

VBA400-260

10kHz-400MHz 260W Amplifier

Vectawave



- Class A linear and low distortion design
- Ideal for BCI testing
- Mismatch tolerant and unconditionally stable
- Rugged design for EMC testing

Designed specifically for automotive, military and aerospace BCI EMC testing, this mismatch tolerant ClassA amplifier delivers power continuously into the varying match typically associated with this type of testing.

The Class A push pull design ensures a high reliability, low distortion linear performance across the frequency range. This design also ensures that the amplifier will continue to operate at full power even when presented with an open or short circuit at its output.

The unit is powered from a switched mode power supply for high efficiency, high power factor and wide voltage range operation. The unit is air-cooled with integral fans, and is protected against faulty cooling by excess temperature sensing. Two safety interlock connectors are provided, one to short for interlock and the other to open circuit. Front panel indicators are provided to indicate over-temperature, standby and operate and rf interlock operation.

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.

See overleaf for technical specification.

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Technical Specification

Electrical

Frequency Range (Instantaneous)	0.01-400MHz
Output Power at 3dB Gain Compression	260W minimum (>300W typical)
Output Power at 1dB Gain Compression	210W minimum (>240W typical)
Gain	54dB Min
Third Order Intercept Point (see note 1)	64dBm
Gain variation with Frequency	±3dB
Harmonics at rated linear 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	100-264V ac
Supply Frequency Range	45-63Hz
Supply Power	<2kVA (Max)
Mains Connector	IEC 320 C20

Mechanical

RF Connector Style	Type N Female
Safety Interlock	Dual input, S/C and/or O/C to Mute
Communication Interface	USB/GPIB/Ethernet and front panel display.
Dimensions	19 inch, 6U Case, 440mm deep
Mass	30kg
Operating Temperature Range	0-40°C
Case Style Options	Bench model with front panel mounted input/output connectors Rack mountable with front panel mounted input/output connectors Rack mountable with rear panel mounted input/output connectors
Mains Harmonic Currents	EN61000-3-2
Voltage Fluctuations & Flicker	EN61000-3-3

Conducted and Radiated Emissions	EN61326 Class B
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.

