



Wright Technologies Inc.

Broadband Frequency Operation

TECHNICAL DATA SHEET

RoHS COMPLIANT

ATP40-B3028

0002

FEATURES

- * 18-40 Ghz Frequency Operation
- * P-1dB: +28 dBm typical
- * Small Signal Gain: 30-45 dB minimum
- * Gain Flatness: +/- 3.0 dB full band
- * High Output IP3: 37 dBm typ.
- * Noise Figure: 8.0 dB typ.
- * 50 Ohm Input and Output Matched
- * +25 °C Operating Temperature
- * Unconditionally Stable
- * Single DC Bias Supply
- * Built-in DC Voltage regulation
- * Small Size and Weight, Yet Robust

APPLICATIONS

Laboratory Applications
R&D Lab Use
Radar Systems
Electronic Warfare
Telecom Infrastructure

Test Instrumentation
Military and Space
Communications Systems
Satellite Communications
Wireless Communications

Microwave Radio Systems
Power Amplifier
General Purpose Amplifier
RF Front Ends
Fiber Optic Interface

HEAT SINK MUST BE USED WHILE AMPLIFIER IS BIASED

| Freq. In GHz | Gain dB | P-1 dBm | Input VSWR | Output VSWR | Noise dB |
|-----------------|------------|------------|---------------|----------------|-------------|
| 18.0 | 38.0 | 27.2 | 1.67 | 1.62 | 7.2 |
| 23.5 | 41.6 | 27.5 | 1.81 | 1.30 | 6.4 |
| 29.0 | 38.4 | 28.2 | 1.66 | 1.19 | 5.9 |
| 34.5 | 37.1 | 30.1 | 1.42 | 1.20 | 5.8 |
| 40.0 | 39.1 | 27.6 | 1.40 | 1.17 | 6.1 |
| | | | | | |
| | | | | | |
| Min. | 36.6 | 27.2 | --- | --- | --- |
| Max. | 42.2 | --- | 2.48 | 1.98 | 7.2 |
| Spec. | 30-45 | 28 Typ. | 2.50 Max | 2.50 Max | 8 Typ. |

Bias @ +15.0 V, IT = $\frac{2280}{2750}$ mA
FULL BIAS MUST BE APPLIED AT TURN ON $\frac{2280}{2750}$ mA TYP

