

RF AMPLIFIER

MODEL *TM7371*

Available as: TM7371, 4 Pin TO-8 (T4)
 TN7371, 4 Pin Surface Mount (SM3)
 FP7371, 4 Pin Flatpack (FP4)
 BX7371, Connectorized Housing (H1)

Features

- Low Noise Figure: 1.75 dB Typical
- High Gain: 18 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 | 1-300 Hz | 1-300 MHz |
| Gain (dB) | 18 | 16.0 Min. |
| Power @ 1 dB Comp. (dBm) | +2 | +1.0 Min. |
| Reverse Isolation (dB) | -21 | -20 Max. |
| VSWR In | <1.25:1 | 2.0:1 Max. |
| Out | <1.25:1 | 2.0:1 Max. |
| Noise Figure (dB) | 1.75 | 2.5 Max. |
| Power Vdc | +15 | +15 Min. |
| mA | 9 | 12 Max. |

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

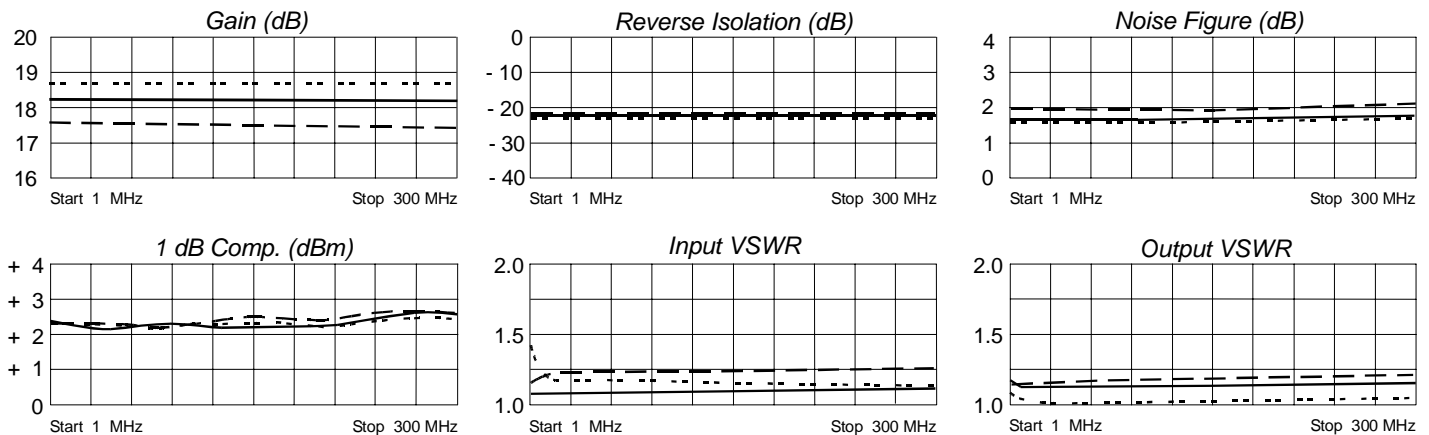
Typical Intermodulation Performance at 25 ° C

Second Order Harmonic Intercept Point..... +20 dBm (Typ.)
 Second Order Two Tone Intercept Point..... +15 dBm (Typ.)
 Third Order Two Tone Intercept Point..... +14 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 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 |
| 1 | .06 | - 92 | 8.31 | -165 | .08 | 18 | .07 | - 88 |
| 5 | .02 | - 14 | 8.35 | -178 | .08 | 4 | .03 | - 17 |
| 50 | .02 | - 6 | 8.32 | 170 | .08 | - 0 | .03 | - 5 |
| 100 | .03 | - 18 | 8.29 | 159 | .08 | - 0 | .03 | - 23 |
| 150 | .03 | - 27 | 8.28 | 149 | .08 | - 4 | .04 | - 37 |
| 200 | .04 | - 38 | 8.26 | 138 | .08 | - 4 | .04 | - 47 |
| 250 | .04 | - 52 | 8.27 | 127 | .08 | - 5 | .05 | - 64 |
| 300 | .05 | - 74 | 8.25 | 117 | .08 | - 7 | .05 | - 76 |



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