

RF AMPLIFIER

MODEL TR3020

Available as: TR3020, 4 Pin TO-8B (T8)
RN3020, Surface Mount (SM19)
BR3020, Connectorized Housings (H2)

Features

- High Output Power: +28 dBm Typical
- High Gain: 21.5 dB Typical
- Operating Temp. - 55 °C to +70 °C
- Environmental Screening Available

Specifications

CHARACTERISTIC	TYPICAL Tc = 25 °C	MIN/MAX Tc = -55 °C to +70 °C
Frequency	500 - 1000 MHz	500 - 1000 MHz
Gain (dB)	21.5	20.75 Min.
Power @ 1 dB Comp. (dBm)	+28	+27 Min.
Reverse Isolation (dB)	-35	-33 Max.
VSWR In Out	<1.8:1 <1.5:1	2.0:1 Max. 2.0:1 Max.
Noise Figure (dB)	<4.4	5.4 Max.
VSWR Vdc mA	+15 255	+15 270 Max.

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

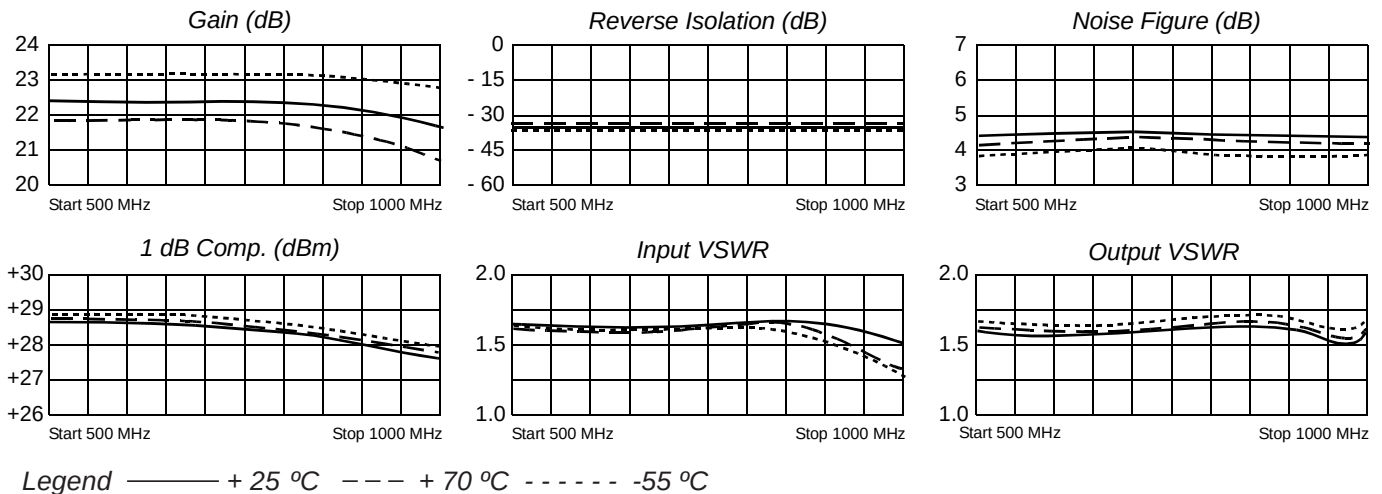
Typical Intermodulation Performance at 25 ° C

Second Order Harmonic Intercept Point +45 dBm (Typ.)
Second Order Two Tone Intercept Point +42 dBm (Typ.)
Third Order Two Tone Intercept Point +39 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 + 18 Volts
Continuous RF Input Power + 13 dBm
Short Term RF Input Power 100 Milliwatts (1 Minute Max.)
Maximum Peak 0.5 Watt (3 µsec Max.)

Typical Performance Data



Linear S-Parameters

FREQ. MHz	S11		S21		S12		S22	
	Mag	Deg	Mag	Deg	Mag	Deg	Mag	Deg
500	.29	108	13.41	-155	.0127	-35	.30	111
600	.28	86	13.28	174	.0175	-45	.29	97
700	.24	62	13.04	142	.0178	-71	.28	83
800	.22	37	12.83	110	.0164	-64	.26	72
900	.18	10	12.42	78	.0180	-74	.26	63
1000	.14	-18	12.52	46	.0179	-101	.28	55



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