

# RF AMPLIFIER

## MODEL TR9772

Available as: TR9772, 4 Pin TO-8B (T8)  
 TR9772-9, 12 Pin TO-8B (T9)  
 RN9772, 4 Pin Surface Mount (SM19)  
 BR9772, Connectorized Housing (H2)

### Features

- Low Noise Figure: 1.5 dB Typical
- Unconditionally Stable
- 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 (MHz)	1700 - 2400 MHz	1700 - 2400 MHz
Gain (dB)	23	22 Min.
Power @ 1 dB Comp. (dBm)	+15	+14 Min.
Reverse Isolation (dB)	-35	-33 Max.
VSWR In	1.8:1	2.0:1 Max.
VSWR Out	1.8:1	2.0:1 Max.
Noise Figure (dB)	1.5	2.2 Max.
Power Vdc	+15	+15
Power mA	65	70 Max.

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

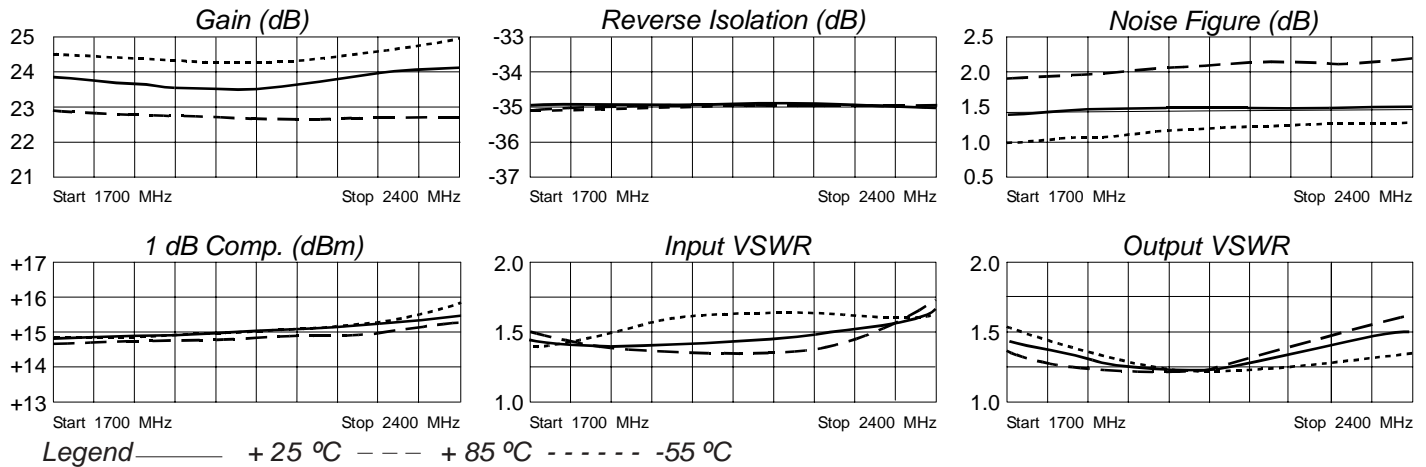
### Typical Intermodulation Performance at 25 ° C

Second Order Harmonic Intercept Point ..... +46 dBm (Typ.)  
 Second Order Two Tone Intercept Point ..... + 40 dBm (Typ.)  
 Third Order Two Tone Intercept Point ..... + 26 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



### Linear S-Parameters

FREQ. MHz	S11		S21		S12		S22	
	Mag	Deg	Mag	Deg	Mag	Deg	Mag	Deg
1700	.20	-85	15.72	126	.0155	8	.24	-20
1800	.20	-81	15.00	112	.0182	-20	.19	-29
1900	.19	-78	15.04	98	.0206	-5	.16	-42
2000	.20	-74	14.80	84	.0160	-20	.13	-51
2100	.19	-69	14.79	69	.0177	-30	.10	-59
2200	.19	-62	15.12	55	.0214	-38	.07	-62
2300	.19	-50	15.50	38	.0203	-38	.06	-63
2400	.24	-38	15.60	20	.0229	-36	.04	-58



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