

# VBA1000-2000

200 - 1000MHz 2000W Amplifier

- **High reliability proven GaAs design**
- **Higher performance and efficiency than silicon alternatives**
- **Lower cost than comparable GaN solutions**
- **Class A for maximum mismatch drive**
- **Automotive testing**
- **General linear power requirements**

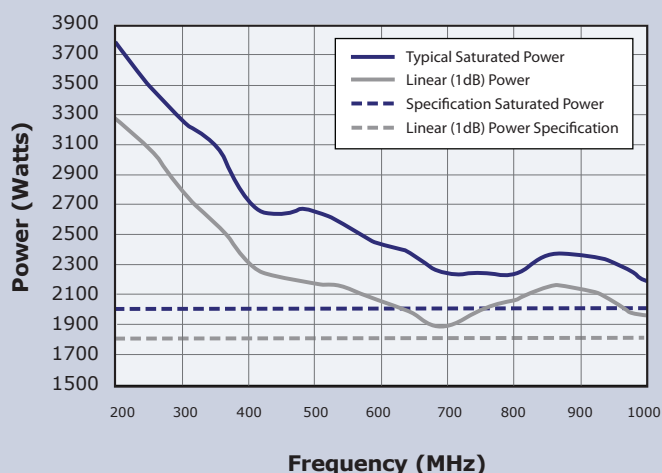
The **VBA1000-2000** is a 200-1000MHz high power amplifier, designed primarily for EMC applications.

Like all our products of the VBA1000 series, it is based on our unique GaAs technology, offering the user the benefits of higher linearity, ruggedness and efficiency than its silicon-based counterparts and lower cost than the more recent GaN additions to the marketplace.

The amplifier operates in class A, the benefits for EMC applications being very low distortion and tolerance of 100% mismatch. Fold-back protection is neither fitted nor needed! This makes it supremely suited for very demanding antenna and test chamber requirements.



## Performance Chart



Choose **GaAs Class A** for the ultimate in linearity, ruggedness, efficiency and cost - only from Vectawave.

*See overleaf for technical specification*

**Electrical**

|                                                 |                                                                       |
|-------------------------------------------------|-----------------------------------------------------------------------|
| <b>Frequency Range (Instantaneous)</b>          | 200-1000MHz                                                           |
| <b>Rated Output Power</b>                       | 2000W Min (2500W typical 200-500MHz)                                  |
| <b>Output Power at 1dB Gain Compression</b>     | 1800W Min (2000W typical 200-500MHz)<br>(1900W typical 800MHz-1.0GHz) |
| <b>Gain</b>                                     | 64dB Min                                                              |
| <b>Third Order Intercept Point (see note 1)</b> | 74dBm                                                                 |
| <b>Gain variation with Frequency</b>            | ±3dB                                                                  |
| <b>Harmonics at 1800W Output Power</b>          | Better than -20dBc                                                    |
| <b>Output Impedance</b>                         | 50 Ohms                                                               |
| <b>Stability</b>                                | Unconditional                                                         |
| <b>Output VSWR Tolerance (see note 2)</b>       | Infinity:1                                                            |
| <b>Input VSWR</b>                               | 2:1 (Max)                                                             |
| <b>Supply Voltage</b>                           | 184-264V AC Delta or 319-457 AC Star                                  |
| <b>Supply Frequency Range</b>                   | 45-63Hz                                                               |
| <b>Supply Power</b>                             | <12kVA (Max)                                                          |
| <b>Mains Connector</b>                          | Appropriate IEC60309 plug (see options)                               |

**Mechanical**

|                                    |                                                |
|------------------------------------|------------------------------------------------|
| <b>RF Connector Style</b>          | Input Type N Female, Output 1-5/8" EIA Flange  |
| <b>Safety Interlock</b>            | 2 x BNC, S/C and O/C to Mute                   |
| <b>USB/GPIB Interface</b>          | Optional                                       |
| <b>Dimensions</b>                  | 2x34U Rack plus 200mm centre panel, 800mm Deep |
| <b>Mass</b>                        | 400kg                                          |
| <b>Operating Temperature Range</b> | 0-40°C                                         |
| <b>Case Style Options</b>          | Rack mount with rear panel connectors          |

**Regulatory Compliance**

|                                         |                      |
|-----------------------------------------|----------------------|
| <b>Conducted and Radiated Emissions</b> | EN61326 Class A      |
| <b>Conducted and Radiated Immunity</b>  | EN61326:1997 Table 1 |
| <b>Safety</b>                           | EN61010-1            |
| <b>Mains Harmonic Currents</b>          | EN61000-3-2          |
| <b>Voltage Fluctuations and Flicker</b> | EN61000-3-3          |

|                |                                                                                               |
|----------------|-----------------------------------------------------------------------------------------------|
| <b>Options</b> | 3 Phase plus P.E. Delta Connection (No neutral)<br>3 Phase, Neutral plus P.E. Star Connection |
|----------------|-----------------------------------------------------------------------------------------------|

**Notes**

- 1 The third order intercept point is a nominal value, as its calculation depends upon the power level at which distortion measurements are made.
- 2 Output VSWR tolerance is specified for excitation within the permitted levels and frequency range

**Represented Worldwide**

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