

X-Band Solid State Power Amplifier Module

9.0-10 GHz, 1500 Watts

MODEL BMCAP99109-1500

Features:

- AB Linear Gallium Nitride (GaN) Technology
- High Output Power Dynamic Range
- Excellent Efficiency
- RF Output (Forward/Reverse)
- Pulse Width and Duty Factor Protection
- Thermal and Load VSWR Protection
- Optional Digital Interface for Control & Status Monitoring
- Fast Blanking
- Low Phase Noise



Performance Specifications

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|------------------------------|--------------------|
| • Frequency Range: | 9.0 to 10.0 GHz |
| • Peak Output Power: | 1500W Typical |
| • Power Gain: | 62dB nominal |
| • Power Gain Variation: | ±2 dB |
| • Pulse Width: | 0.25 to 100 µs max |
| • Duty Cycle: | <6% max |
| • Pulse Droop: | ≤0.015dB/µs |
| • Pulse Rise & Fall Time: | <50ns |
| • Input VSWR: | <2:1 |
| • Output Load VSWR | <2:1 |
| • Load VSWR Protection: | ∞VSWR |
| • RF Input Sample: | -15dBc |
| • Harmonics: | |
| 2Fo: | <-40dBc |
| 3Fo: | <-50dBc |
| • RF Pulse: On-Off Isolation | ≥ 110 dBc |

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|--------------------------------|-----------------------------|
| • DC Voltage Input: | +28VDC ±1VDC |
| • DC Supply Current: | 12.5 Amps nominal for 5% DF |
| • RF to DC Efficiency: | 25% nominal |
| • Operating Temperature: | -40°C to +65°C baseplate |
| • Operating Humidity: | 0 to 95% non-condensing |
| • Operating Shock & Vibration: | Per Mil-Std-810F |
| • Operating Altitude: | Up to 30,000 Ft. |
| • PA Enable/Disable: | Low Voltage TTL |
| • RF Connectors: | |
| RF Input and Sample Ports: | SMA |
| RF Output: | Type TNC (WG -90 optional) |
| • DC & Interface Connector: | Combo-D-Subminiature |
| • Size: | 9.6" x 6.8" x 2.00" |
| • Weight: | 5.5 lbs. |

COMTECH PST proudly introduces a new Gallium Nitride (GaN) amplifier for applications in the X-Band radar market. The AB linear design operates over the 9.0-10.0 GHz frequency range intended for use in radar applications. The amplifier design features include pulse width and duty factor protection as well as thermal and load VSWR fault monitoring. Consistent with its planned technology development roadmap, Comtech is leading the field with the latest in GaN-based RF device performance and advanced amplifier development.