

X-Band Radar Solid State Power Amplifier

9.2 to 9.7 GHz, 4000 Watts

MODEL BHCDP928978-4000

Solid State Pulse 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
- Graceful Degradation
- Cold Start



Typical Performance Specifications

• Frequency Range:	9.2 to 9.7GHz
• Instantaneous Bandwidth:	500MHz
• Output Power:	4000W Peak
• Power Gain:	66dB (Nominal)
• Pulse Width:	40 μ s (Typical)
• Duty Cycle:	10% (Typical)
• PRF	400kHz (Typical)
• Pulse Droop:	<1.0dB (Typical)
• Pulse Rise & Fall Time:	<20ns (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	-120 dBc/Hz @ 2kHz
• Noise Output (RF Off)	-170dBm/Hz (Typical)

• DC Voltage Input:	48V @ 3000W (10% DF, 4kW)
• Operating Temperature:	0°C to +50°C baseplate
• Operating Humidity:	0 to 95% non-condensing
• Operating Shock & Vibration:	Per Mil-Std-810F
• Operating Altitude:	10,000 Ft.
• MTBF	> 27.5K Hours
• Control Interface:	Ethernet (RJ-45)
• Gate Control (On/Off):	BNC (TTL)
• RF Connectors:	
RF Input:	SMA (F)
RF Output:	WR-90
• Size:	19" x 17" x 7"
• Weight:	60 lbs.

COMTECH PST proudly introduces a new Gallium Nitride (GaN) amplifier for Ground or Surface X-Band radar applications. The AB linear design operates from 9.2 to 9.7 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. Comtech supports 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.