

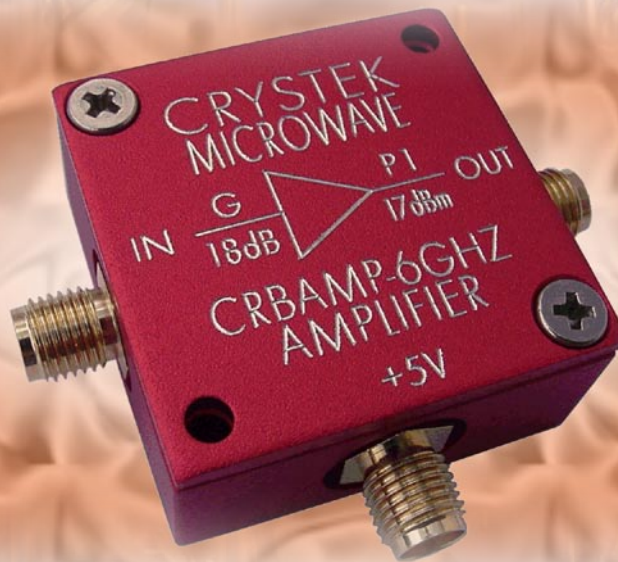


# RedBox

## AMPLIFIER

100MHZ TO 6.0GHZ

MODEL: CRBAMP-100-6000



Crystek continues to enhance its product portfolio with the release of the **RedBox** Amplifier. Crystek's model CRBAMP-100-6000 is a low-noise general purpose connectorized amplifier covering a frequency range of 100MHz to 6GHz. The amplifier is housed in a custom aluminum enclosure (1.25" x 1.25" x 0.59") with 3 SMA connectors for both input and output as well as the power supply input. The unit operates from a single +5V supply consuming only 60mA.

This broadband, low-noise amplifier has a small signal gain of 18dB with an output power of 17dBm (P1dB). It features a typical noise figure of 3.5dB with an IP3 of +30dBm.

Applications include IF or RF buffer amplifiers, base stations, high reliability applications and general lab use for in-house testing.



12730 COMMONWEALTH DRIVE • FORT MYERS, FL 33913

PHONE: 239-561-3311 • 800-237-3061

FAX: 239-561-1025 • WWW.CRYSTEK.COM

Rev: A  
Date: 05-19-08



**CRYSTEK**  
**MICROWAVE**  
 A DIVISION OF CRYSTEK CORPORATION

**RedBox**

**AMPLIFIER**  
 100MHZ TO 6.0GHZ

MODEL: CRBAMP-100-6000

**Electrical Characteristics**  
 TA=25 ° C, V<sub>CC</sub>=+5V, Z<sub>0</sub>=50 Ohms

| Parameter         | Min. | Typ. | Max   | Units |
|-------------------|------|------|-------|-------|
| Frequency Range   | 100  |      | 6000  | MHz   |
| Gain              |      | 18   |       | dB    |
| Output Power P1dB |      | 17   |       | dBm   |
| Output IP3        |      | 30   |       | dBm   |
| Noise Figure      |      | 3.5  |       | dB    |
| Supply Voltage    | 4.75 | 5.0  | 5.25  | VDc   |
| Operating Current |      | 60   |       | mA    |
| Reverse Isolation |      | 22   |       | dB    |
| Input VSWR        |      |      | 1.9:1 |       |
| Output VSWR       |      |      | 2.1:1 |       |

**Absolute Maximum Rating**

| Parameter           | Rating     | Units |
|---------------------|------------|-------|
| Input Power         | +13        | dBm   |
| Power Supply        | +5.5       | VDc   |
| Ambient Temperature | -40 to +85 | °C    |
| Storage Temperature | -45 to +90 | °C    |



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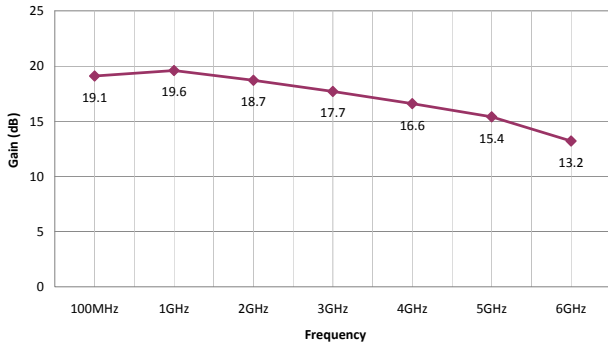
# RedBox

