

RF AMPLIFIER

MODEL *TM9200*

Available as: TM9200, 4 Pin TO-8 (T4)
 TN9200, 4 Pin Surface Mount (SM3)
 FP9200, 4 Pin Flatpack (FP4)
 BX9200, Connectorized Housing (H1)

Features

- Medium Gain: 12 dB Typical
- Medium Output Power: +16.0 dBm Typical
- Low Voltage Operation: +5 Volts
- Environmental Screening Available

Specifications

| CHARACTERISTIC | TYPICAL Ta= 25 °C | MIN/MAX Ta = -55 °C to +85 °C |
|-----------------------------|----------------------|----------------------------------|
| Frequency | 100 - 4200 MHz | 100 - 4200 MHz |
| Gain (dB) | 12.0 | 11.0 Min. |
| Power @ 1 dB Comp. (dBm) | +16.0 | +15.0 Min. |
| Reverse Isolation (dB) | -18 | -17 Max. |
| VSWR In | 2.7:1 | 2.7:1 Max. |
| Out | 1.8:1 | 1.8:1 Max. |
| Noise figure (dB) | 4.0 | 5.5 Max. |
| Power Vdc | +5 | +5 |
| mA | 75 | 80 Max. |

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

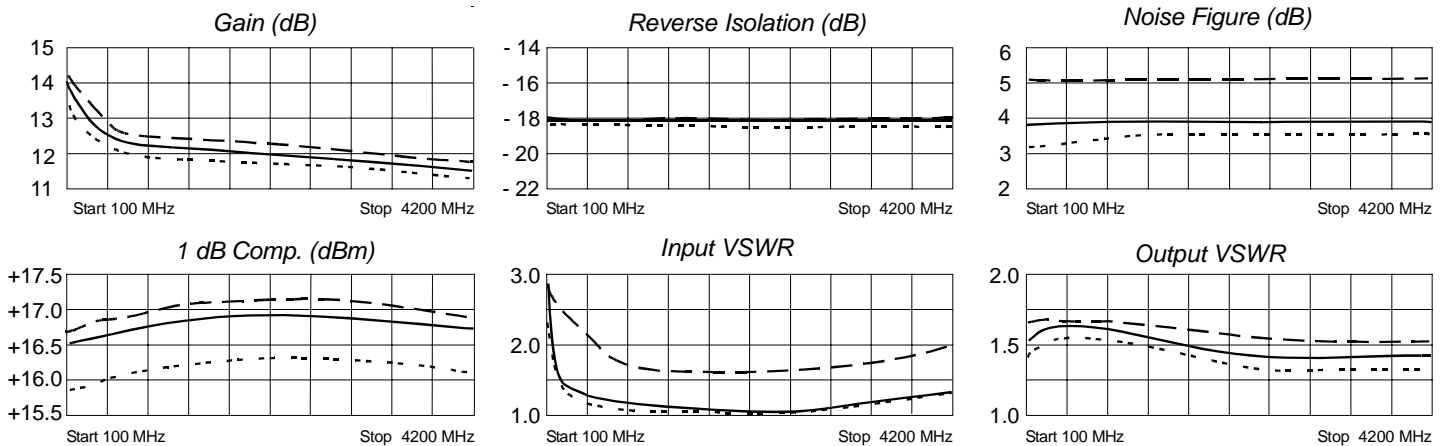
Typical Intermodulation Performance at 25 °C

Second Order Harmonic Intercept Point.....+45 dBm (Typ.)
 Second Order Two Tone Intercept Point.....+41 dBm (Typ.)
 Third Order Two Tone Intercept Point.....+33 dBm (Typ.)

Absolute Maximum Ratings

Ambient Operating Temperature -40°C to + 85 °C
 Storage Temperature -65°C to + 150 °C
 Operating Case Temperature + 100 °C
 DC Voltage + 5.5 Volts
 Continuous RF Input Power.....+10 dBm
 Short Term RF input Power.....20 Milliwatts (1 minute Max.)
 Maximum Peak power 50 Milliwatts (3 μsecMax.)

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 |
| 100 | .45 | -104 | 5.00 | 168 | .13 | 22 | .22 | 156 |
| 510 | .16 | 157 | 4.16 | 124 | .13 | -42 | .28 | 132 |
| 920 | .11 | 100 | 4.13 | 82 | .13 | -83 | .25 | 94 |
| 1330 | .08 | 47 | 4.11 | 38 | .13 | -123 | .22 | 56 |
| 1740 | .05 | -17 | 4.08 | -5 | .13 | -162 | .19 | 17 |
| 2150 | .04 | -106 | 4.05 | -49 | .13 | 159 | .16 | -23 |
| 2560 | .06 | -175 | 4.01 | -92 | .13 | 119 | .14 | -64 |
| 2970 | .08 | 142 | 3.94 | -136 | .13 | 80 | .14 | -108 |
| 3380 | .10 | 106 | 3.88 | -179 | .13 | 40 | .15 | -151 |
| 3790 | .12 | 69 | 3.81 | 137 | .13 | 1 | .15 | 168 |
| 4200 | .13 | 26 | 3.78 | 94 | .13 | -39 | .15 | 128 |



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