

RF AMPLIFIER

MODEL *TM3014*

Available as: TM3014, 4 Pin TO-8 (T4)
 TN3014, 4 Pin Surface Mount (SM3)
 FP3014, 4 Pin Flatpack (FP4)
 BX3014, Connectorized Housing (H1)

Features

- High Gain: 25 dB Typical
- High Output Power: +24 dBm Typical
- Operating Temp. -55 °C to + 85 °C
- Environmental Screening Available

Typical Intermodulation Performance at 25 ° C

Second Order Harmonic Intercept Point.... +60 dBm (Typ.)
 Second Order Two Tone Intercept Point.... +54 dBm (Typ.)
 Third Order Two Tone Intercept Point..... +36 dBm (Typ.)

Specifications

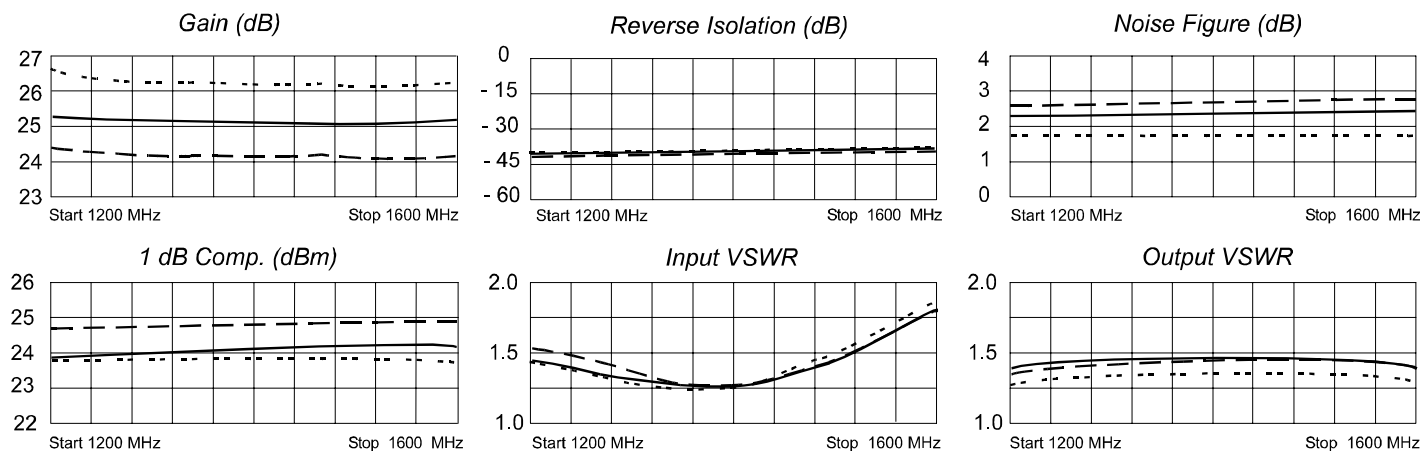
| CHARACTERISTIC | TYPICAL Ta= 25 °C | MIN/MAX Ta = -55 °C to +85 °C |
|-----------------------------|----------------------|----------------------------------|
| Frequency | 1200 - 1600 MHz | 1200 - 1600 MHz |
| Gain (dB) | 25 | 24 Min. |
| Power @ 1 dB Comp. (dBm) | +24 | +23 Min. |
| Reverse Isolation (dB) | -38 | -36 Max. |
| VSWR In | <1.75:1 | 2.0:1 Max. |
| VSWR Out | <1.5:1 | 2.0:1 Max. |
| Noise Figure (dB) | <2.5 | 3.0 Max. |
| Power Vdc | +15 | +15 |
| mA | 145 | 155 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 +6 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 |
| 1200 | 0.21 | -26 | 20.04 | 108 | 0.01 | -142 | 0.04 | -178 |
| 1240 | 0.20 | -32 | 20.00 | 98 | 0.01 | -146 | 0.03 | -169 |
| 1280 | 0.20 | -37 | 19.91 | 88 | 0.01 | -154 | 0.02 | -134 |
| 1320 | 0.20 | -43 | 19.75 | 78 | 0.01 | -159 | 0.02 | -99 |
| 1360 | 0.19 | -48 | 19.57 | 69 | 0.01 | -165 | 0.04 | -90 |
| 1400 | 0.19 | -53 | 19.36 | 59 | 0.01 | -172 | 0.06 | -89 |
| 1440 | 0.18 | -58 | 19.16 | 49 | 0.01 | -178 | 0.08 | -91 |
| 1480 | 0.18 | -61 | 18.99 | 40 | 0.01 | -174 | 0.10 | -96 |
| 1520 | 0.17 | -63 | 18.75 | 30 | 0.01 | -166 | 0.12 | -101 |
| 1560 | 0.18 | -65 | 18.51 | 21 | 0.01 | -161 | 0.13 | -107 |
| 1600 | 0.18 | -66 | 18.22 | 11 | 0.01 | -151 | 0.16 | -114 |

