# RF AMPLIFIER
# MODEL *CZ8050*

**Available as:** CZ8050, 4 Pin TO-12 (T7)

## Features

- High Gain: 22.5 dB Typical
- Medium Output Power: +10 dBm Typical
- Operating Temp. 0 ºC to +70 ºC
- Environmental Screening Available

## Typical Intermodulation Performance at 25 º C

Second Order Harmonic Intercept Point ..... +42 dBm (Typ.)
Second Order Two Tone Intercept Point ..... +36 dBm (Typ.)
Third Order Two Tone Intercept Point ..... +23 dBm (Typ.)

## Specifications

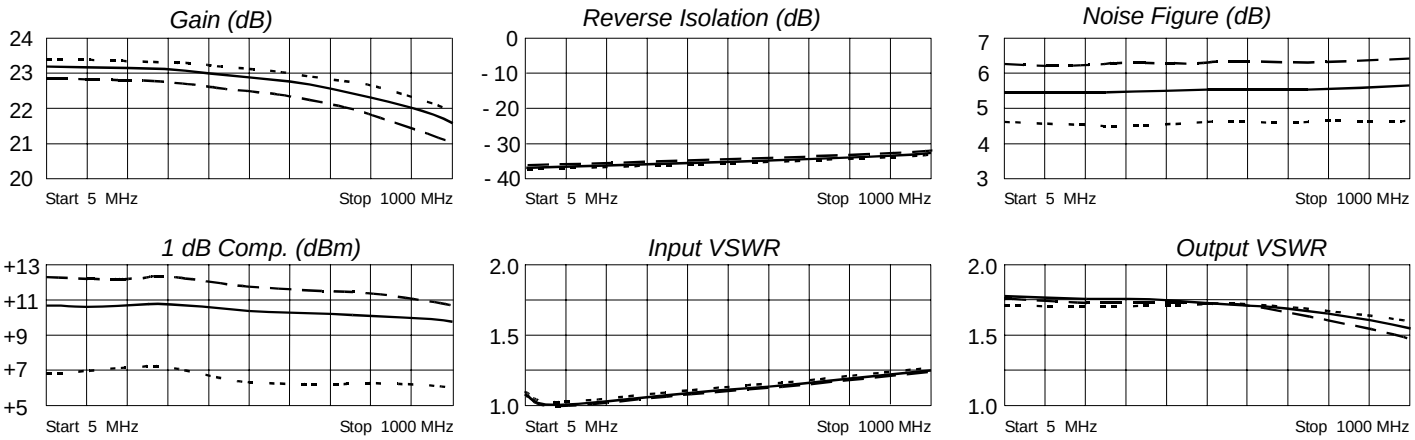
| CHARACTERISTIC | TYPICAL Ta= 25 ºC | MIN/MAX Ta = 0 ºC to +70 ºC |
|---|---|---|
| Frequency | 5 - 1000 MHz | 5 - 1000 MHz |
| Gain (dB) | 22.5 | 20.5 Min. |
| Power @ 1 dB Comp. (dBm) | +10 | +6.0 Min. |
| Reverse Isolation (dB) | -31.5 | -30 Max. |
| VSWR In<br>Out | <1.5:1<br><1.75:1 | 2.0:1 Max.<br>2.0:1 Max. |
| Noise figure (dB) | <6.0 | 7.0 Max. |
| Power Vdc<br>mA | +15<br>67 | +15<br>75 Max. |

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

## Maximum Ratings

Ambient Operating Temperature ..... -55ºC to + 100 ºC
Storage Temperature ..... -62ºC to + 125 ºC
Case Temperature ..... + 125 ºC
Continuous RF Input Power ..... + 13 dBm
Short Term RF Input Power.....50 Milliwatts (1 MinuteMax.)
Maximum Peak Power .....0.5 Watt ( 3 µsec Max.)

## Typical Performance Data




*Legend* ——— *+25 ºC* – – – *+70 ºC* - - - - - - *0 ºC*

Linear S-Parameters

| FR MHz | S11 Mag | S11 Deg | S21 Mag | S21 Deg | S12 Mag | S12 Deg | S22 Mag | S22 Deg |
|---|---|---|---|---|---|---|---|---|
| 10 | .01 | - 88 | 14.34 | 1 | .02 | 5 | .28 | -176 |
| 50 | .01 | -106 | 14.37 | - 6 | .01 | 8 | .28 | 176 |
| 100 | .01 | - 89 | 14.44 | - 12 | .01 | - 1 | .28 | 170 |
| 250 | .02 | -114 | 14.28 | - 31 | .02 | 12 | .27 | 155 |
| 500 | .04 | -170 | 13.90 | - 62 | .02 | 20 | .27 | 128 |
| 750 | .08 | 149 | 13.13 | - 93 | .02 | 20 | .25 | 100 |
| 1000 | .11 | 115 | 11.93 | -124 | .02 | 24 | .21 | 71 |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