



# Wright Technologies Inc.

Broadband Frequency Operation

## TECHNICAL DATA SHEET

RoHS COMPLIANT

SS-P40B-3531

0002

### FEATURES

- \* 20-40 Ghz Frequency Operation
- \* PSAT: +31 dBm minimum
- \* Small Signal Gain: 35 dB minimum
- \* Gain Flatness: +/- 4.5 dB full band
- \* High Output IP3: 40 dBm typ.
- \* Noise Figure: 8.0 dB typical
- \* 50 Ohm Input and Output Matched
- \* -20 to +55 °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	Psat dBm	Input VSWR	Output VSWR	Noise dB
20.0	42.0	31.3	1.34	1.13	11.8
25.0	45.4	32.2	1.30	1.79	8.3
30.0	37.9	32.4	2.05	1.36	7.3
35.0	38.6	32.2	1.83	1.43	7.4
40.0	39.9	31.0	1.40	1.25	8.1
Min.	37.9	31.0	---	---	---
Max.	46.3	---	2.47	2.13	11.8
Spec.	35 min	31 min	2.50 max	2.50 max	8.0 TYP

Bias @ +12.0 V, IT =  $\frac{4140}{4500}$  mA

**FULL BIAS MUST BE APPLIED AT TURN ON**  $\frac{4500}{4500}$  mA TYP

All Measurements Taken at 25°C Ambient Room

Wright Technologies Inc.  
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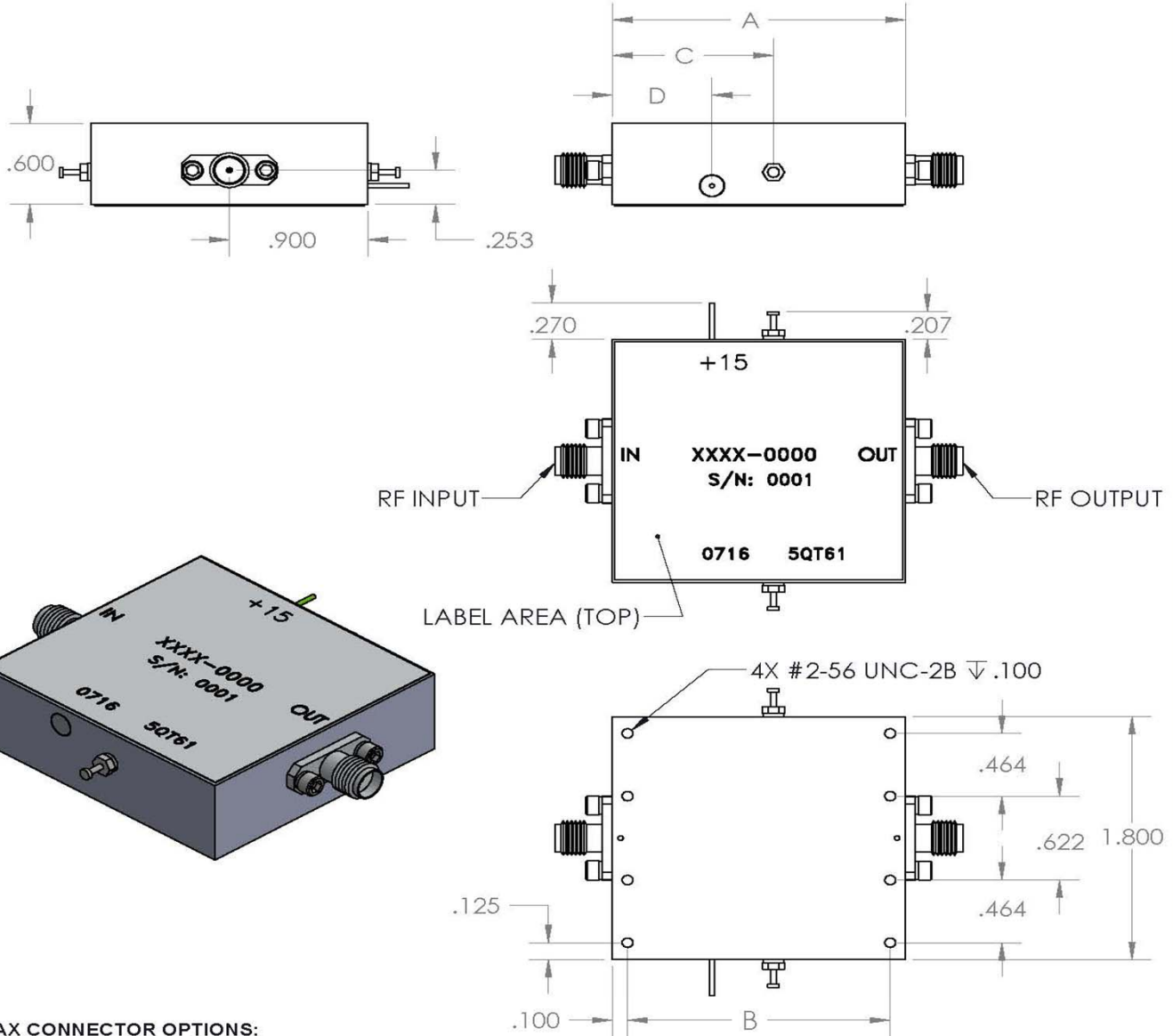
### Contact Us

