

# VBA3100-180

## 800MHz - 3.1GHz 180W Amplifier

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

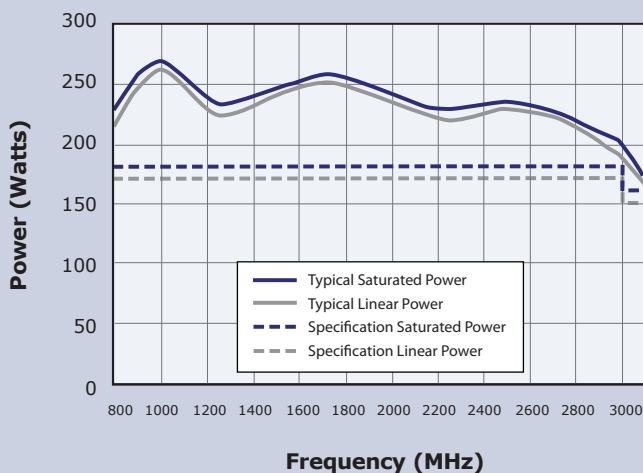
The **VBA3100-180** is a member of our family of 800MHz-3.1GHz high power amplifiers, designed primarily for EMC applications.

Like all our products of the VBA3100 series, 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

### Performance Chart



Choose **GaAs Class A** for linearity, ruggedness, efficiency and cost.

**See overleaf for technical specification**

## Electrical

<b>Frequency Range (Instantaneous)</b>	800-3100MHz
<b>Rated Output Power</b>	180W Min, 220W typical (800MHz-3.0GHz) 160W Min, 170W typical (3.0GHz-3.1GHz)
<b>Output Power at 1dB Gain Compression</b>	170W Min, 210W typical (800MHz-3.0GHz) 150W Min, 160W typical (3.0GHz-3.1GHz)
<b>Gain</b>	54dB Min
<b>Third Order Intercept Point (see note 1)</b>	64dBm
<b>Gain variation with Frequency</b>	±3dB
<b>Harmonics at 170W Output Power (800MHz-3.0GHz)</b>	Better than -20dBc
<b>Output Impedance</b>	50 Ohms
<b>Stability</b>	Unconditional
<b>Output VSWR Tolerance (see note 2)</b>	Infinity:1
<b>Input VSWR</b>	2:1 (Max)
<b>Supply Voltage</b>	180-264Vac
<b>Supply Frequency Range</b>	45-63Hz
<b>Supply Power</b>	<1.6kVA (Max)
<b>Mains Connector</b>	IEC320

## Mechanical

<b>RF Connector Style</b>	Type N Female
<b>Safety Interlock</b>	2 x BNC, S/C and O/C to Mute
<b>USB/GPIB Interface</b>	Optional
<b>Dimensions</b>	19 inch, 9U Case, 550mm Deep
<b>Mass</b>	47kg
<b>Operating Temperature Range</b>	0-40°C
<b>Case Style Options</b>	Rack mount with rear panel connectors

## Regulatory Compliance

<b>Conducted and Radiated Emissions</b>	EN61326 Class A
<b>Conducted and Radiated Immunity</b>	EN61326:1997 Table 1
<b>Safety</b>	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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