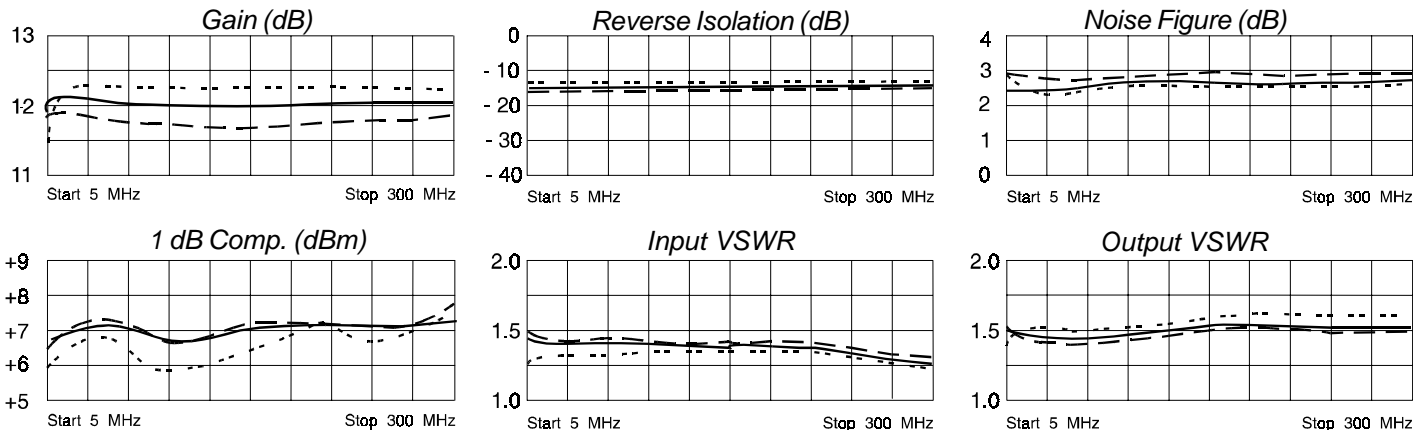
Typical Intermodulation Performance at 25 ° C

Second Order Harmonic Intercept Point +35(Typ.)
 Second Order Two Tone Intercept Point +29(Typ.)
 Third Order Two Tone Intercept Point +21(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	.19	-15	3.93	-165	.11	-165	.21	-10
10	.18	-9	4.02	-174	.12	-175	.21	-6
50	.17	-9	4.00	168	.12	168	.20	-8
100	.16	-13	3.99	155	.12	154	.20	-14
200	.15	-31	4.00	128	.12	128	.22	-34
300	.12	-66	4.03	101	.12	102	.22	-68
400	.10	-145	4.04	72	.12	75	.23	-116



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