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E-mail: [sales@wrighttec.com](mailto:sales@wrighttec.com)

### SS-P40B-3531

### 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

Wright Technologies Inc.

TITLE

PKD-R14 SERIES

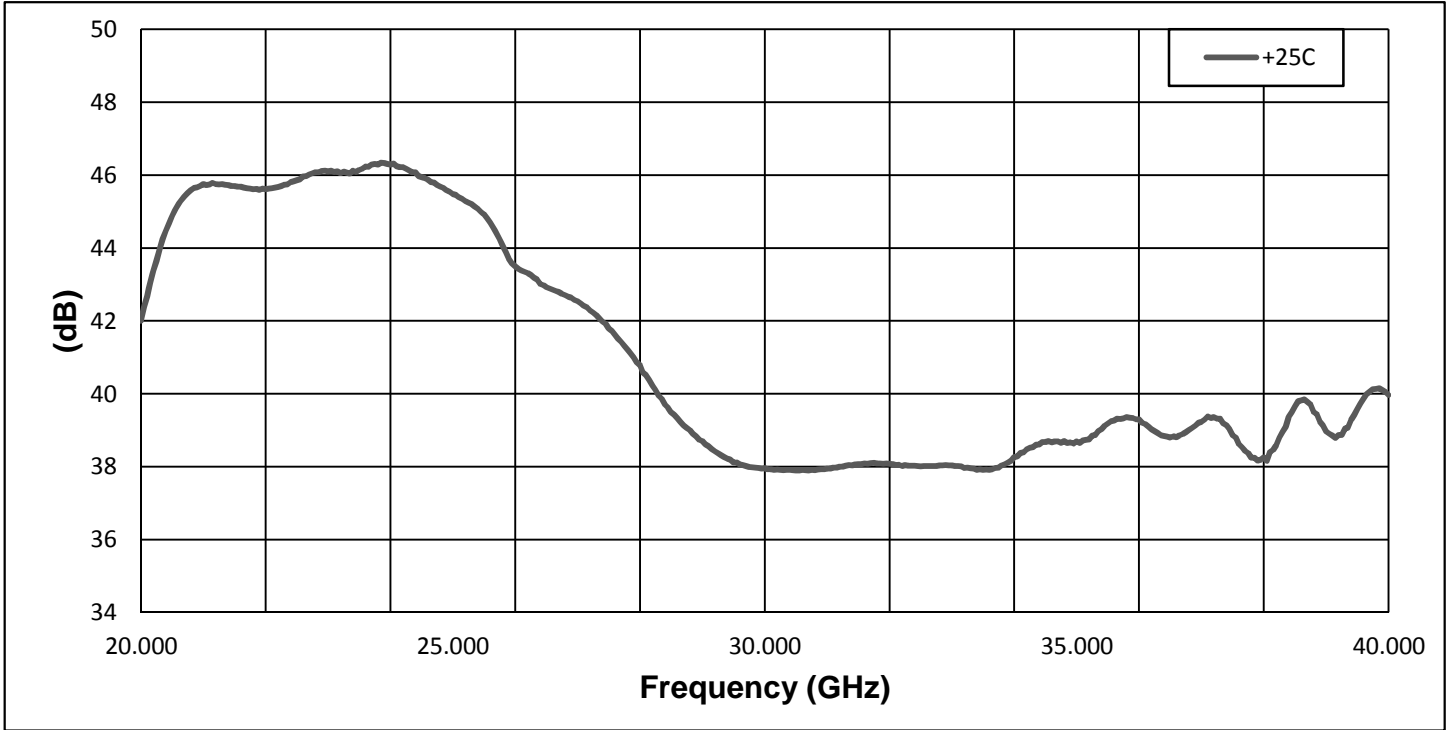


**DATA PLOTS**

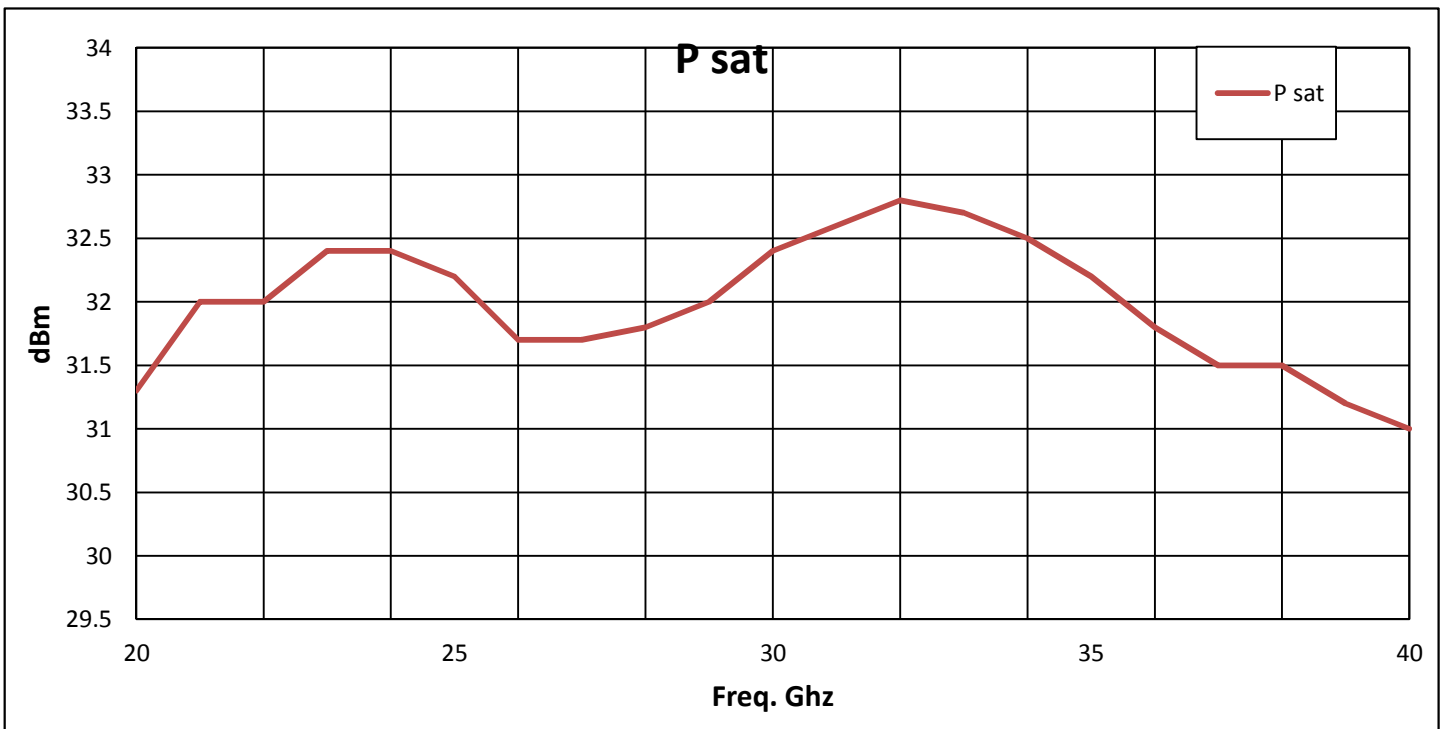
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Gain



