

RF AMPLIFIER

MODEL *TM9331*

Available as: TM9331, 4 Pin TO-8 (T4)
 TN9331, 4 Pin Surface Mount (SM3)
 FP9331, 4 Pin Flatpack (FP4)
 BX9331, Connectorized Housing (H1)

Features

- Medium Gain: 11.5 dB Typical
- 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 | 10 - 2000 MHz | 10 - 2000 MHz |
| Gain (dB) | 11.5 | 10.5 Min. |
| Power @ 1 dB Comp. (dBm) | >+2 | 0 Min. |
| Reverse Isolation (dB) | - 15 | - 14 Max. |
| VSWR In | <1.5:1 | 2.0:1 Max. |
| VSWR Out | <1.75:1 | 2.0:1 Max. |
| Noise figure (dB) | <4.0 | 4.5 Max. |
| Power Vdc | +15 | +15 |
| mA | 11 | 12 Max. |

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

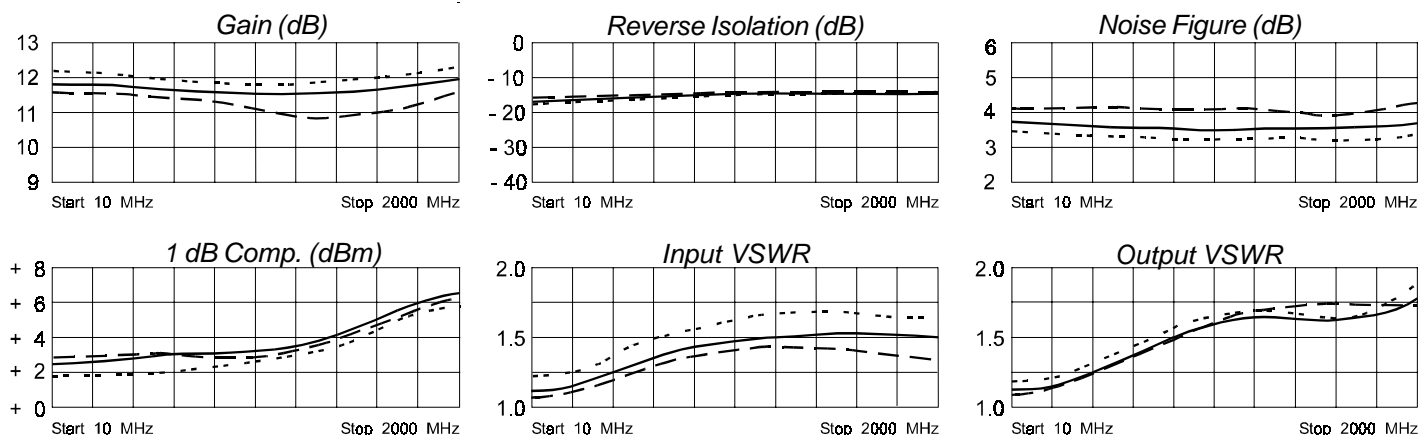
Typical Intermodulation Performance at 25 ° C

Second Order Harmonic Intercept Point +27 (Typ.)
 Second Order Two Tone Intercept Point +21 (Typ.)
 Third Order Two Tone Intercept Point +14 (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 + 6 dBm
 Short Term RF Input Power 50 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 |
| 10 | .07 | -176 | 3.92 | -179 | .15 | 2 | .06 | -176 |
| 100 | .07 | 149 | 3.90 | 172 | .15 | 1 | .06 | 141 |
| 200 | .08 | 127 | 3.89 | 164 | .15 | 2 | .08 | 111 |
| 400 | .11 | 89 | 3.85 | 150 | .15 | 2 | .12 | 71 |
| 600 | .14 | 63 | 3.83 | 135 | .16 | 2 | .16 | 43 |
| 800 | .17 | 42 | 3.79 | 120 | .16 | 1 | .19 | 15 |
| 1000 | .19 | 21 | 2.73 | 106 | .17 | - 3 | .21 | - 9 |
| 1200 | .20 | 1 | 3.72 | 91 | .17 | - 5 | .23 | - 34 |
| 1400 | .21 | - 21 | 3.74 | 76 | .17 | - 9 | .24 | - 59 |
| 1600 | .20 | - 41 | 3.84 | 62 | .18 | - 10 | .25 | - 87 |
| 1800 | .19 | - 68 | 3.99 | 47 | .18 | - 11 | .26 | - 116 |
| 2000 | .19 | - 97 | 4.10 | 31 | .18 | - 12 | .27 | 149 |

Amplifonix

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