

## Broadband High Power Amplifiers (GaN)

### FEATURES:

- ❖ Coverage From 0.02 to 18.0 GHz (Octave/Multi-octave)
- ❖ Up To 100 Watt Output Power (@Psat)
- ❖ Single Bias Power Supply
- ❖ Compact Thin-Film and Package Construction
- ❖ Economically Priced

### APPLICATIONS:

- ❖ General High Power Laboratory RF Sources.
- ❖ Output Amplifiers in test Equipment (ATE & AGE)
- ❖ Driver Amplifiers in RF Distribution Networks
- ❖ Driver Amplifiers for TWTAs
- ❖ UAV & UGV



**CBP (GaN) Series**

### DESCRIPTION:

Cernex's **CBP GaN series** amplifiers are designed for use in a wide range of general purpose applications such as laboratory test equipment, instrumentation and other applications requiring high power output. Reliable operation is achieved using rugged stripline circuit construction with selected GaN devices.

### SPECIFICATIONS:

| Model Number | Frequency Range (GHz) | Gain (dB) Min. | SS Flatness (+/-dB) Max. | NF (dB) Max. | Psat (dBm) Min. | VSWR In/Out Max. | Voltage(V) Current(A) Typ. ** | Case Type (Inches) | ECCN        |
|--------------|-----------------------|----------------|--------------------------|--------------|-----------------|------------------|-------------------------------|--------------------|-------------|
| CBPGV2033037 | 0.02-3.5              | 30             | 3.00                     | 8.0          | 37 Typ          | 2/2.5:1 Typ      | 28V, 1.0A                     | -                  | EAR99       |
| CBPGV2064543 | 0.02-6.0              | 45             | 5.00/7.00                | -            | 25W Typ         | 2:1 Typ          | 60V, 2.5A                     | -                  | EAR99       |
| CBPGU5023541 | 0.5-2.0               | 35             | 1.50                     | 8.0          | 41 Typ          | 2:1              | 28V, 2.0A                     | 3.4x3.0x1.0        | EAR99       |
| CBPGU5024043 | 0.5-2.0               | 40             | 2.00                     | 8.0          | 43 Typ          | 2:1              | 28V, 4.0A                     | 5.4x3.5x1.0        | EAR99       |
| CBPGU5023039 | 0.5-2.5               | 30             | 1.50                     | 8.0          | 39 Typ          | 2:1 Typ          | 38V, 1.0A                     | -                  | EAR99       |
| CBPGU5064035 | 0.5-6.0               | 40             | 2.00                     | 8.0          | 35 Typ          | 2/2.5:1 Typ      | 28V, 1.0A                     | SN8                | EAR99       |
| CBPGU5064037 | 0.5-6.0               | 40             | 2.50                     | 8.0          | 37 Typ          | 2:1 Typ          | 28V, 2.0A                     | DN10               | EAR99       |
| CBPGU5064539 | 0.5-6.0               | 45             | 3.00                     | 8.0          | 39 Typ          | 2:1 Typ          | 28V, 4.0A                     | QNC15              | EAR99       |
| CBPGU5064543 | 0.5-6.0               | 45             | 3.5                      | 8.0          | 43              | 2:1 Typ          | 50V, 2.7A                     | 3.2X1.4X0.8        | EAR99       |
| CBPG02064040 | 2.0-6.0               | 40             | -                        | 8.0          | 40              | 2/2.5:1          | 28V, 1.5A                     | -                  | EAR99       |
| CBPG02064543 | 2.0-6.0               | 45             | -                        | 8.0          | 43              | 2/2.5:1          | 30V, 4.5A                     | -                  | EAR99       |
| CBPG02064643 | 2.0-6.0               | 46             | 3.00                     | 8.0          | 43              | 2/2.5:1          | 50V, 2.0A                     | -                  | EAR99       |
| CBPG02065045 | 2.0-6.0               | 50             | 3.00                     | 8.0          | 45              | 2/2.2:1          | 50V, 4.0A                     | -                  | 3A001.b.4.b |
| CBPG02065046 | 2.0-6.0               | 50             | -                        | 8.0          | 46              | 2/2.2:1          | 30V, 9.0A                     | -                  | 3A001.b.4.b |
| CBPG02065047 | 2.0-6.0               | 50             | 3.50                     | 8.0          | 47              | 2:1              | 50V, 8.0A                     | -                  | 3A001.b.4.b |



