

VBA250-600

10kHz-250MHz 600W Amplifier



Vectawave

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

The VBA 250-600 is a member of our family of 10kHz-250MHz high power amplifiers, designed primarily for EMC applications.

Like all our products of the VBA250 series, it is based on high performance silicon push-pull MOSFET output stages. The amplifier 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, 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.

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

See overleaf for technical specification.

Technical Specification

Electrical

Frequency Range (Instantaneous)	10kHz-250MHz
Rated Output Power	600W Min, 700W typical (10kHz-80MHz) 550W Min, 600W typical (80-250MHz)
Output Power at 1dB Gain Compression	500W Min, 600W typical (10kHz-80MHz) 400W Min, 500W typical (80-250MHz)
Gain	63dB Min
Third Order Intercept Point (see note 1)	67dBm
Gain variation with Frequency	±2dB
Harmonics at 400W Output Power	Better than -20dBc
Output Impedance	50 Ohms
Stability	Unconditional
Output VSWR Tolerance (see note 2)	Infinity:1
Input VSWR	2:1 (Max)
Supply Voltage	184-264V ac
Supply Frequency Range	47-63Hz
Supply Power	<3kVA (Max)
Mains Connector	IEC320

Mechanical

RF Connector Style	Type N Female
Safety Interlock	2 x BNC, S/C and O/C to Mute
Communication Interface	USB/GPIB/Ethernet
Front panel display	Standard (including forward and reflected power indication)
Dimensions	19 inch, 6U Rack, 550mm Deep
Mass	33kg
Operating Temperature Range	0-40°C
Case Style Options	Rack mount with rear panel connectors

Regulatory Compliance

Conducted and Radiated Emissions	EN61326 Class A
Conducted and Radiated Immunity	EN61326:1997 Table 1
Safety	EN61010-1

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.