

# Solid State Power Amplifier Module

## 6 to 18GHz, 100 Watts

### MODEL BME69189-100

Coming in 2017

#### TWT/MPM Replacement Features:

- Ultra Wideband Operation
- Full Power across the Entire Bandwidth
- Rugged and Reliable
- Compact and Lightweight
- GaN Technology
- Low Harmonic Distortion
- Low Voltage Operation
- Soft Failure - Graceful Degradation



Conceptual SSPA Package

## Draft Performance Specifications

- Frequency Range: 6-18 GHz
- RF Power Output (P<sub>sat</sub>): 100 Watts Minimum
- Gain @ 100 watts: >46 dB
- RF input Overdrive: +10 dBm Max.
- Gain Flatness @ 100W (50Ω): ±5.0dB Max.
- Gain Flatness @ 5 dBm Input: ±2.0dB Max.
- Class of Operation: AB Linear
- Input VSWR: 2.0:1 Maximum
- Output Load VSWR: 2.0:1 Full Power
- Harmonics:
  - 2fo: <-12dBc
  - 3fo: <-22dBc
- Spurious: <-60 dBc
- Stability: Open/Short Tested
- Built in Test: Over Current Fault  
Over Temperature Fault

- DC/Control Interface: 7-pin Combo D
- PA Enable/Disable: 5.0V TTL (<1μS)
- DC Input: +28V (270V optional)
- DC Power @ Standby: <15W
- Efficiency (DC to RF): >10%
- RF Connectors:
  - RF Input: SMA Female field replaceable
  - RF Output: TNC Female field replaceable
- Operating Temperature: -40 to +55°C baseplate  
(External heatsink required)  
Shock/Vibration MIL-STD-810F
- Environmental: Shock/Vibration MIL-STD-810F
- Size: 8" x 5" x 2" (TBD)
- Weight: < 5.0 lbs. (TBD)
- Noise Power Output: -96 dBm/Hz Typical

COMTECH PST proudly introduces its latest addition to its GaN solid state power amplifier product line. Comtech's latest development continues to expand on its integrated RF GaN Power Amplifier designs by offering a small form factor (SFF) module. Consistent with its planned technology development roadmap, Comtech proudly introduces the latest in GaN-based 6-18GHz RF amplifier for **TWT/MPM Replacement**. This highly integrated design is ideal for use in communication, electronic warfare, and radar transmitter systems where space, cooling, and power are limited. Comtech PST is a leading supplier in custom built Solid State Amplifiers for the US and International markets.