

# Solid State Pulsed Power Amplifier Module

## 3.1-3.5GHz, 900 Watts

### MODEL BMPC318358-900

#### Features:

- AB Linear 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
- Optional Digital Interface for Control & Status Monitoring
- Optional Phase and Amplitude Control
- Suitable Building Block for Phased Array Systems



## Performance Specifications

• Frequency Range:	3.1 to 3.5 GHz (2.9 to 3.5 GHz option)	• DC Voltage Input:	+50VDC ±1VDC
• Peak Output Power:	900W (+59.5dBm)	• DC Supply Current:	6 Amps nominal for 10% DF
• Power Gain:	37dB nominal @ 900W	• RF to DC Efficiency:	35% nominal
• Power Gain Variation:	±1 db @ 900W	• Operating Temperature:	0°C to +55°C baseplate
• Pulse Width:	2 to 200 μs max	• Operating Humidity:	0 to 95% non-condensing
• Duty Cycle:	10% max	• Operating Shock & Vibration:	Per MIL-STD-810F
• Pulse Droop:	<1.0dB	• Operating Altitude:	10,000 Ft.
• Pulse Rise & Fall Time:	<60ns typical	• Control Interface:	RS-485
• Input VSWR:	<1.5:1	• PA Enable/Disable:	RS-422 (<1μS)
• Output Load VSWR:	<2:1	• RF Connectors:	
• Load VSWR Protection:	∞VSWR	RF Input and Sample Ports:	SMA
• Input RF Sample:	-30dBc nominal	RF Output:	Type N
• Output Fwd. & Ref. Sample:	-50dBc nominal	• DC & Interface Connector:	Combo-D-Subminiature
• Harmonics:		• Size:	10.1" x 6.33" x 1.60"
2Fo:	<-40dBc	• Weight:	5 lbs.
3Fo:	<-50dBc		

COMTECH PST proudly introduces a new Gallium Nitride (GaN) amplifier for applications in the S-Band radar market. The AB linear design operates over the 3.1-3.5 GHz frequency band and is easily modified to also support 2.9-3.1 GHz radar applications. The amplifier design features include options for control of phase and amplitude to allow for integration into high power systems utilizing conventional binary or phased array combining approaches for power levels of up to 10kW.

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.