

X-Band Linear Solid State Power Amplifier

7.125-7.725 GHz, 500 Watts

MODEL BHED718778-500

Linear Solid State Amplifier Features:

- Smallest Footprint SSPA
- Class AB Gallium Nitride (GaN) Technology
- High Output Power Dynamic Range
- Excellent Efficiency
- RF Output Sample Port
- Digital RF Forward/Reverse Power Monitoring
- Spectrum Regrowth -25 dBc @ 56dBm
- Thermal and Load VSWR Protection
- Remote Status/Control Interface
- Weatherproof for Harsh Environmental Apps
- Graceful Degradation
- Cold Start



Typical Performance Specifications

- Frequency Range: 7.125 to 7.725 GHz
- Instantaneous 3dB Bandwidth: 600 MHz
- Rated Output Power: 500W Class AB
- Power Gain: 50 dB (Minimum)
- Gain Adjustment: -10 dB (Minimum)
- Gain Variation at 500 W ± 1.6 dB (Full Band)
- Gain Variation at any Power ± 0.5 dB (any 40MHz)
- Gain Stability at 500W + 0.25 dB (24hours)
- Gain Slope ± 0.02 dB/MHz (Typical)
- Duty Cycle: 100%
- AM/PM Conversion 3.5°/dB @ P_{Rated} -1dB
- Spectrum Regrowth (QPSK) -25 dBc @ P_{Rated} -1dB
 QPSK ±1 to 1.5 Symbol rate offset
- Output Load VSWR <1.5:1
- Load VSWR Protection: 2:1 VSWR (No Damage)
- Output Sample: -50 dB Nominal
- Harmonics: -77 dBc
- Noise Figure 18 dB (Max.)

- AC Voltage Input: 180-264 VAC 47-63Hz 3KVA
- Operating Temperature: -40°C to +60°C
- Operating Humidity: 0 to 100% condensing
- Operating Shock & Vibration: Per Mil-Std-810G
- Operating Altitude: 10,000 Ft.
- MTBF >50K Hours
- RF Power Monitoring: Fwd, Rev, Input
- Control Interface: RS485, RS232
- RF Connectors:
 - RF Input: Type N (F)
 - RF Output: CPR-112G WG Flange
 - RF Monitoring 50 dB Type N (F) Front Panel
- EMI/EMC Requirements MIL-STD-461G CE102, CS114, CS115, CS116, RE102, CE106, RS103
- Size: 14" x 10.4" x 23"
- Weight: 65 lbs.

COMTECH PST proudly introduces a Solid-State Power Amplifier for Ground Mobile Military Communication and Datalink applications using the latest Gallium Nitride (GaN) RF power devices. The efficient class AB design operates from 7.125 to 7.725 GHz frequency while maintaining excellent linearity performance at rated power. Developed to replace older TWTAs technology, this product operates reliably in harsh environmental conditions. The amplifier design features Self Protection for Load VSWR, Temperature, as well as a graceful degradation in case of a RF power module failure. High MTBF supports improved reliability and lower maintenance costs. Comtech will custom design specific configurations and features over a wide frequency range and power levels to meet your exact application.

Contact us with your requirements today.

Call: 631-777-8900 or Email sales@comtechpst.com or contact your local representative.