Power dBm





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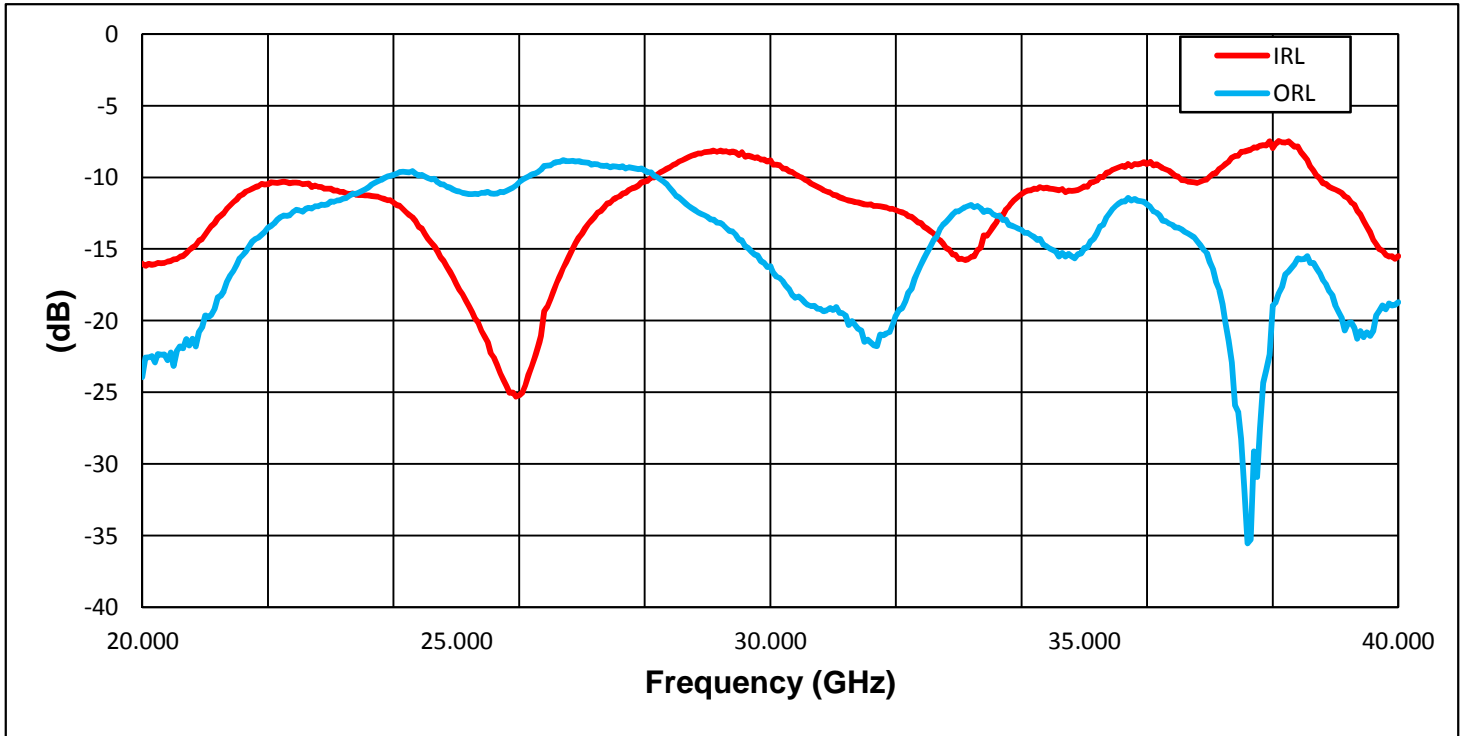
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DATA PLOTS

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### Return Loss



### Noise (20-40 GHz)

