

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 °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	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.

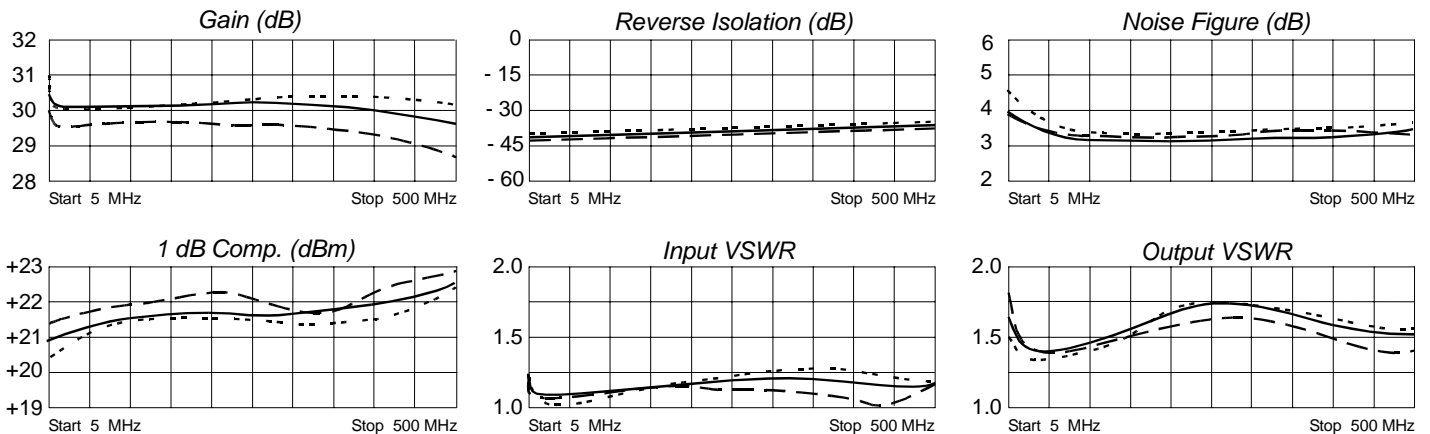
Typical Intermodulation Performance at 25 ° C

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 -55°C to + 100 °C
 Storage Temperature -62°C to + 125 °C
 Case Temperature + 125 °C
 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 °C - - - - + 85 °C ······ -55 °C

Linear S-Parameters

FREQ. MHz	S11		S21		S12		S22	
	Mag	Deg	Mag	Deg	Mag	Deg	Mag	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



Spectrum Microwave · 2144 Franklin Drive N.E. · Palm Bay, Florida 32905 · PH (888) 553-7531 · Fax (888) 553-7532 06/02/04

www.spectrummicrowave.com Spectrum Microwave (Europe) · 2707 Black Lake Place · Philadelphia, Pa. 19154 · PH (215) 464-4000 · Fax (215) 464-4001