## AMPLIFIER

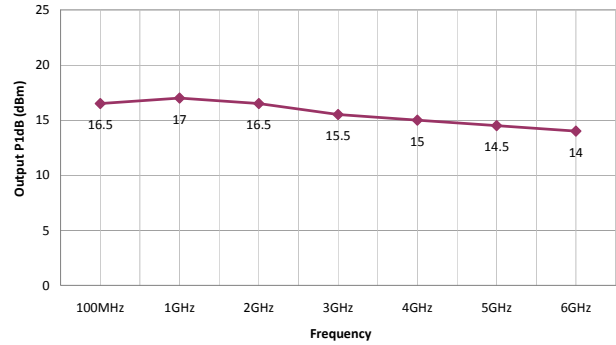
100MHz TO 6.0GHz

MODEL: CRBAMP-100-6000

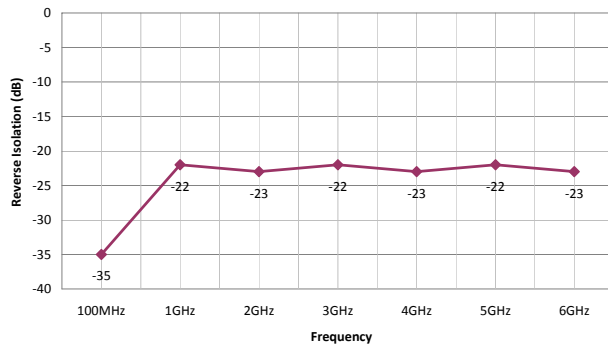
Gain vs. Frequency



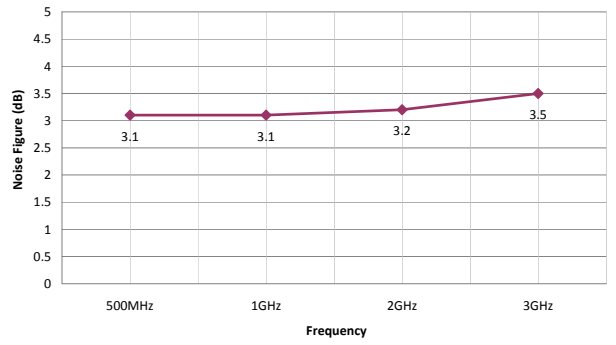
Output P1dB vs. Frequency



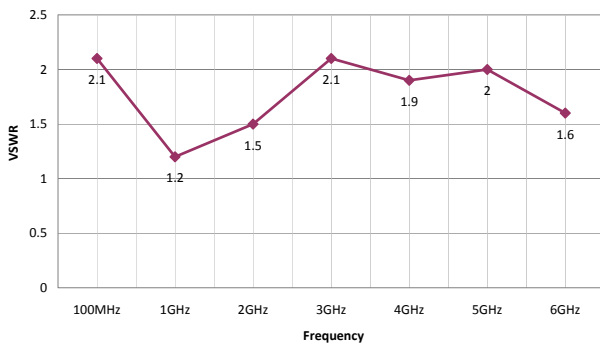
Reverse Isolation vs. Frequency



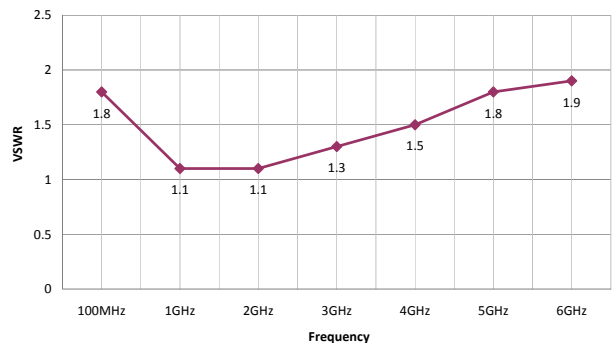
Noise Figure vs. Frequency



Output VSWR vs. Frequency



Input VSWR vs. Frequency



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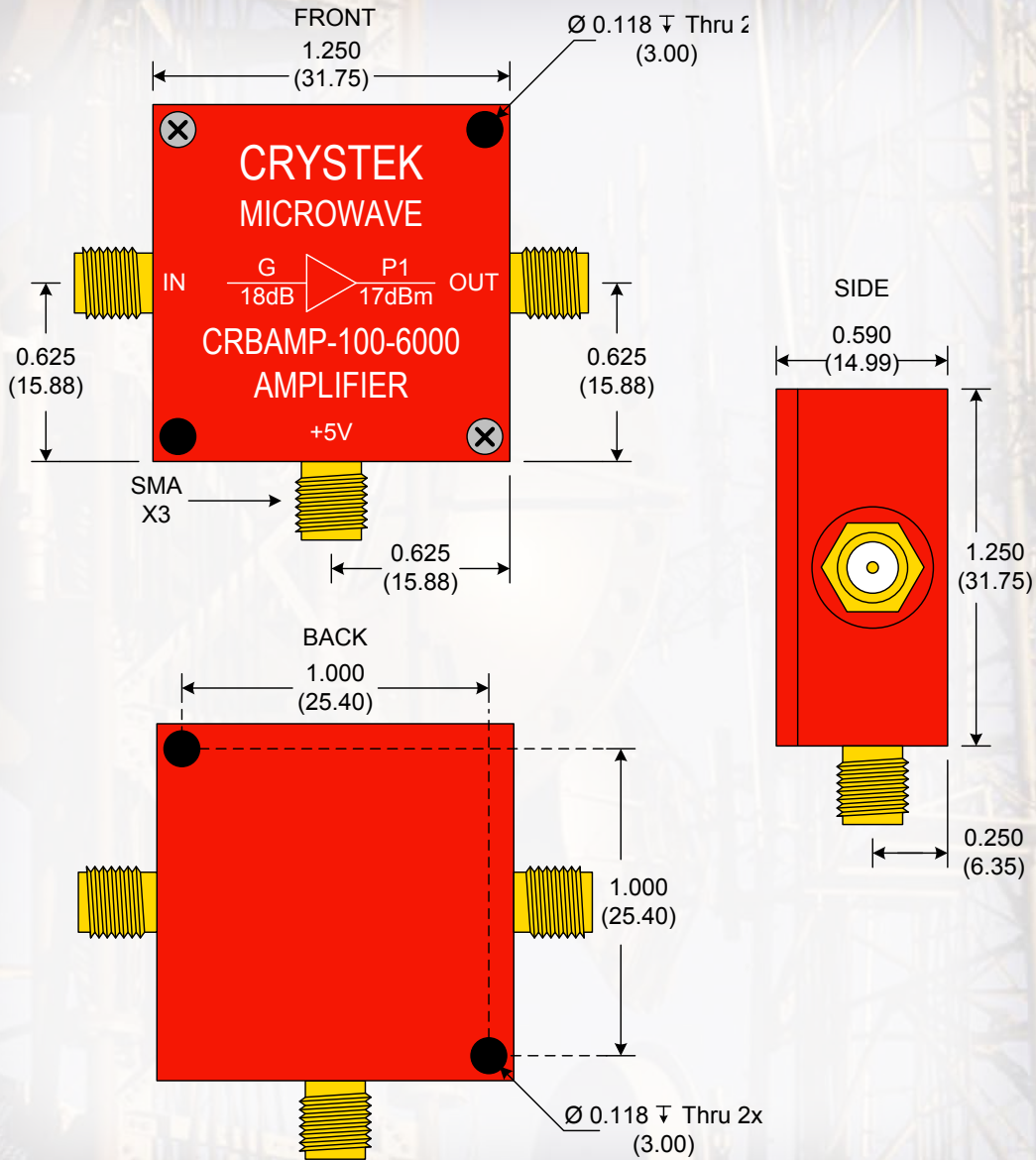
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**RedBox**

MODEL: CRBAMP-100-6000

**AMPLIFIER**

100MHZ TO 6.0GHZ



**How to Order:**

**PN: CRBAMP-100-6000**

**RedBox** Amplifiers are available in-stock at our catalog distributor locations.

Crystek also offers a line of SMA cables.



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# Mouser Electronics

Authorized Distributor

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