

RF Amplifier

High Gain: +21 dB

Model TM6575

5 to 500 MHz

Features

- High Gain: +21 dB Typical
- Low Noise: 2.7 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 | 5 - 500 MHz | 5 - 500 MHz |
| Gain (dB) | 21 | 19 Min. |
| Power @ 1 dB Comp. (dBm) | +9.5 | +8.5 Min. |
| Reverse Isolation (dB) | -23 | -21 Max. |
| VSWR In | <1.5:1 | 2.0:1 Max. |
| VSWR Out | <1.25:1 | 2.0:1 Max. |
| Noise figure (dB) | 2.7 | 3.5 Max. |
| Power Vdc | +15 | +15 |
| mA | 23 | 27 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 +33 dBm (Typ.)
 Second Order Two Tone Intercept Point +28 dBm (Typ.)
 Third Order Two Tone Intercept Point +21 dBm (Typ.)

Maximum Ratings

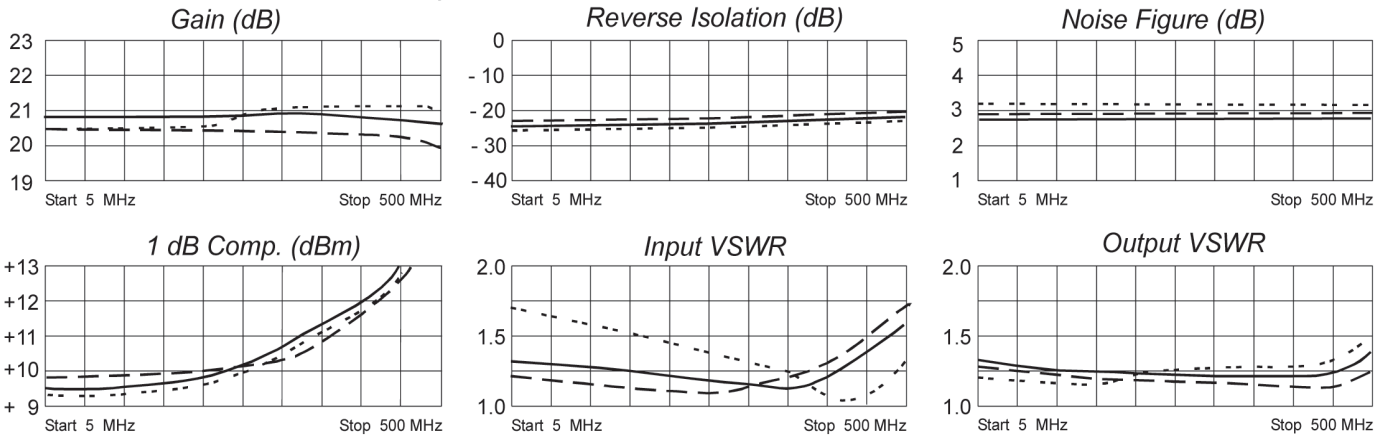
Ambient Operating Temperature -55°C to + 100 °C
 Storage Temperature -62°C to + 125 °C
 Case Temperature + 125 °C
 DC Voltage + 18 Volts
 Continuous RF Input Power + 13 dBm
 Short Term RF Input Power.....50 Milliwatts (1 Minute Max.)
 Maximum Peak Power 0.5 Watt (3 µsec Max.)

Packaging Options (see Appendix)

TM6575, 4 Pin TO-8 (T4)
 TN6575, 4 Pin Surface Mount (SM3)
 FP6575, 4 Pin Flatpack (FP4)
 BX6575, Connectorized Housing (H1)

Amplifiers

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 | .16 | -174 | 10.41 | -177 | .05 | 5 | .14 | -174 |
| 50 | .15 | 163 | 10.37 | 168 | .05 | 1 | .13 | 167 |
| 100 | .14 | 145 | 10.35 | 155 | .05 | 1 | .12 | 152 |
| 200 | .11 | 108 | 10.36 | 129 | .06 | 1 | .11 | 122 |
| 300 | .06 | 46 | 10.43 | 103 | .06 | 0 | .09 | 95 |
| 400 | .09 | -69 | 10.57 | 73 | .07 | -3 | .11 | 74 |
| 500 | .23 | -129 | 10.17 | 38 | .08 | -9 | .18 | 41 |

