

RF AMPLIFIER

MODEL TR9757

Available as: TR9757, 4 Pin TO-8B (T8)
 RN9757, 4 Pin Surface Mount (SM19)
 BR9757, Connectorized Housing (H2)

Features

- Low Noise Figure: 1.5 dB Typical
- Low 5 Volt Operation
- 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 | 1700 - 2400 MHz | 1700 - 2400 MHz |
| Gain (dB) | 23 | 22 Min. |
| Power @ 1 dB Comp. (dBm) | +15 | +14 Min. |
| Reverse Isolation (dB) | -33 | -32 Max. |
| VSWR In | 1.5:1 | 2.0:1 Max. |
| Out | 1.5:1 | 2.0:1 Max. |
| Noise Figure (dB) | 1.5 | 2.2 Max. |
| Power Vdc | +5 | +5 |
| mA | 70 | 75 Max. |

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

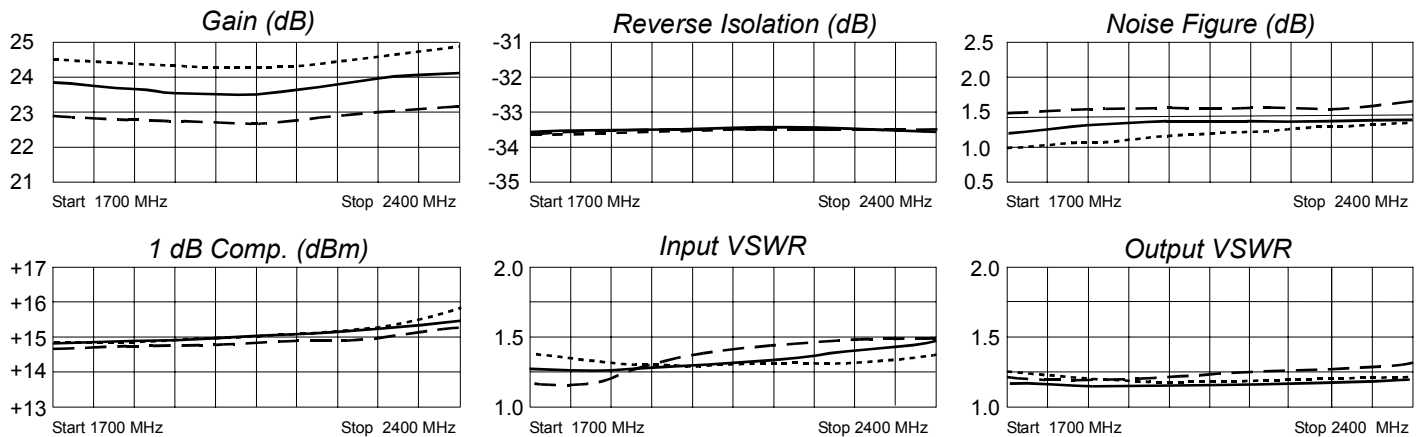
Typical Intermodulation Performance at 25 °C

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.)

Absolute Maximum (No Damage) Ratings

Ambient Operating Temperature -55°C to +100 °C
 Storage Temperature -62°C to +125 °C
 Case Temperature +125 °C
 DC Voltage +8 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 |
| 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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