All Measurements Taken at 25°C Ambient Room

Wright Technologies Inc.
1352 Blue Oaks Blvd Suite 140
Roseville, CA 95678

Contact Us

Phone: (916) 773-4424
 Fax: (916) 760-2770
 E-mail: sales@wrighttec.com



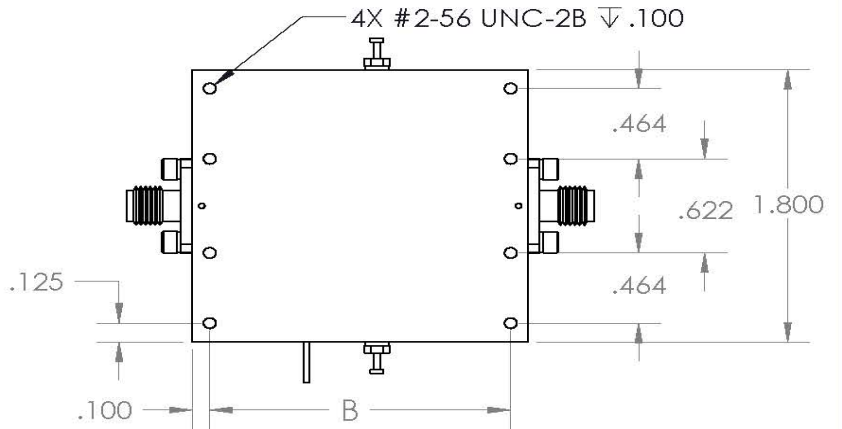
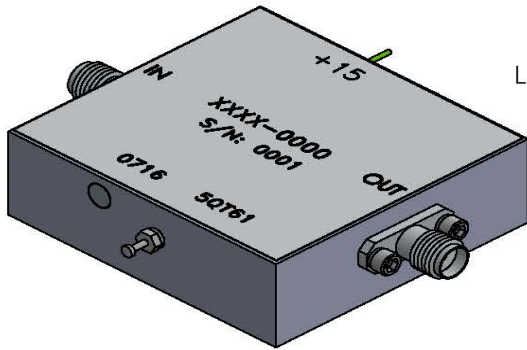
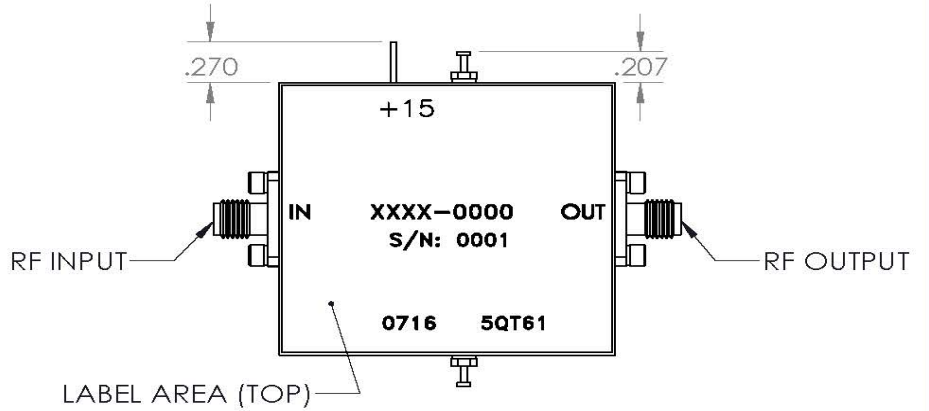
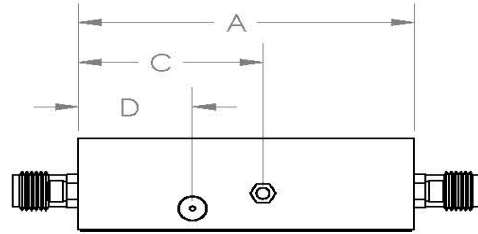
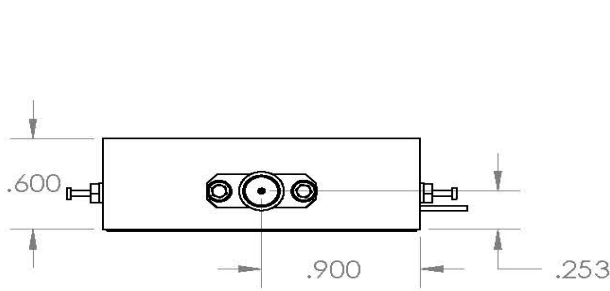
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4 PKDR TYPE CASE

WT PROPRIETARY RELEASE SUBJECT TO CHANGE



COAX CONNECTOR OPTIONS:
SMA, 2.9mm, 2.4mm

WAVEGUIDE OPTION AVAILABLE
UPON CUSTOMER REQUEST

- APPLICATION NOTES:**
UNLESS OTHERWISE SPECIFIED
- 1) ALL DIMENSION TOLERANCES ±.010 AFTER PLATING
 - 2) RF MALE CONNECTORS ARE AVAILABLE UPON REQUEST
 - 3) INTERPRET DRAWING PER ASME Y14.5M-1994

| TYPE | A | B | C | D |
|------|-------|-------|-------|------|
| 3 | 1.710 | 1.510 | .805 | .350 |
| 4 | 1.910 | 1.710 | 1.050 | .650 |
| 6 | 2.110 | 1.910 | 1.250 | .750 |

