

RF AMPLIFIER

MODEL *TM6574*

Available as: TM6574, 4 Pin TO-8 (T4)
 TN6574, 4 Pin Surface Mount (SM3)
 FP6574, 4 Pin Flatpack (FP4)
 BX6574, Connectorized Housing (H1)

Features

- High Gain: 30 dB Typ.
- Medium Output Power: +9 dBm Typ.
- 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) | 30 | 27 Min. |
| Power @ 1 dB Comp. (dBm) | +9 | +7 Min. |
| Reverse Isolation (dB) | - 36 | - 33 Max. |
| VSWR In | 1.35:1 | 2.0:1 Max. |
| Out | 1.65:1 | 2.0:1 Max. |
| Noise figure (dB) | 3.5 | 6.0 Max. |
| Power Vdc | +15 | +15 |
| mA | 37 | 40 Max. |

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

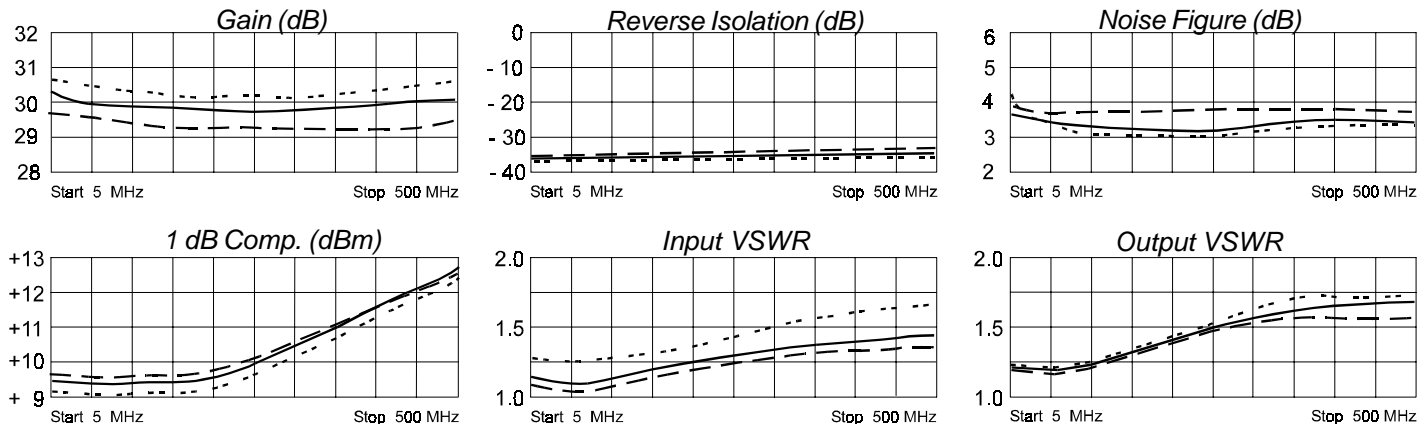
Typical Intermodulation Performance at 25 ° C

Second Order Harmonic Intercept Point +41 (Typ.)
 Second Order Two Tone Intercept Point +36 (Typ.)
 Third Order Two Tone Intercept Point +22 (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 |
| 5 | .06 | -148 | 32.67 | 3 | .01 | 7 | .07 | -162 |
| 50 | .06 | 163 | 31.75 | - 21 | .01 | 2 | .08 | -165 |
| 100 | .07 | 147 | 31.43 | - 41 | .01 | 6 | .11 | -162 |
| 200 | .11 | 112 | 31.15 | - 82 | .01 | 14 | .17 | -178 |
| 300 | .15 | 85 | 31.19 | -123 | .01 | 13 | .23 | 163 |
| 400 | .19 | 61 | 31.59 | -166 | .02 | - 3 | .26 | 140 |
| 500 | .21 | 39 | 32.23 | 149 | .02 | -11 | .26 | 123 |

Amplifonix

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