VBA3200-450

700-3200MHz 450W Amplifier

- High reliability proven GaAs design
- Class A for maximum mismatch drive
- General linear power requirements

The VBA3200-450 is a 700-3200MHz high power amplifier, designed primarily for EMC applications. It is based on our GaAs technology, offering the user the benefits of linearity, ruggedness and efficiency. With its compression point close to saturated output, it is equivalent to TWT amplifiers of twice the output power.
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.
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.

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Technical Specification

Electrical

Frequency Range (Instantaneous)	*700-3200MHz*
Rated Output Power	*450W Min*
Output Power at 1dB Gain Compression	*400W Min*
Gain	*57dB Min*
Third Order Intercept Point (see note 1)	*66dBm*
Gain variation with Frequency	*±3dB*
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	*200-240V or 350-415V ac*
Supply Frequency Range	*45-63Hz*
Supply Power	*<4kVA (Max)*
Mains Connector	*IEC 60309 plug (see Options)*

Mechanical

RF Connector Style	*Input Type N Female, Output 7-16 Female*
Safety Interlock	*2 x BNC, S/C and O/C to mute*
Remote Control Interface	*USB/GPIB/Ethernet*
Dimensions	*19 inch, 34U Rack, 800mm deep*
Mass	*200kg*
Operating Temperature Range	*0-40°C*
Options	*3 Phase Delta (5 pin plug)*
	3 Phase Star (5 pin plug)

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.