

# VBA1000-1000c

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

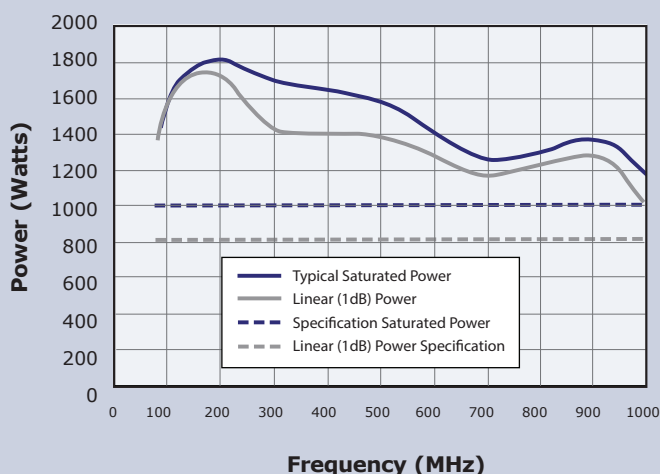
Like all our products of the VBA1000 series, it is based on our unique GaAs technology, offering the user the benefits of higher linearity, ruggedness and efficiency than its silicon-based counterparts and lower cost than the more recent GaN additions to the marketplace.

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.



The amplifier can be controlled from either the front panel or remote control via the Ethernet, USB and GPIB interfaces. The digital interface system manages enabling and disabling the amplifier, monitoring power levels, monitoring power supply health, communicating with the control computer and implementing electrical interlocks. The keypad and display interface is used for monitoring amplifier state, power levels, interlock states etc. and for configuration option.

## 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>	1000W Min (1400W typical 80-500MHz)
<b>Output Power at 1dB Gain Compression</b>	800W Min (1200W typical 80-500MHz) (1000W typical 500MHz-1.0GHz)
<b>Gain</b>	61dB Min
<b>Third Order Intercept Point (see note 1)</b>	70dBm
<b>Gain variation with Frequency</b>	±3dB
<b>Harmonics at 800W 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 any Phase
<b>Input VSWR</b>	1.5:1 (Max)
<b>Input power required for 1000W output.</b>	0dBm (Max)
<b>Maximum permitted input power.</b>	10dBm
<b>Supply Voltage</b>	see Options for 3 Phase configuration
<b>Supply Frequency Range</b>	45-63Hz
<b>Supply Power</b>	<6kVA (Max)
<b>Mains Connector</b>	Appropriate IEC60309 plug (see options)
<b>Cooling</b>	Air cooled with internal fans

**Mechanical**

<b>RF Connector Style</b>	Input Type N Female, Output 7/16 Female
<b>Safety Interlock</b>	2 x BNC, S/C and O/C to Mute
<b>Remote Control Interface</b>	USB/GPIB/Ethernet
<b>Dimensions</b>	19 inch 20U rack, 800mm deep
<b>Mass</b>	160kg
<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>	EN61326:2013 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

