

1930-1990 MHz 1 W CDMA Power Amplifier

General Description

The NA00410 is a 1 W CDMA power amplifier. It is a single biased (+12 V) power amplifier that operates between 1930 MHz and 1990 MHz. The amplifier incorporates internal forward power detection circuit.

Performance at -20 to 60 °C, Vcc = +12 V

| Parameter | Min. | Typ. | Max. | Units |
|---|------------|-------|---------|-------|
| Frequency | 1930 | | 1990 | MHz |
| CDMA Average Output Power | | 1 | | W |
| Gain | 29 | 30 | 31 | dB |
| Gain Flatness | | | ± 0.5 | dB |
| Gain Variation Over Temperature | | | ± 1.0 | dB |
| Spurious Emission ¹ | ± 2.5 MHz | | -22 | dBm |
| | ± 3.5 MHz | | -26 | dBm |
| | ± 5.0 MHz | | -45 | dBm |
| | ± 10.0 MHz | | -50 | dBm |
| Output IP3 Pout @ 27dBm/tone Output Power | | 51 | | dBm |
| 1 dB Compression Point | | 31 | | dBm |
| Input VSWR | | 1.3:1 | 1.4 : 1 | |
| Output VSWR | | 1.3:1 | 1.5 : 1 | |
| DC supply voltage (Vcc) | | +12 | | V |
| Current | | | 3 | A |
| Operating Temperature (Ambient) | -20 | | 60 | °C |

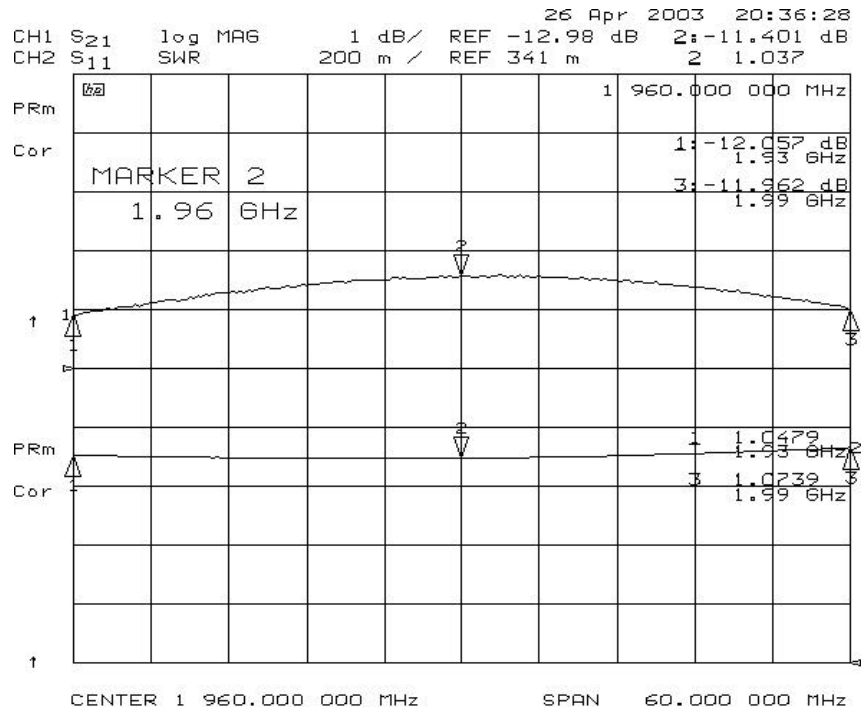
¹ Input Signal to measure: WCDMA-3GPP 3.4.12-00 Chip Rate: 3.84 Mcps, 64 DPCH, Average Power 1W, Resolution bandwidth of equipment is 30 kHz.

Customized Designs: For custom designs, including both electrical and mechanical, please contact us at sales@nextec-rf.com.

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Typical Test Data

Gain and Input Return Loss (Output Attenuation: 41.7 dB)

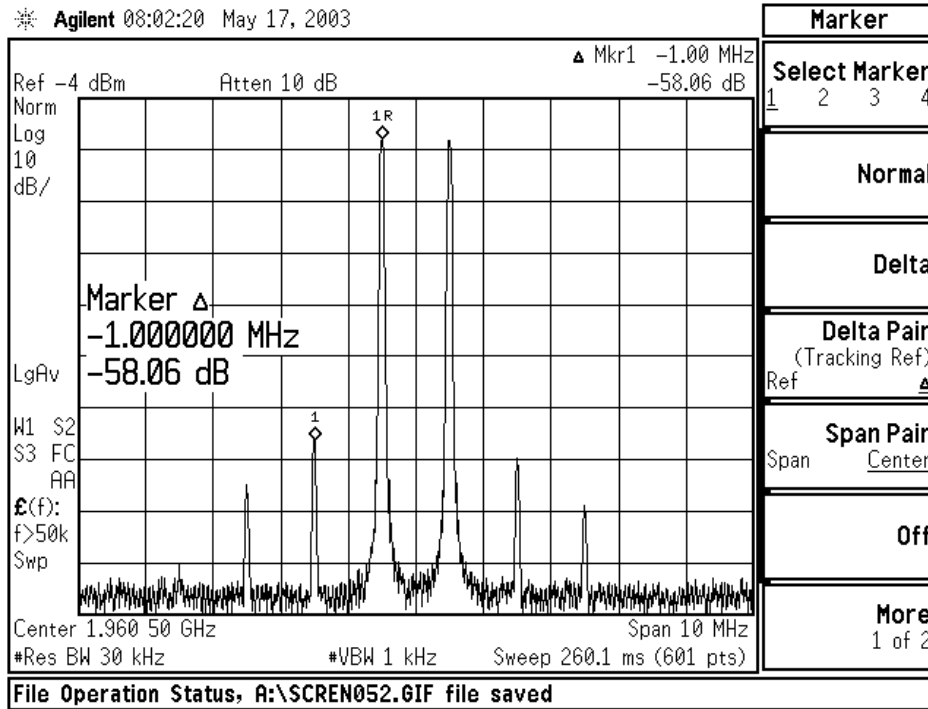


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 May 23, 2003

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Intermodulation Distortion at 27 dBm/tone output

