VBA0860-125

800MHz-6000MHz 125W Amplifier

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

The VBA0860-125 is a 800-6000MHz 125W 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.

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Technical Specification

Electrical

Frequency Range (Instantaneous)	*800-6000MHz*
Rated Output Power	*125W*
Output Power at 1dB Gain Compression	*100W*
Gain	*51dB Min*
Third Order Intercept Point (see note 1)	*60dBm*
Gain variation with Frequency	*±3dB*
Harmonics at rated linear power	*Better than -20dBc (1-6GHz)* *Better than -15dBc (0.8-6GHz)*
Output Impedance	*50 Ohms*
Stability	*Unconditional*
Output VSWR Tolerance (see note 2)	*Infinity any phase*
Input VSWR	*2:1 (Max)*
Supply Voltage	*100-240Vac (+/- 10%)*
Supply Frequency Range	*45-63Hz*
Supply Power	*2kVA*
Mains Connector	*IEC320 –C20*

Mechanical

RF Connector Style	*Input type N female, output N female*
Sample ports	*Forward N type female, Reverse N type female*
Safety Interlock	*2 x BNC, S/C and O/C to mute*
Communication Interface	*USB/GPIB/Ethernet*
Dimensions	*4U Rack, 600mm deep*
Mass	*20kg*
Operating Temperature Range	*0-40°C*
Case Style Options	*Rack Mountable with rear panel connectors*

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.