

# VBA1000-500

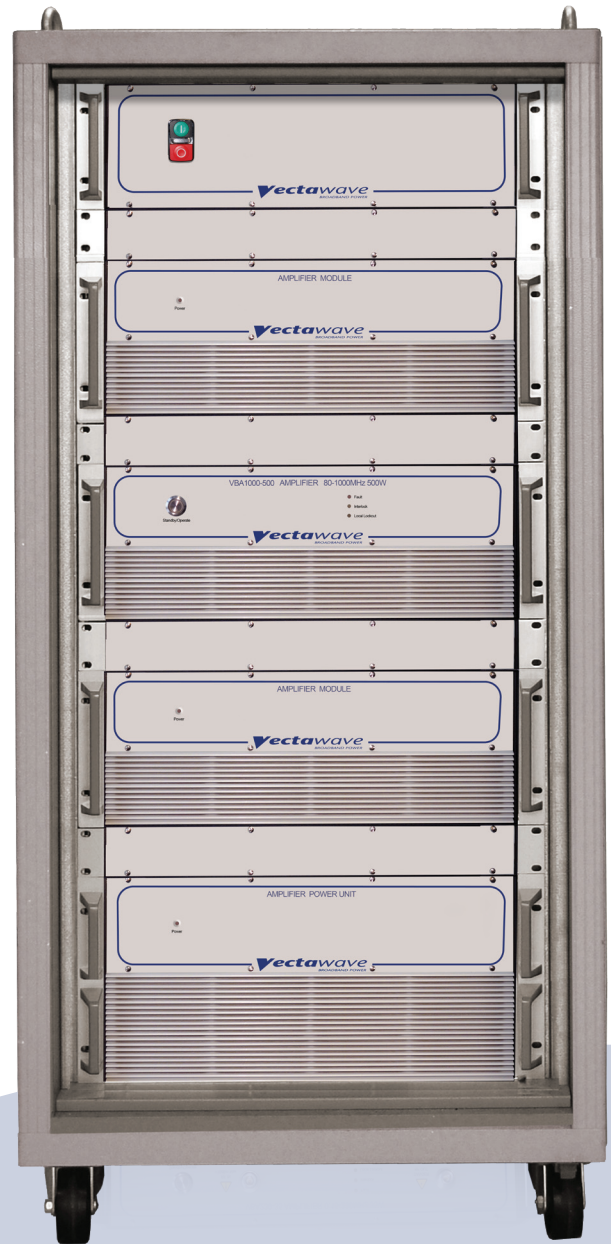
80 - 1000MHz 500W Amplifier

- 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

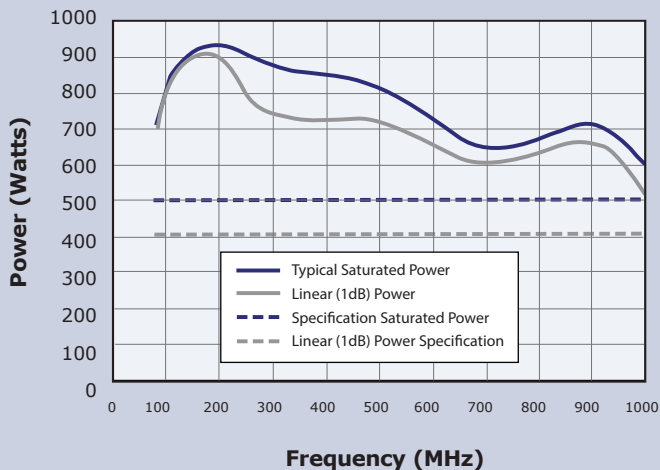
The **VBA1000-500** is a member of our family of 80-1000MHz high power amplifiers, designed primarily for EMC applications.

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.

## Electrical

<b>Frequency Range (Instantaneous)</b>	80-1000MHz
<b>Rated Output Power</b>	500W Min (700W typical 80-500MHz)
<b>Output Power at 1dB Gain Compression</b>	440W Min (600W typical 80-300MHz) (500W typical 80MHz-1.0GHz)
<b>Gain</b>	58dB Min
<b>Third Order Intercept Point (see note 1)</b>	66dBm
<b>Gain variation with Frequency</b>	±3dB
<b>Harmonics at 400W Output Power</b>	-20dBc Max
<b>Output Impedance</b>	50 Ohms
<b>Stability</b>	Unconditional
<b>Output VSWR Tolerance (see note 2)</b>	Infinity any Phase
<b>Input VSWR</b>	2:1 (Max)
<b>Supply Voltage</b>	see options for 3 phase configuration
<b>Supply Frequency Range</b>	45-63Hz
<b>Supply Power</b>	<4kVA (Max)
<b>Mains Connector</b>	Appropriate IEC60309 plug (see options)

## Mechanical

<b>RF Connector Style</b>	RF in N type, RF out 7/16
<b>Safety Interlock</b>	2 x BNC, S/C and O/C to Mute
<b>USB/GPIB Interface</b>	Optional
<b>Dimensions</b>	19 inch, 25U Rack, 800mm Deep
<b>Mass</b>	110kg
<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>Options</b>	3 Phase Delta (5 pin plug) or 3 Phase Star (5 pin plug)
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## 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



**vectawave**  
BROADBAND POWER

Designers and Manufacturers of Solid State RF and Microwave Amplifiers

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