

# RF AMPLIFIER

## MODEL TR9770

Available as: TR9770, 4 Pin TO-8B (T8)  
 TR9770-9, 12 Pin TO-8B (T9)  
 RN9770, 4 Pin Surface Mount (SM19)  
 BR9770, Connectorized Housing (H2)

### Features

- n Low Noise Figure: 1 dB Typical
- n Unconditionally Stable
- n Operating Temp. - 55 °C to +85 °C
- n Environmental Screening Available

### Specifications

CHARACTERISTIC	TYPICAL Ta= 25 °C	MIN/MAX Ta = -55 °C to +85 °C
Frequency	800 - 1200 MHz	800 - 1200 MHz
Gain (dB)	25	24 Min.
Power @ 1 dB Comp. (dBm)	+14	+13 Min.
Reverse Isolation (dB)	-38	-36 Max.
VSWR In	1.8:1	2.0:1 Max.
Out	1.8:1	2.0:1 Max.
Noise Figure (dB)	1.0	1.75 Max.
Power Vdc	+15	+15
mA	62	65 Max.

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

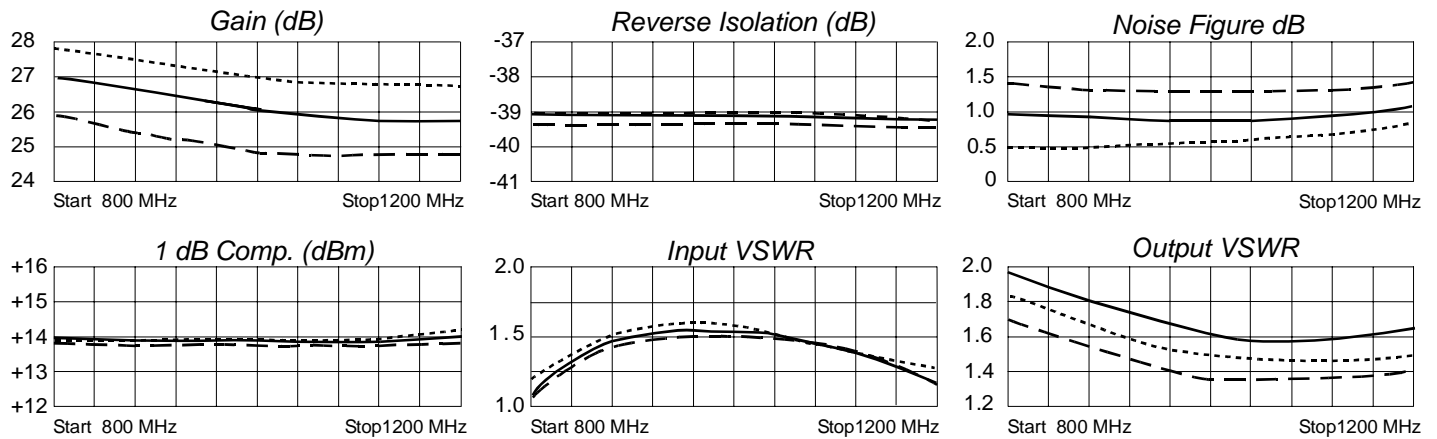
### Typical Intermodulation Performance at 25 °C

Second Order Harmonic Intercept Point.... +46 dBm (Typ.)  
 Second Order Two Tone Intercept Point.... +40 dBm (Typ.)  
 Third Order Two Tone Intercept Point..... +25 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.... 200 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
800	.21	157	21.01	-128	.0100	27	.26	29
900	.30	139	19.59	-160	.0104	11	.20	13
1000	.29	115	18.96	171	.0093	-19	.16	1
1100	.25	82	18.61	143	.0111	-42	.14	-14
1200	.23	30	18.79	113	.0110	-66	.11	-38



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