

# VBA1000-70

10 - 1000MHz 70W Amplifier

- High reliability proven GaAs design
- Higher performance and efficiency than silicon alternatives
- Lower cost than comparable GaN solutions
- Class A for maximum mismatch drive
- General linear power requirements

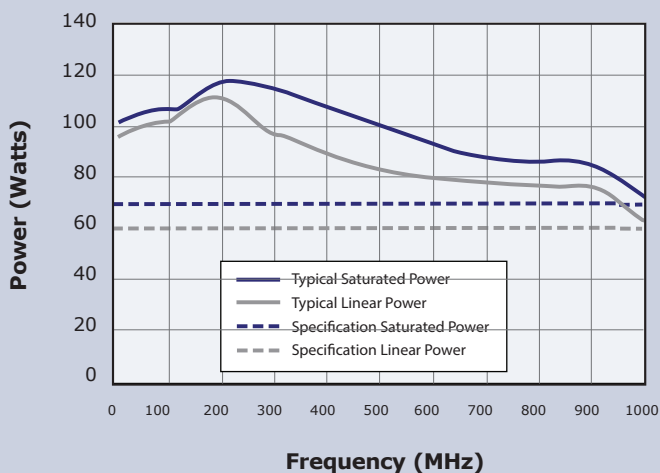
The **VBA1000-70** is a member of our family of 10-1000MHz high power amplifiers, designed primarily for EMC applications.

Like all our products of the VBA1000 series, it is based on our unique GaAs technology, offering the user the benefits of higher linearity, ruggedness and efficiency than its silicon-based counterparts and lower cost than the more recent GaN additions to the marketplace.



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 transducer and test chamber requirements.

## Performance Chart



Choose **GaAs Class A** for the ultimate in linearity, ruggedness, efficiency and cost - only from Vectawave.

**See overleaf for technical specification**

## Electrical

|   |                                  |
|---|----------------------------------|
| <b>Frequency Range (Instantaneous)</b>          | 10-1000MHz                       |
| <b>Rated Output Power</b>                       | 70W Min (100W typical 10-500MHz) |
| <b>Output Power at 1dB Gain Compression</b>     | 60W Min (80W typical 10-500MHz)  |
| <b>Gain</b>                                     | 49dB Min                         |
| <b>Third Order Intercept Point (see note 1)</b> | 58dBm                            |
| <b>Gain variation with Frequency</b>            | ±3dB                             |
| <b>Harmonics at 60W Output Power</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>                           | 85-264V ac                       |
| <b>Supply Frequency Range</b>                   | 45-63Hz                          |
| <b>Supply Power</b>                             | <500VA (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, 4U Case, 550mm Deep  |
| <b>Mass</b>                        | 15kg  |
| <b>Operating Temperature Range</b> | 0-40°C  |
| <b>Case Style Options</b>          | Rack mount with Front or Rear panel connectors<br>Bench mount with Front 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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**Vectawave**  
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Designers and Manufacturers of Solid State RF and Microwave Amplifiers