

X-Band Radar Solid State Power Amplifier

9.3-9.8 GHz, 4000 Watts

MODEL BHCDP938988-4000

Pulsed Amplifier Features:

- Class AB Gallium Nitride (GaN) Technology
- High Output Power Dynamic Range
- Excellent Efficiency
- RF Input & Output Sample Detectors
- Pulse Width and Duty Factor Protection
- Thermal and Load VSWR Protection
- Remote Status/Control Interface (Ethernet)
- Ruggedized for Harsh Environmental Apps
- Customization Available
- RF Modular Combining 2kW-16kW
- Graceful Degradation



Typical Performance Specifications

- Frequency Range: 9.3 to 9.8GHz
- Instantaneous Bandwidth: 500MHz
- Output Power: 4000W Peak
- Power Gain: 66dB (Nominal)
- Pulse Width: 0.5 to 50 μ s (Max)
- Duty Cycle: 10% (Max)
- PRF: 50kHz (Max)
- Pulse Droop: <1.0dB (Typical)
- Pulse Rise & Fall Time: <50ns (Typical)
- Input VSWR: <1.5:1
- Output Load VSWR: <1.5:1
- Load VSWR Protection: ∞ VSWR (Circulator)
- Output Fwd. & Ref. Sample: -60dBc
- Harmonics: -60dBc
- Phase Noise: -95 dBc/Hz @ 100Hz
- Noise Output (RF Off): -170dBm/Hz (Typical)

- DC Voltage Input: 50V @ 3750W (10% DF, 4kW)
- AC Power Input: 115VAC 400Hz 1.5A (Fans Only)
- Operating Temperature: 0°C to +50°C baseplate
- Operating Humidity: 0 to 95% non-condensing
- Operating Shock & Vibration: Per Mil-Std-810F
- Operating Altitude: 50,000 Ft.
- Control Interface: Ethernet (RJ-45)
- Gate Control (On/Off): RS-422 differential
- RF Connectors:
 - RF Input: TNC (F)
 - RF Output: WR-90
- Size: 12.5" x 13" x 9"
- Weight: 46 lbs.

COMTECH PST proudly introduces a new Gallium Nitride (GaN) amplifier for airborne X-Band pulsed radar applications. The AB linear design operates from 9.3 to 9.8 GHz frequency range over an instantaneous bandwidth of 500MHz. Development of this product is for a TWT Replacement. The amplifier design features Self Protection for Load VSWR, Duty Factor, Pulse Width, Temperature, as well as a graceful degradation in case of a RF power module failure. An MTBF increase of 10 times that of a the TWT is achieved for greatly improved reliability and lower maintenance costs. Custom configurations and features are available as well as specific power levels up to 16kW.

Contact us with your requirements today.
Call: 631-777-8900 or Email sales@comtechpst.com or contact your local representative.