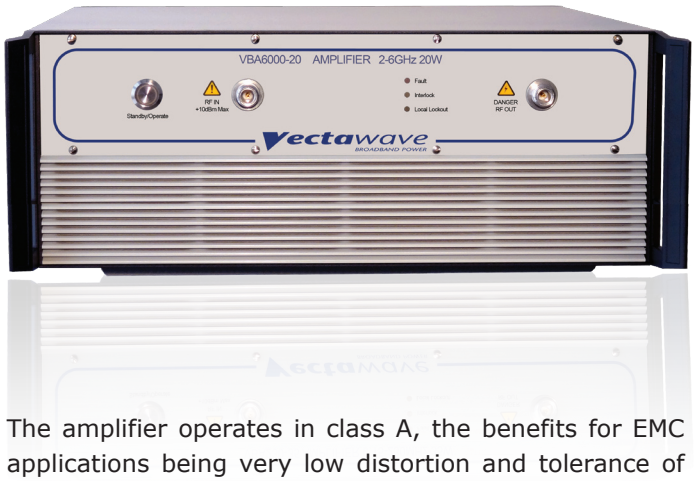
Vectawave
Technology Limited

VBA6000-20

2 - 6GHz 20W Amplifier

- **High reliability proven GaAs design**
- **Class A for maximum mismatch drive**
- **General linear power requirements**

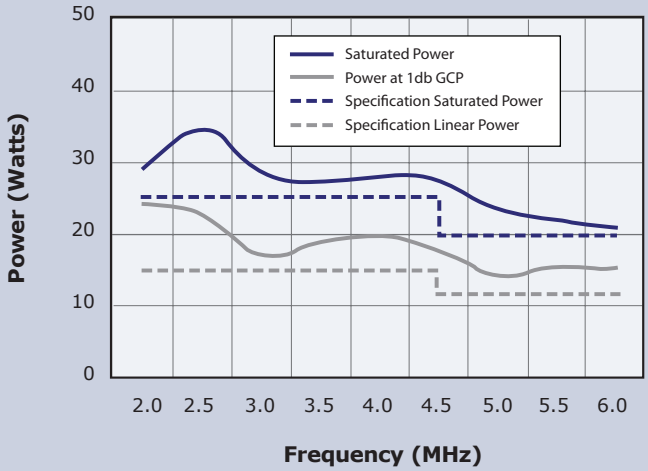


The **VBA 6000-20** is a member of our family of 2.0-6.0GHz high power amplifiers, designed primarily for EMC applications.

Like all our products of the VBA 6000 series, it is based on our GaAs technology, offering the user the benefits of linearity, ruggedness and efficiency

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

Specifications — VBA6000-20

Electrical

Frequency Range (Instantaneous)	2.0-6.0GHz
Rated Output Power	25W Min, 27W typical (2.0-4.5GHz)
	20W Min, 21W typical (4.5GHz-6.0GHz)
Output Power at 1dB Gain Compression	15W Min, 16W typical (2.0-4.5GHz)
	12W Min, 14W typical (4.5GHz-6.0GHz)
Gain	44dB Min
Third Order Intercept Point (see note 1)	51dBm
Gain variation with Frequency	±2.0dB
Harmonics at 12W Output Power (2.0-6.0GHz)	Better than -20dBc
Output Impedance	50 Ohms
Stability	Unconditional
Output VSWR Tolerance (see note 2)	Infinity:1
Input VSWR	2:1 (Max)
Supply Voltage	85-264V ac
Supply Frequency Range	47-63Hz
Supply Power	<250VA (Max)
Mains Connector	IEC320

Mechanical

RF Connector Style	Type N Female
Safety Interlock	2 x BNC, S/C and O/C to mute
USB/GPIB Interface	Optional
Dimensions	19 inch, 4U case, 550mm deep
Mass	17kg
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	EN61326:1997 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

