Vectawave
Technology Limited

VBA1000-250S

80 - 1000MHz 250W Amplifier

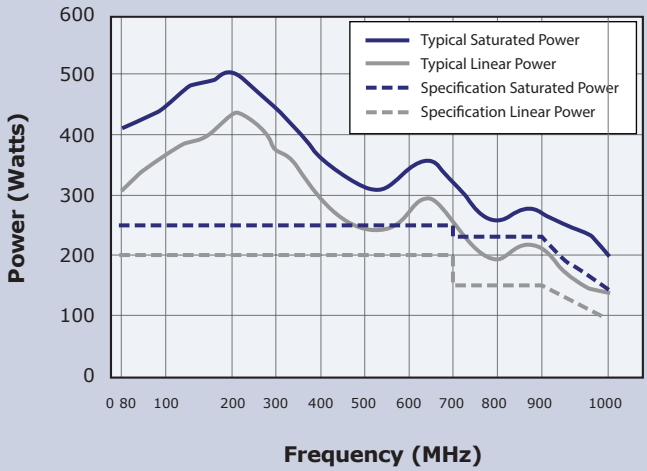
- **Rugged push-pull Silicon LDMOS technology**
- **Class A for maximum mismatch drive**
- **General linear power requirements**

The **VBA1000-250S** is an 80-1000MHz high power amplifier, designed primarily for EMC applications.

The amplifier produces around 300W P1dB at the important VHF frequencies, and is housed in a compact 4U case. VBA1000-250S is intended for applications where an 18V/m field is required and incorporates measures to improve power delivery into high VSWR loads.

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.

Performance Chart



Specifications VBA1000-250S

Electrical

Frequency Range (Instantaneous)	80-1000MHz
Output Power at 3dB Gain Compression	250W 80MHz to 700MHz
	230W 700MHz to 900MHz
	de rating slope of 0.9W/MHz 900MHz-1000MHz
Output Power at 1dB Gain Compression	200W 80MHz to 700MHz
	150W 700MHz to 900MHz
	de rating slope of 0.5W/MHz 900MHz-1000MHz
Gain	56dB Min
Third Order Intercept Point (see note 1)	64dBm
Gain variation with Frequency	±3dB
Harmonics at Rated Linear 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	<1kVA (Max)
Mains Connector	IEC320

Mechanical

RF Connector Style	Type N Female
Safety Interlock	Dual input, S/C and/or O/C to Mute
Remote Control Interface	USB/GPIB/Ethernet
Dimensions	19 inch, 4U Case, 500mm deep
Mass	18kg
Operating Temperature Range	0-40°C
Case Style Options	Rack mount with Front or Rear panel connectors
	Bench mount with Front 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

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Designers and Manufacturers of Solid State RF and Microwave Amplifiers