## Broadband High Power Amplifiers (GaN)

| Model Number | Frequency Range (GHz) | Gain (dB) Min. | SS Flatness (+/-dB) Max. | NF (dB) Max. | Psat (dBm) Min. | VSWR In/Out Max. | Voltage(V) Current(A) Typ. ** | Case Type | ECCN        |
|--------------|-----------------------|----------------|--------------------------|--------------|-----------------|------------------|-------------------------------|-----------|-------------|
| CBPG02183537 | 2.0-18.0              | 35             | -                        | 8.0          | 37              | 2:1              | 32V, 2A                       | -         | ITAR        |
| CBPG02184039 | 2.0-18.0              | 40             | -                        | 8.0          | 39              | 2:1              | 32V, 2.8A                     | -         | ITAR        |
| CBPG02184539 | 2.0-18.0              | 45             | 3.00                     | 8.0          | 39              | 2:1              | 35V, 2.5A                     | -         | ITAR        |
| CBPG02184341 | 2.0-18.0              | 43             | 3.50                     | 8.0          | 41              | 2:1              | 35V, 5.0A                     | -         | ITAR        |
| CBPG02184043 | 2.0-18.0              | 40             | 4.00                     | 8.0          | 43              | 2:1              | 35V, 10A                      | -         | ITAR        |
| CBPG06124541 | 6.0-12.0              | 45             | 3.00                     | 8.0          | 41              |                  | 28V,3.0A                      | -         | ITAR        |
| CBPG06124543 | 6.0-12.0              | 45             | 3.00                     | 8.0          | 43              |                  | 28V,5.0A                      | -         | ITAR        |
| CBPG06125045 | 6.0-12.0              | 50             | 3.0                      | 8.0          | 45              |                  | 28V, 9.0A                     | -         | ITAR        |
| CBPG06184039 | 6.0-18.0              | 40             | 3.00                     | 8.0          | 39              | 2:1              | 32V, 2.8A                     | -         | ITAR        |
| CBPG06184241 | 6.0-18.0              | 42             | 3.00                     | 8.0          | 41              | 2:1              | 35V, 5.0A                     | -         | ITAR        |
| CBPG06184447 | 6.0-18.0              | 44             | 6.00                     | -            | 47              | 2.0:1            | 28V,15W                       | -         | ITAR        |
| CBPG06184543 | 6.0-18.0              | 45             | 3.00                     | 8.0          | 43              | 2:1              | 35V, 10A                      | -         | ITAR        |
| CBPG06185045 | 6.0-18.0              | 50             | 3.00                     | 8.0          | 45              | 2:1              | 35V, 20A                      | -         | ITAR        |
| CBPG07114543 | 7.8-11.0              | 45             | 2.00                     | 8.0          | 43              | 2:1              | 28V, 2.8A                     | -         | 3A001.b.4.b |
| CBPG07115046 | 7.8-11.0              | 50             | 2.00                     | 8.0          | 46              | 2:1              | 28V, 5.5A                     | -         | 3A001.b.4.b |
| CBPG07115048 | 7.8-11.0              | 50             | 2.00                     | 8.0          | 48              | 2:1              | 28V, 11.5A                    | -         | 3A001.b.4.b |
| CBPG08113545 | 8.0-11.0              | 35             | 1.50                     | 8.0          | 45 Typ          | 2/4:1 Typ        | 28V, 4.0A                     | -         | 3A001.b.4.b |
| CBPG08114047 | 8.0-11.0              | 40             | 2.00                     | 8.0          | 47 Typ          | 2/2:1 Typ        | 28V, 8.0A                     | -         | 3A001.b.4.b |

ALL THE ABOVE SPECIFICATIONS ARE @ 25°C

OTHER FREQUENCY BANDS & HIGHER POWER ARE ALSO AVAILABLE.

TEMPERATURE COMPENSATED AMPLIFIERS & GAIN CONTROL ARE ALSO AVAILABLE

\*CONSULT THE FACTORY

\*\*@SMALL SIGNAL

CERNEX RESERVE THE RIGHT TO CHANGE THE SPECIFICATIONS WITHOUT NOTICE.