Vectawave Technology Limited

Designers and Manufacturers of Solid State RF and Microwave Amplifiers

Represented Worldwide

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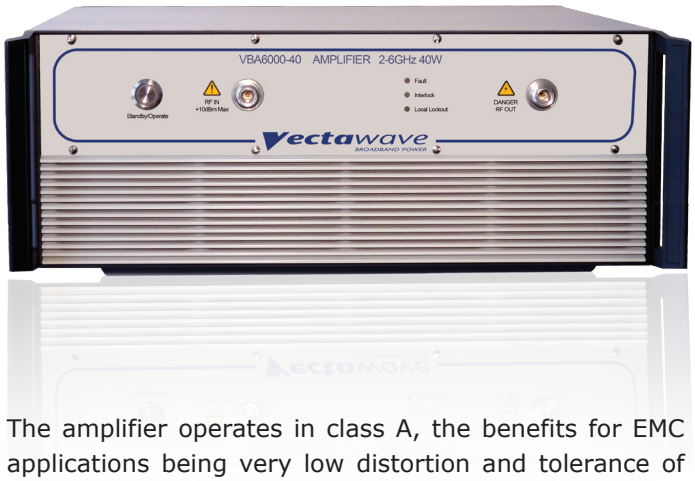
Technology Limited

VBA6000-40

2 - 6GHz 40W Amplifier

- **High reliability proven GaAs design**
- **Class A for maximum mismatch drive**
- **General linear power requirements**

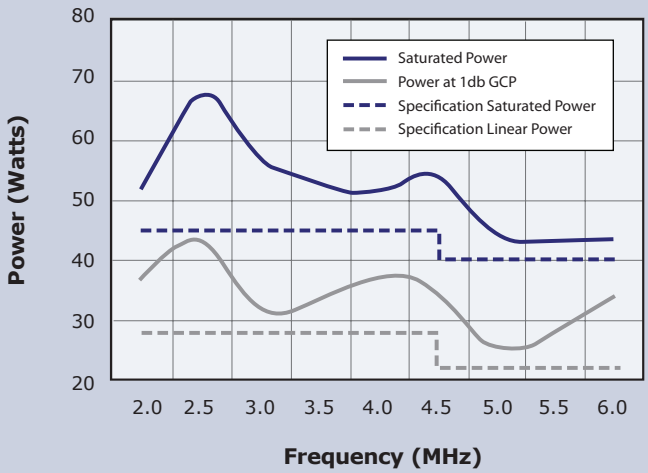


The **VBA 6000-40** is a member of our family of 2.0-6.0GHz high power amplifiers, designed primarily for EMC applications.

Like all our products of the VBA 6000 series, it is based on our GaAs technology, offering the user the benefits of linearity, ruggedness and efficiency

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

Specifications — VBA6000-40

Electrical

Frequency Range (Instantaneous)	2.0-6.0GHz
Rated Output Power	45W Min, 50W typical (2.0-4.5GHz)
	40W Min, 43W typical (4.5GHz-6.0GHz)
Output Power at 1dB Gain Compression	28W Min, 30W typical (2.0-4.5GHz)
	22W Min, 24W typical (4.5GHz-6.0GHz)
Gain	47dB Min
Third Order Intercept Point (see note 1)	54dBm
Gain variation with Frequency	±2.5dB
Harmonics at 22W Output Power (2.0-6.0GHz)	Better than -20dBc
Output Impedance	50 Ohms
Stability	Unconditional
Output VSWR Tolerance (see note 2)	Infinity:1
Input VSWR	2:1 (Max)
Supply Voltage	85-264V ac
Supply Frequency Range	47-63Hz
Supply Power	<500VA (Max)
Mains Connector	IEC320

Mechanical

RF Connector Style	Type N Female
Safety Interlock	2 x BNC, S/C and O/C to mute
USB/GPIB Interface	Optional
Dimensions	19 inch, 4U case, 550mm deep
Mass	20kg
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	EN61326:1997 Table 1
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