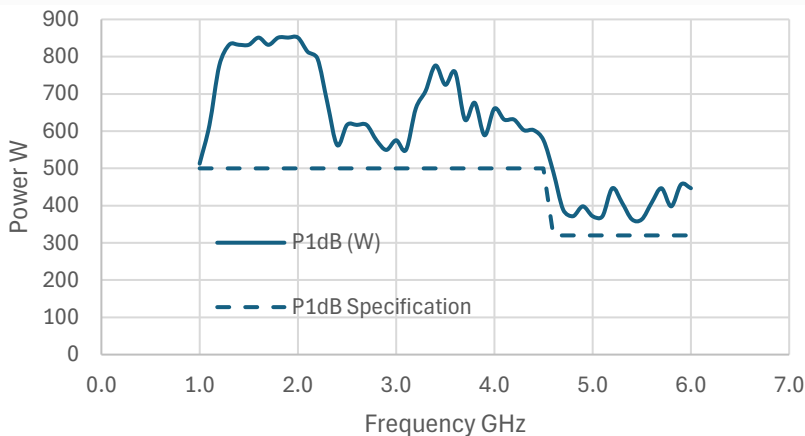


VBA1060-500

1000MHz-6000MHz 500W Amplifier



Typical P1dB (W)



- GaN technology
- **Class A** for maximum mismatch drive
- Featuring high efficiency proprietary Quadrature Hybrid designs

The VBA1060-500 is a 1000-6000MHz 500W high power amplifier designed for applications where a rugged Class A mismatch tolerant amplifier is required.

The amplifier is based on high performance extra wideband GaN output stages and utilizes Vectawave proprietary Quadrature Hybrid 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, 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.

Forward and reflected power sample ports are accessible via the rear panel.

The amplifier operates in class A, with very low distortion and tolerance of 100% mismatch without foldback. See overleaf for technical specification.

Technical Specification

Electrical

<i>Frequency Range (Instantaneous)</i>	1000-6000MHz
<i>Output Power at 1dB Gain Compression</i>	1000-4500MHz 500W 4500-6000MHz 320W
<i>Gain</i>	57dB Min
<i>Third Order Intercept Point (see note 1)</i>	66dBm
<i>Gain variation with Frequency</i>	±3dB
<i>Harmonics at linear (P1dB) 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>	200-240V or 350-415V ac
<i>Supply Frequency Range</i>	45-63Hz
<i>Supply Power</i>	<4kVA (Max)
<i>Mains Connector</i>	IEC 60309 plug (see Options)

Mechanical

<i>RF Connector Style</i>	Input Type N Female, Output 7-16 Female
<i>Safety Interlock</i>	2 x BNC, S/C and O/C to mute
<i>Remote Control Interface</i>	USB/GPIB/Ethernet
<i>Dimensions</i>	19 inch, 20U Rack, 800mm deep
<i>Mass</i>	150kg
<i>Operating Temperature Range</i>	0-40°C
<i>Options</i>	3 Phase Delta (5 pin plug) 3 Phase Star (5 pin plug)

Regulatory Compliance

<i>Conducted and Radiated Emissions</i>	EN61326 Class A
<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.