

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

<i>Frequency Range (Instantaneous)</i>	0.01-400MHz
<i>Output Power at 3dB Gain Compression</i>	260W minimum (>300W typical)
<i>Output Power at 1dB Gain Compression</i>	250W Min 210W minimum (>240W typical)
<i>Gain</i>	54dB Min
<i>Third Order Intercept Point (see note 1)</i>	64dBm
<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:1
<i>Input VSWR</i>	2:1 (Max)
<i>Supply Voltage</i>	100-264V ac
<i>Supply Frequency Range</i>	45-63Hz
<i>Supply Power</i>	<2kVA (Max)
<i>Mains Connector</i>	IEC 320 C20

Mechanical

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

<i>Conducted and Radiated Emissions</i>	EN61326 Class B
<i>Conducted and Radiated Immunity</i>	EN61326:2013 Table 1
<i>Safety</i>	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.

