

Solid State Power Amplifier | X-Band Radar 9.8 – 10 GHz, 6000 Watts

Model BHCDP9881058-6000

Overview

Stellant PST proudly introduces a new Gallium Nitride (GaN) amplifier for Ground, Airborne or Surface Long Pulse X-Band radar applications. The AB linear design operates from 9.8 to 10.5 GHz frequency range and pulse widths from 0.1-1000usec,. This product is ideally suited for a TWT Replacement or new applications. The amplifier design features Self Protection for Load VSWR, Duty Factor, Pulse Width, and Temperature, as well as a graceful degradation in case of a RF power module failure. An MTBF increase as much as 10 times of a TWTA is predicted for significantly improved reliability and much lower maintenance costs. Stellant PST offers custom configurations and features as well as specific power levels up to 16Kw to meet your immediate or future needs.



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

Specifications

• Frequency Range:	9.8 to 10.5GHz	• AC Voltage Input:	208VAC 60Hz 3 Phase
• Instantaneous Bandwidth:	700MHz	• Operating Temperature:	-32°C to +55°C baseplate
• Output Power:	6000W Peak	• Operating Humidity:	0 to 95% non-condensing (option for 100% condensing)
• Power Gain:	68dB (Nominal)	• Operating Shock & Vibration:	Per Mil-Std-810F
• Pulse Width:	0.1-1000usec	• Operating Altitude:	10,000 Ft.
• Duty Cycle:	8% (Max)	• Control Interface:	RS-422
• Pulse Droop:	<1.5dB (Typical)	• Gate Trigger (On/Off):	Circular Mil Spec Connector
• Pulse Rise & Fall Time:	<30ns	• AC Power	Circular Mil Spec Connector
• Input VSWR:	<1.5:1	• RF Connectors	
• Output Load VSWR	<1.5:1	RF Input:	Type N (F)
• Load VSWR Protection:	∞VSWR (Circulator)	RF Output:	WR-90 Choke Flange with Pressure Window
• Output Fwd. RF Sample:	-68 dBc (Nominal)	• Size:	19" x 12.25" x 24"
• Harmonics/Spurs:	-60dBc	• Weight:	125 lbs.
• Phase Noise	-100 dBc/Hz@100Hz (Typ)		
• Noise Output (Gate Trigger Off):	-165 dBm/Hz (Typical)		

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