

# VBA1000-45

10kHz – 1GHz 45W Amplifier

- Specialist GTEM cell driver
- Rugged push-pull MOSFET technology
- Class A for maximum mismatch drive
- General linear power requirements

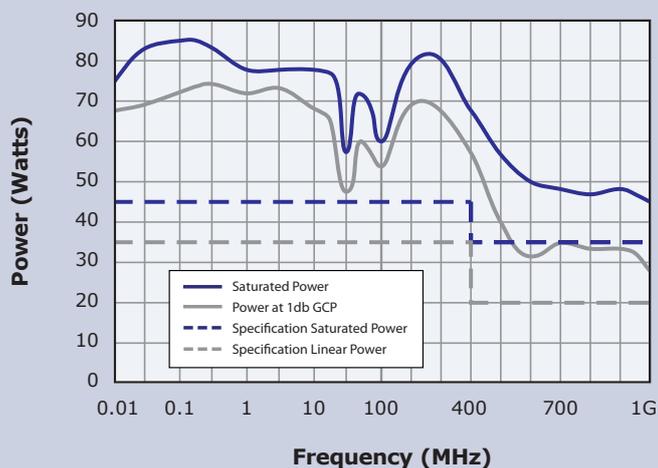
The **VBA1000-45** is an ultra broad-band high power amplifier operating over an instantaneous frequency range of 10kHz to 1GHz, designed primarily for EMC applications. It is particularly useful as a driver for GTEM cells and CDNs.

The design is based on latest generation push-pull LDMOS technology in the output stage, coupled with GaAs technology in the driver stages. It employs proprietary transmission network techniques, giving little degradation of output power up to the high frequency limit.



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

## Performance Chart



Choose **Vectawave** for high efficiency and performance in your regular power amplifier requirements.

*See overleaf for technical specification*

## Specifications

## VBA1000-45

### Electrical

<b>Frequency Range (Instantaneous)</b>	0.01-1000MHz
<b>Rated Output Power</b>	0.01-400MHz 45W Min 400-1000MHz 35W Min
<b>Linear Power at 1dB Gain Compression</b>	0.01-400MHz 35W Min 400-1000MHz 20W Min
<b>Gain</b>	50dB Min
<b>Third Order Intercept Point (see note 1)</b>	57dBm
<b>Gain variation with Frequency</b>	±3dB Max
<b>Harmonics at Minimum Linear 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>	85-264V ac
<b>Supply Frequency Range</b>	47-63Hz
<b>Supply Power</b>	300VA (Max)

### Mechanical

<b>RF Connector Style</b>	Type N Female
<b>Safety Interlock</b>	2 x BNC, S/C and O/C to Mute
<b>USB/GPIB Interface</b>	Optional
<b>Mains Connector Style</b>	IEC320
<b>Dimensions</b>	19 inch, 3U Case, 440mm Deep
<b>Mass</b>	13kg
<b>Operating Temperature Range</b>	0-40°C
<b>Case Style Options</b>	Rack mount with Front or Rear panel connectors Bench mount with Front 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

### 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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