VBA250-2500A

10kHz-250MHz 2500W Amplifier

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

The VBA 250-2500A 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.

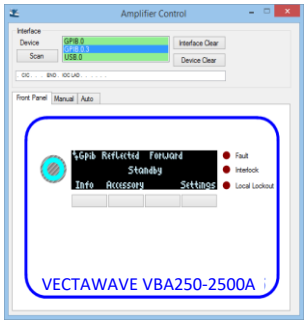
The amplifier can be controlled from either the front panel or remote control via the Ethernet, USB and GPIB interfaces. The digital interface system manages enabling and disabling the amplifier, monitoring power levels, monitoring power supply health, self diagnostic reporting, communicating with the 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.

Remote interface



Remote GUI

Smooth air exhausts

7/16 RF output

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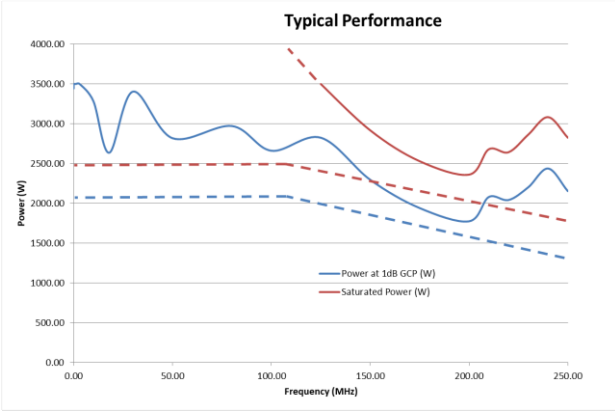
Technical Specification

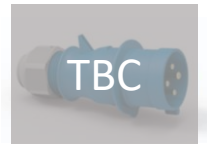
Electrical

Frequency Range (Instantaneous)	10kHz-250MHz
Rated Output Power	2500W 10kHz-100MHz 2500-1900W 100MHz-250MHz (de-rating slope of 4.8W/MHz)
Output Power at 1dB Gain Compression	2100W 10kHz-100MHz 2100-1300W 100-250MHz (de-rating slope of 5.33W/MHz)
Gain	64dB Min
Third Order Intercept Point (see note 1)	70dBm
Gain variation with Frequency	±3dB
Harmonics at linear Output Power	Better than -20dBc
Maximum input power	+10dB
Output Impedance	50 Ohms
Stability	Unconditional
Output VSWR Tolerance (see note 2)	Infinity:1
Input VSWR	2:1 (Max)
AC Supply (3 phase) option a) or b)	a) 200-240Vac, 4 pin plug (No neutral) b) 350-415Vac, 5 pin plug (With neutral)
Supply Frequency Range	47-63Hz
Supply Power	11kVA(Max)
Mains Connector	EN60309 plug



Mechanical

RF Connector Style	Type N Female input, 7/16 female output
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	25U Rack, 800mm Deep
Mass	291kg
Operating Temperature Range	0-40°C
Case Style Options	Rack with rear panel connectors



Option a) 200-240Vac, 4 pin plug (No neutral)

Option b) 350-415Vac, 5 pin plug (With neutral)

Regulatory Compliance

Conducted and Radiated Emissions	EN61326 Class A
Conducted and Radiated Immunity	EN61326:2013 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.