RF AMPLIFIER
MODEL *TR3010*

Available as: TR3010, 4 Pin TO-8B (T8)
RN3010, 4 Pin Surface Mount (SM19)
BR3010, Connectorized Housing (H2)

Features

- High Gain: 30 dB Typical
- High Output Power: +21.5 dBm Typical
- Operating Temp. -55 ºC to +85 ºC
- Environmental Screening Available

Specifications

CHARACTERISTIC	TYPICAL Ta= 25 ºC	MIN/MAX Ta = -55 ºC to +85 ºC
Frequency	5 - 500 MHz	5 - 500 MHz
Gain (dB)	30	28.0 Min.
Power @ 1 dB Comp. (dBm)	+21.5	+20.0 Min.
Reverse Isolation (dB)	-32	-28 Max.
VSWR In	<1.25:1	2.0:1 Max.
Out	<1.75:1	2.0:1 Max.
Noise Figure (dB)	<3.5	5.0 Max.
Power Vdc	+12	+12
mA	130	140 Max.

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

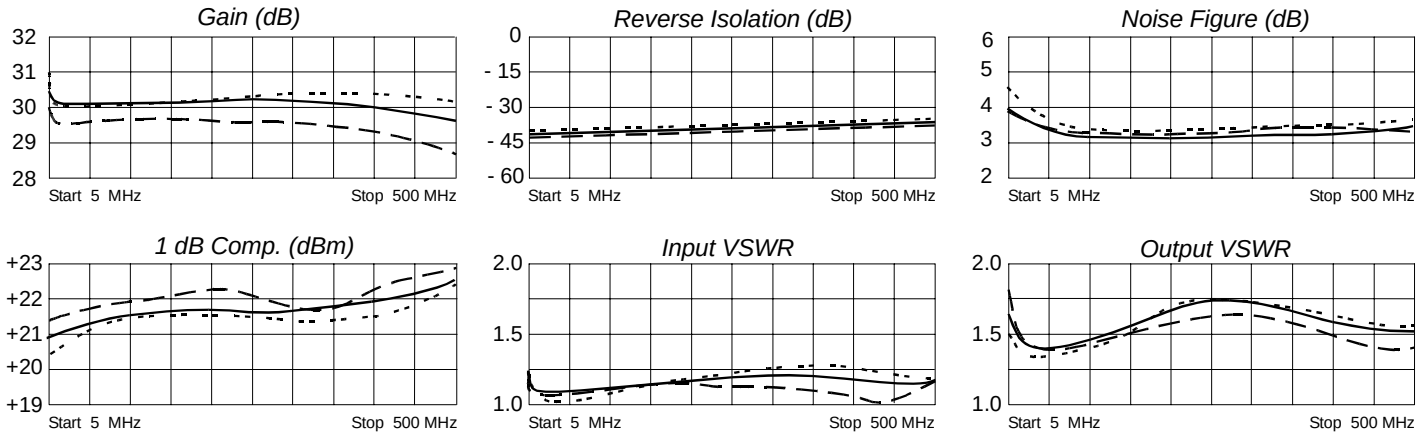
Typical Intermodulation Performance at 25 º C

Second Order Harmonic Intercept Point ..... +54 dBm (Typ.)
Second Order Two Tone Intercept Point ..... +48 dBm (Typ.)
Third Order Two Tone Intercept Point ..... +34 dBm (Typ.)

Maximum Ratings

Ambient Operating Temperature ..... -55ºC to + 100 ºC
Storage Temperature ..... -62ºC to + 125 ºC
Case Temperature ..... + 125 ºC
DC Voltage ..... + 15 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 ºC* – – – *+ 85 ºC* - - - - - - *-55 ºC*

Linear S-Parameters

FREQ. MHz	S11 Mag	S11 Deg	S21 Mag	S21 Deg	S12 Mag	S12 Deg	S22 Mag	S22 Deg
5	.08	105	33.56	15	.01	13	.22	-162
50	.04	- 30	31.60	- 21	.01	7	.16	-165
100	.05	- 76	31.69	- 44	.01	9	.19	-162
200	.06	-149	31.97	- 90	.01	3	.26	-176
300	.08	148	32.04	-138	.01	- 1	.29	163
400	.07	78	30.84	172	.02	- 2	.23	140
500	.07	- 45	29.03	121	.02	-18	.19	123

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