

VBA200-3000

12MHz-200MHz 3kW Amplifier



Vectawave

- Rugged push-pull MOSFET technology
- **Class A** for maximum mismatch drive
- High efficiency proprietary combiner design

The VBA200-3000 is a 12-200MHz high power amplifier designed for applications where a rugged Class A mismatch tolerant amplifier is required.

The amplifier is based on high performance silicon push-pull MOSFET output stages and utilizes exclusive power combining techniques, minimizing loss for a more efficient solution.

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 options.

The amplifier operates in class A, with very low distortion and tolerance of 100% mismatch without foldback. See overleaf for technical specification.

Technical Specification

Electrical

<i>Frequency Range (Instantaneous)</i>	12-200MHz
<i>Rated Output Power</i>	3000W
<i>Output Power at 1dB Gain Compression</i>	2400W
<i>Gain</i>	65dB Min
<i>Third Order Intercept Point (see note 1)</i>	75dBm
<i>Gain variation with Frequency</i>	±3dB
<i>Harmonics at rated linear power</i>	Better than -20dBc
<i>Output Impedance</i>	50 Ohms
<i>Stability</i>	Unconditional
<i>Output VSWR Tolerance (see note 2)</i>	Infinity any phase
<i>Input VSWR</i>	2:1 (Max)
<i>Supply Voltage</i>	200-240V or 350-415V ac
<i>Supply Frequency Range</i>	45-63Hz
<i>Supply Power</i>	11kVA
<i>Mains Connector</i>	IEC60309 plug (see options)

Mechanical

<i>RF Connector Style</i>	Input type N female, output 7/16 female
<i>Safety Interlock</i>	2 x BNC, S/C and O/C to mute
<i>Communication Interface</i>	USB/GPIB/Ethernet and front panel display.
<i>Dimensions</i>	20U Rack, 800mm deep
<i>Mass</i>	190kg
<i>Operating Temperature Range</i>	0-40°C
<i>Case Style Options</i>	Rack Mount with rear panel connectors

Regulatory Compliance

<i>Conducted and Radiated Emissions</i>	EN61326 Class A
<i>Conducted and Radiated Immunity</i>	EN61326:2013 Table 1
<i>Safety</i>	EN61010-1

Options

3 Phase delta connection (No neutral, 4 pin plug)
3 Phase star connection (With Neutral, 5 pin plug)

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.