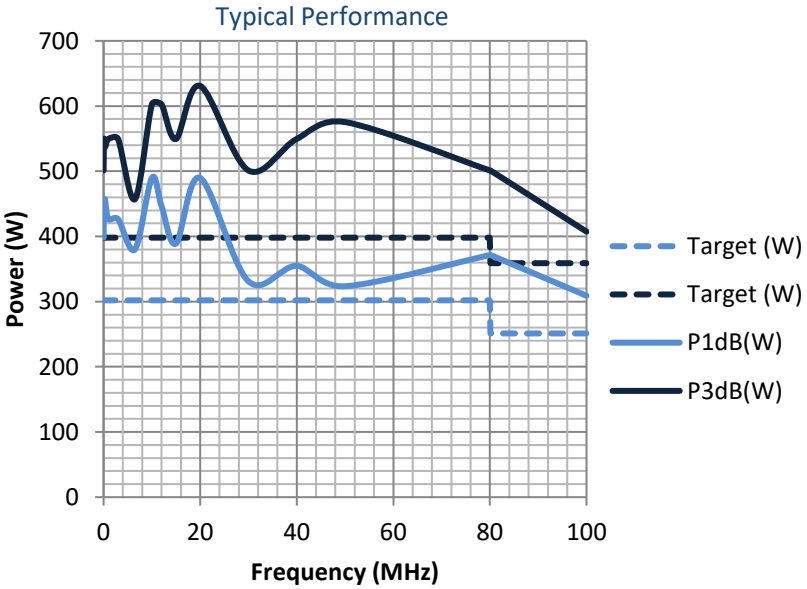
VBA100-400

0.01-100MHz 400W Amplifier



- Rugged push-pull MOSFET technology
- Class A for maximum mismatch drive

The VBA100-400 is a member of our family of 10kHz-400MHz high power amplifiers, designed primarily for EMC applications. It is based on rugged push-pull MOSFET technology, for extra even order harmonic suppression.

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 transducer requirements

See overleaf for technical specification.

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Technical Specification

Electrical	
Frequency Range (Instantaneous)	10kHz-100MHz
Rated Output Power	10kHz-80MHz 400W min , 80-100MHz 360W min
Output Power at 1dB Gain Compression	10kHz-80MHz 300W min , 80-100MHz 250W min
Gain	56dB
Third Order Intercept Point (see note 1)	66dBm
Gain variation with Frequency	±2dB
Harmonics at 150W 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	100 - 240V ac (+/- 10%)
Supply Frequency Range	45-63Hz
Supply Power	<1.5kVA (Max)
Mains Connector	IEC 320
Mechanical	
RF Connector Style	Type N Female
Safety Interlock	Dual input, S/C and/or O/C to Mute
Remote Interface	GPIB/USB/Ethernet
Front panel display	Standard
Dimensions	19 inch, 4U Case, 650mm deep
Mass	33kg
Operating Temperature Range	0-40°C
Case Style Options	Rack mount with rear panel connectors Bench mount with rear panel connectors
Regulatory Compliance	
Conducted and Radiated Emissions	EN61326 Class A
Conducted and Radiated Immunity	EN61326:2013 Table 1
Safety	EN61010-1

British Assessment Bureau
UKAS MANAGEMENT SYSTEMS
8289
ISO 9001
QUALITY MANAGEMENT

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.