

RF AMPLIFIER

MODEL *TM7202*

Available as: TM7202, 4 Pin TO-8 (T4)
 TN7202, 4 Pin Surface Mount (SM3)
 FP7202, 4 Pin Flatpack (FP4)
 BX7202, Connectorized Housing (H1)

Features

- High Gain: 27 dB Typical
- Operating Temp. - 55 °C to +85 °C
- Environmental Screening Available

Typical Intermodulation Performance at 25 ° C

Second Order Harmonic Intercept Point..... +43 dBm (Typ.)
 Second Order Two Tone Intercept Point..... +38 dBm (Typ.)
 Third Order Two Tone Intercept Point..... +29 dBm (Typ.)

Specifications

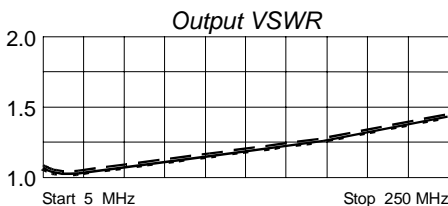
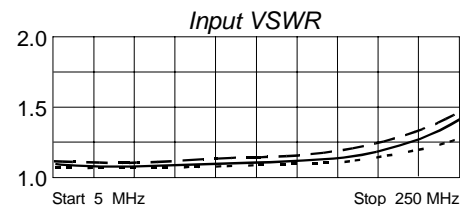
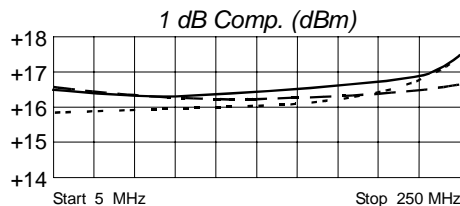
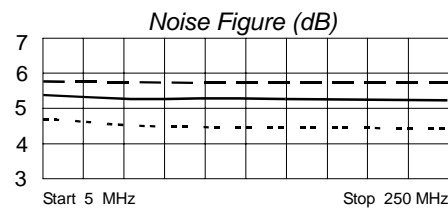
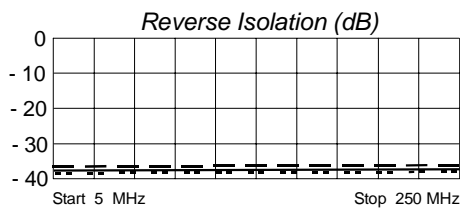
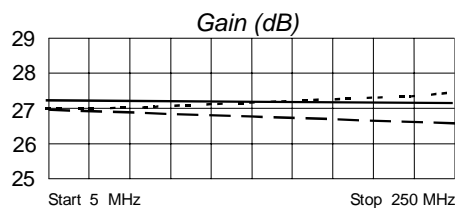
| CHARACTERISTIC | TYPICAL Ta= 25 °C | MIN/MAX Ta = -55 °C to +85 °C |
|-----------------------------|----------------------|----------------------------------|
| Frequency | 5-250 MHz | 5-250 MHz |
| Gain (dB) | 27 | 26.0 Min. |
| Power @ 1 dB Comp. (dBm) | +16.5 | +15.0 Min. |
| Reverse Isolation (dB) | -38 | -36 Max. |
| VSWR In | <1.5:1 | 2.0:1 Max. |
| Out | <1.5:1 | 2.0:1 Max. |
| Noise Figure (dB) | 5.0 | 6.5 Max. |
| Power Vdc | +15 | +15 Min. |
| mA | 88 | 100 Max. |

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 50 Milliwatts (1 Minute Max.)
 Maximum Peak Power 0.5 Watt (3 µsec Max.)

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

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 | .03 | -76 | 22.89 | 2 | .01 | 5 | .03 | -104 |
| 25 | .01 | -72 | 22.87 | - 11 | .01 | 16 | .02 | -116 |
| 50 | .02 | -67 | 22.80 | - 24 | .01 | 7 | .04 | -118 |
| 100 | .03 | -67 | 22.80 | - 49 | .01 | 39 | .07 | -139 |
| 150 | .05 | -52 | 22.82 | - 74 | .01 | 38 | .10 | -155 |
| 200 | .08 | -43 | 22.76 | - 99 | .01 | 41 | .14 | -171 |
| 250 | .15 | -44 | 22.71 | -125 | .01 | 35 | .19 | 176 |



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