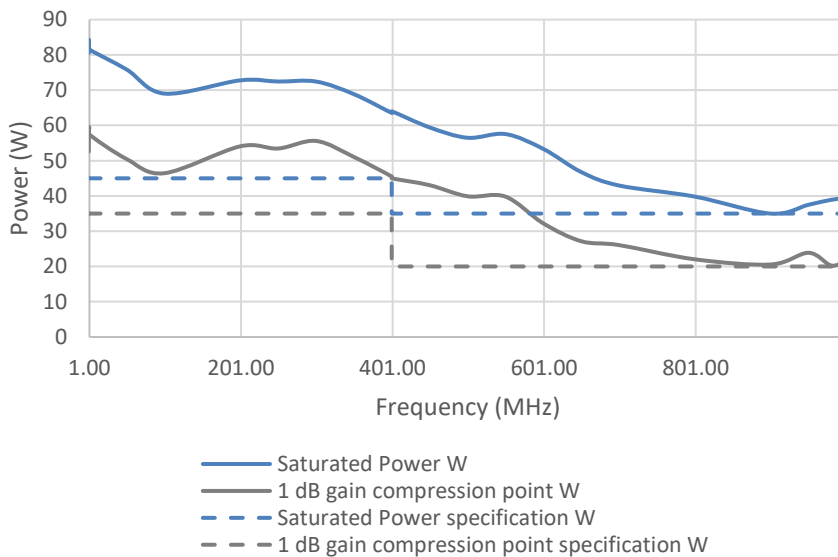


VBA1000-45

10kHz-1GHz 45W Amplifier



Typical Performance



- Specialist GTEM cell driver
- Class A for maximum mismatch drive
- General linear power requirements

The VBA1000-45 is an ultra broad-band high power amplifier operating over an instantaneous frequency range of 10kHz to 1GHz, designed primarily for EMC applications. It is particularly useful as a driver for GTEM cells and CDNs. The design is based on latest generation push-pull LDMOS technology in the output stage, coupled with GaAs technology in the driver stages. It employs proprietary transmission network techniques, giving little degradation of output power up to the high frequency limit.

The amplifier operates in class A, the benefits for EMC applications being very low distortion and tolerance of 100% mis-match. Fold-back protection is neither fitted nor needed! This makes it supremely suited for very demanding transducer requirements

Technical Specification

Electrical	
Frequency Range (Instantaneous)	0.01-1000MHz
Output Power at 3dB Gain Compression	0.01-400MHz 45W Min 400-1000MHz 35W Min
Output Power at 1dB Gain Compression	0.01-400MHz 35W Min 400-1000MHz 20W Min
Gain	50dB Min
Third Order Intercept Point (see note 1)	57dBm
Gain variation with Frequency	±3dB
Maximum input power	+10dBm
Harmonics at minimum 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	300VA(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	Optional
Dimensions	19 inch, 3U Case, 440mm deep
Mass	13kg
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.