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TITLE

PKD-R14 SERIES



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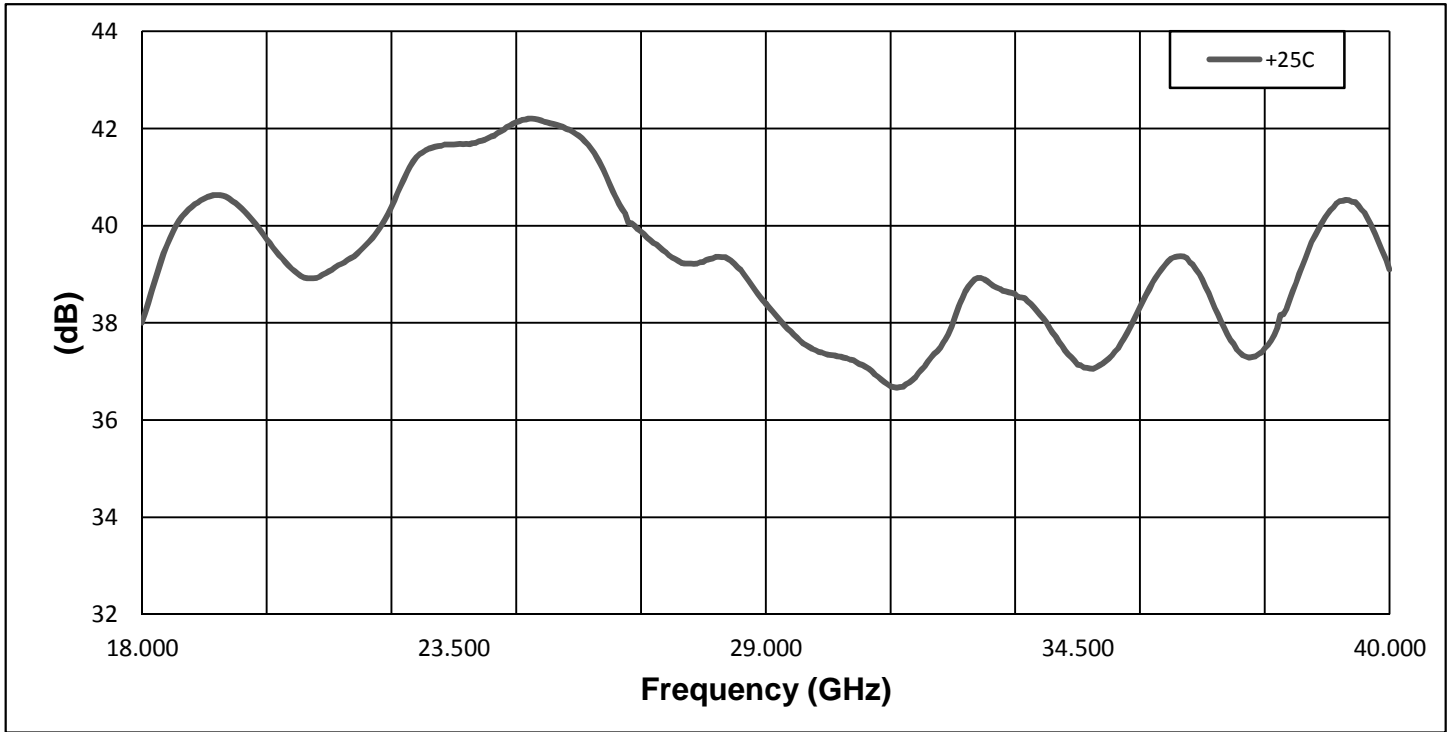
DATA PLOTS

RoHS COMPLIANT

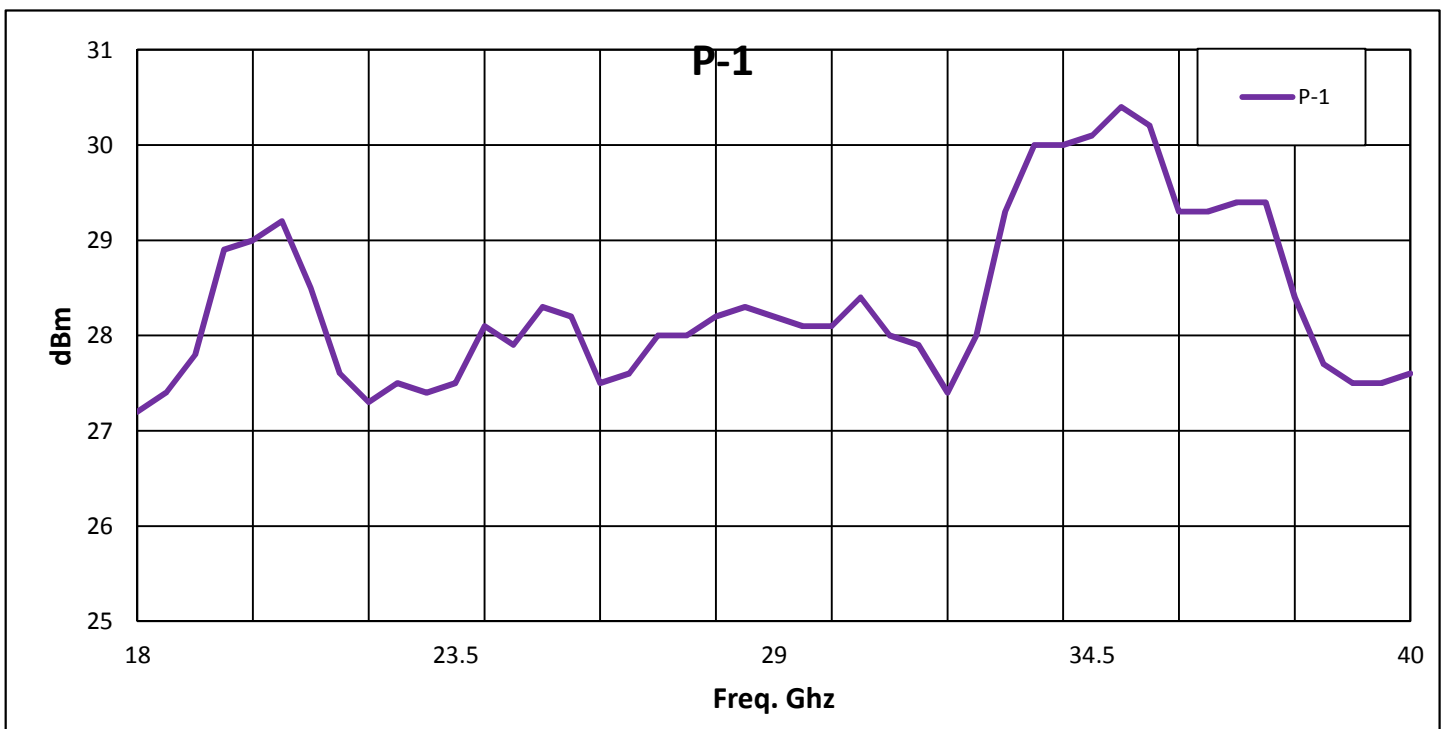
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Gain



