

RF AMPLIFIER

MODEL *TM6518*

Available as: TM6518, 4 Pin TO-8 (T4)
 TN6518, 4 Pin Surface Mount (SM3)
 FP6518, 4 Pin Flatpack (FP4)
 BX6518, Connectorized Housing (H1)

Features

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

Typical Intermodulation Performance at 25 °C

Second Order Harmonic Intercept Point +46 dBm (Typ.)
 Second Order Two Tone Intercept Point +40 dBm (Typ.)
 Third Order Two Tone Intercept Point +33 dBm (Typ.)

Specifications

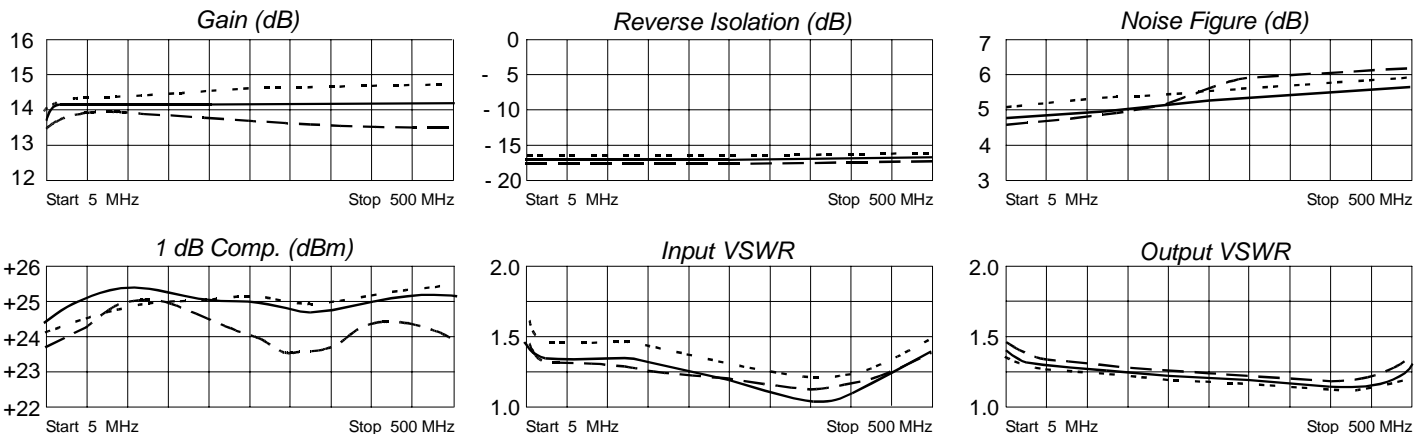
| CHARACTERISTIC | | TYPICAL Ta= 25 °C | MIN/MAX Ta = -55 °C to +85 °C |
|-----------------------------|-----|----------------------|----------------------------------|
| Frequency | | 5 - 500 MHz | 5 - 500 MHz |
| Gain (dB) | | 14 | 12.5 Min. |
| Power @ 1 dB Comp. (dBm) | | +25 | +22.5 Min. |
| Reverse Isolation (dB) | | -16.5 | -15.5 Max. |
| VSWR | In | <1.5:1 | 2.0:1 Max. |
| | Out | <1.3:1 | 2.0:1 Max. |
| Noise figure (dB) | | 5.25 | 6.5 Max. |
| Power | Vdc | +15 | +15 |
| | mA | 125 | 135 Max. |

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

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 + 18 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 | .17 | -135 | 4.89 | -169 | .11 | 14 | .24 | 159 |
| 50 | .14 | 165 | 5.04 | 169 | .12 | 0 | .18 | 166 |
| 100 | .14 | 140 | 5.02 | 156 | .12 | -1 | .17 | 160 |
| 200 | .14 | 101 | 5.03 | 132 | .12 | -7 | .15 | 144 |
| 300 | .15 | 60 | 5.06 | 107 | .13 | -12 | .14 | 136 |
| 400 | .16 | 27 | 5.08 | 80 | .14 | -19 | .13 | 140 |
| 500 | .18 | 3 | 5.11 | 52 | .15 | -28 | .19 | 143 |



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