

# Solid State Power Amplifier Module

## 6 to 18GHz, 20 Watts

### MODEL BME69189-20

#### Features:

- Ultra Wideband Operation
- High Efficiency
- Full Power across the Entire Bandwidth
- Rugged and Reliable
- Low Harmonic Distortion
- Compact and Lightweight
- GaN Technology



## Performance Specifications

- Frequency Range: 6-18 GHz
- RF Power Output (P3dB):  $\geq 20$  Watts Min (25 Watts typical)
- Gain @ 20 watts:  $> 41$  dB (45 dB typical)
- RF input Overdrive:  $+10$  dBm Max.
- Gain Flatness @ 20W (50 $\Omega$ ):  $\pm 4$  dB
- Class of Operation: AB Linear
- Input VSWR: 2.0:1 Maximum
- Output Load VSWR: 2.0:1 Full Power
- Harmonics:
  - 2fo:  $< -15$  dBc
  - 3fo:  $< -25$  dBc
- Spurious:  $< -60$  dBc
- Stability: Open/Short Tested
- Built in Test: Composite Fault Indication  
Over Current Fault  
Over Temperature Fault

- DC/Control Interface: 7-pin Combo D
- PA Enable/Disable: 5.0V TTL ( $< 2\mu$ s) ON ( $< 1\mu$ s) OFF
- DC Input:  $+28$ Vdc
- DC Power @ Standby:  $< 15$ W
- Efficiency (DC to RF):  $> 12\%$  (14% Typical)
- RF Connectors:
  - RF Input: SMA Female field replaceable
  - RF Output: SMA Female field replaceable
- Operating Temperature:  $-40$  to  $+55^\circ$ C Baseplate (external heatsink required)  
Shock/Vibration MIL-STD-810F
- Environmental: Shock/Vibration MIL-STD-810F
- Size: 6.56" x 3.50" x 0.84"
- Weight: 1.4 lbs. max.
- Noise Power Output:  $-105$  dBm/Hz

COMTECH PST proudly introduces a new high power density solid state RF module quickly becoming available in today's marketplace. Comtech's latest development continues to expand on its proven innovative integrated RF GaN Power Amplifier designs by further increasing the RF power density. Consistent with its planned technology development roadmap, Comtech proudly introduces the latest in GaN-based 6-18GHz RF amplifier. This highly integrated design is ideal for use in communication, electronic warfare, and radar transmitter systems where space, cooling, and power are limited.