Power dBm





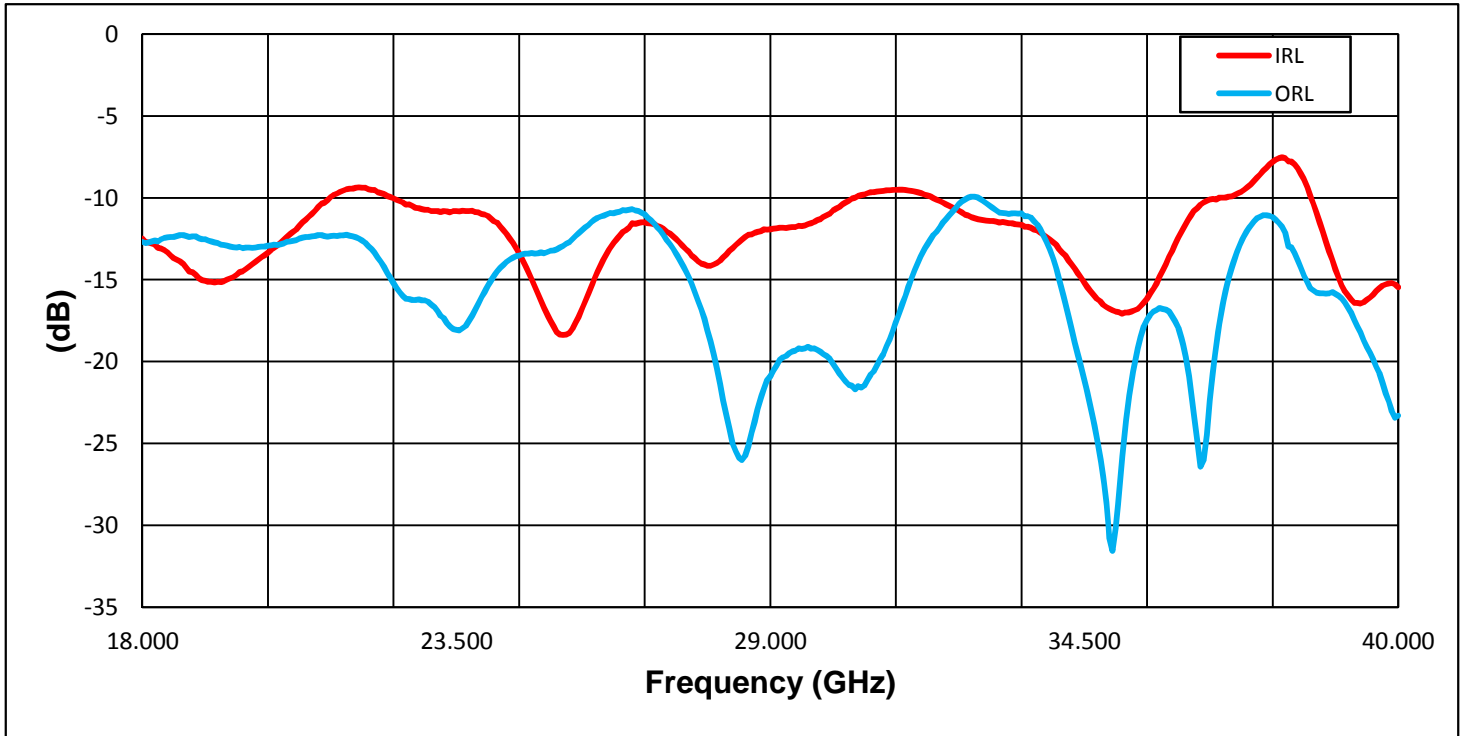
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DATA PLOTS

RoHS COMPLIANT
Return Loss

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Noise (18-40 GHz)

