

VBA2000-4000P

1-2GHz 4kW Pulsed Amplifier

- Solid State GaN Technology
- RTCA DO-160 Section 20 testing
- CW Capability
- Internal Pulse Generation

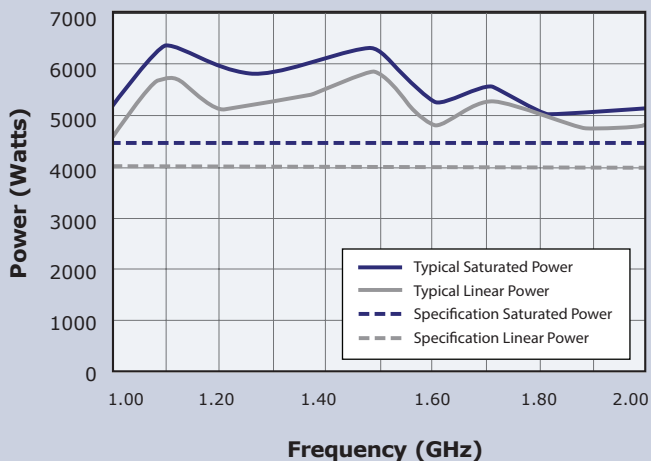


The **VBA 2000-4000P** is a pulsed amplifier operating over the 1-2GHz frequency band with 4kW output power.

It utilizes GaN technology for its specific suitability for this application, giving high pulse power and solid state reliability.

The amplifier runs in class AB linear mode with modest CW output capability, making it suitable for CW and SW tests as well as Pulsed Mode radiated susceptibility in Section 20 of the RTCA DO-160 standard, with a suitable antenna and chamber. The amplifier incorporates an internal pulse modulator, programmable from either the front panel or remote control.

Performance Chart



Electrical

| | |
|---|------------------------------|
| Frequency range (instantaneous) | 1-2 GHz |
| Rated output power | 4.5kW minimum pulsed, 50W CW |
| Output power at 1dB gain compression | 4kW pulsed typical |
| Gain | 66dB min at rated output |
| Gain variation with frequency | ±2dB |
| Harmonics at 4kW pulsed | Better than -20dBc |
| Output impedance | 50 Ohms |
| Stability | Unconditional |
| Output VSWR tolerance (see note 1) | Infinity:1 |
| Input VSWR | 2:1 (Max) |
| Supply voltage | 200-240V ac |
| Supply frequency range | 50-60Hz |
| Supply power | <3kVA (Max) |
| Mains connector | IEC320-C20 |

| | |
|-------------------------------|------------------|
| Pulse rise/fall time | <50ns |
| Pulse delay (external) | <200ns |
| Pulse width | 100µs max at 4kW |
| Duty cycle | 10% max at 4kW |

Pulse Generator

| | |
|-----------------------------------|--------------|
| Pulse width range | 0.1-500µs |
| Pulse repetition frequency | 100-10,000Hz |

Mechanical

| | |
|------------------------------------|---------------------------------------|
| RF Connector Style | Input N(f), output DIN 7-16(f) |
| Safety Interlock | 2 x BNC(f), S/C and O/C to mute |
| Pulse In/Out | BNC(f) |
| Ethernet/USB/GPIB interface | Standard |
| Dimensions | 19 inch, 9U case, 550mm deep |
| Mass | 47kg |
| Operating Temperature Range | 0-40°C |
| Case style options | Rack mount with rear panel connectors |

Regulatory Compliance

| | |
|---|----------------------|
| Conducted and Radiated Emissions | EN61326 Class A |
| Conducted and Radiated Immunity | EN61326:2013 table 1 |
| Safety | EN61010-1 |

Notes

- Output VSWR tolerance is specified for excitation within the permitted levels and frequency range. The amplifier may limit at >1kW reflected power.