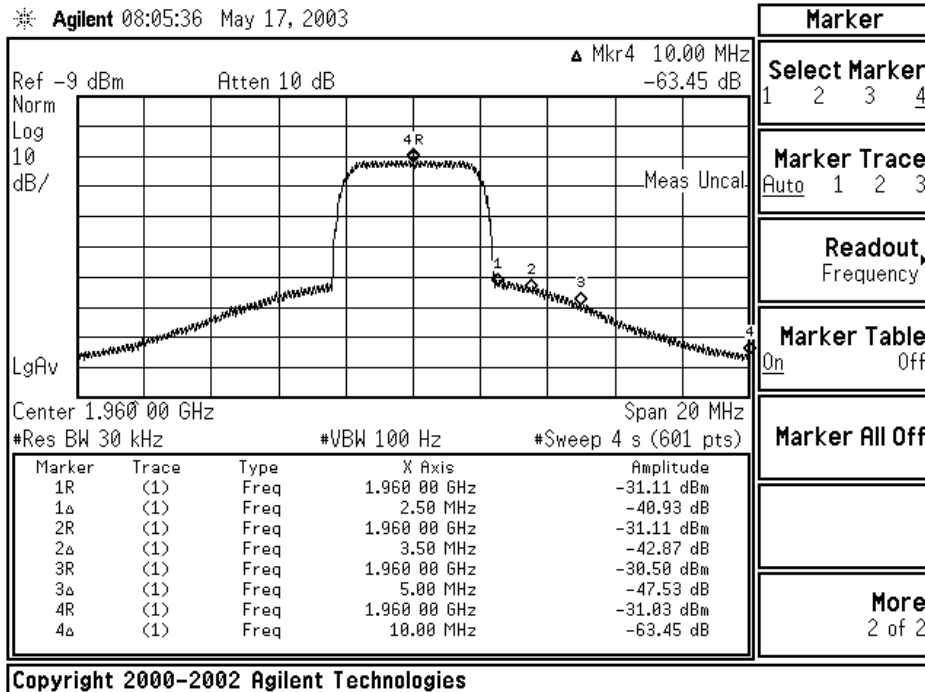


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Spurious Emission¹

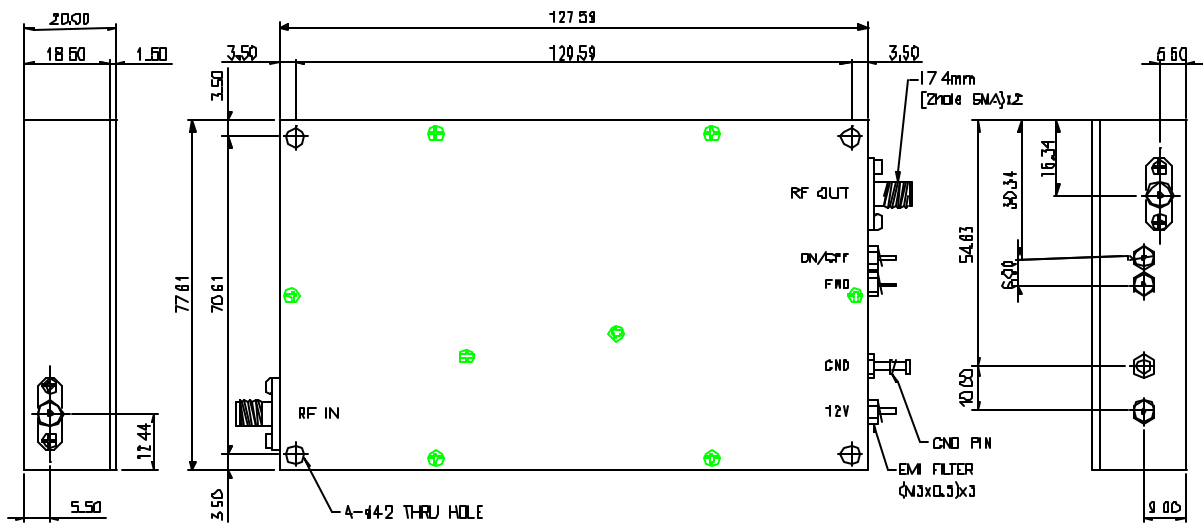


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Outline Drawing



(unit:mm)

Connector Description

| | |
|--------|---|
| RFin | RF input signal (SMA-F) |
| RFout | RF output signal (SMA-F) |
| 12V | DC Supply Voltage (+12 V) |
| FWD | Forward power detector output. 4V at 30 dBm CDMA Average Output Power Power Detection Range: 11 dBm to 30 dBm |
| ON/OFF | On (LOW)/Off (HIGH) control input |
| GND | Ground |

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