

# Solid State Power Amplifier Module

## 2-6GHz 100 Watts

### MODEL BME2969-100

#### Features/Benefits:

- High Power Density – in Small Compact Package
- Ideally suited for Airborne/Surface/Mobile applications
- Wideband Operation – Multi-Complex Waveforms
- Built In Forward and Reverse Coupler
- Open/Short & High VSWR Load Monitoring/Protection
- Temperature and Current Monitoring/Protection
- Low Voltage Input Power 28V DC
- Ideal for TWT Replacement



## Performance Specifications

- Frequency Range: 2-6 GHz
- RF Power Output: 100 Watts Saturated Typical
- RF Input: -13 to 0 dBm Typical
- Gain: 59 dB  $\pm$  3dB Typical
- RF input Overdrive: 10 dBm Max.
- Modulation Format: AM/FM/CW/Digital/Pulse
- Input VSWR: 2.0:1 Max.
- Output into 2:1 VSWR: 85W Typical
- Harmonic (2<sup>nd</sup>/3<sup>rd</sup>): <-15/20 dBc (2Fo & 3Fo) Typical
- Spurious: <-60 dBc
- Open/Short: Fully Protected (turn down)
- Control Interface:
  - PA Enable (Blanking): RS-422 Diff or TTL Logic (3.3V)
  - Summary Fault Output: TTL Logic (Temp, Current)
  - Temperature Monitor: Analog Output (30 mV/°C)
  - Forward/Reverse Detector: Analog Output (0-5V)
  - Current Monitor: Analog Output (1V=10A)
  - PA Prime Power Status: TTL Logic

- DC Input: +28.5  $\pm$  0.1VDC
- DC Power @ 28V: 600W Max
- Efficiency (DC to RF): 20% Typical
- DC Bias: AB Linear
- Noise Figure: <18 dB
- Noise Output Power: -95 dBm/Hz max (No RF)
- RF Input/Output Connectors: SMA/TNC
- Control/DC Connector: D-Subminiature
- Operating Temperature: -40 to 65°C Baseplate (external heatsink required)
- Environmental: Surface/Airborne 95% Non-Condensing 40,000 FT
- Size: 7.75" x 3.5" x 1.75"
- Weight: ~3.0 lbs.

COMTECH PST proudly introduces its latest development for the TWT Replacement market covering the full 2000MHz to 6000MHz band providing 100 W in a small, compact, lightweight, ruggedized form factor, ideally suited for UAV, Airborne, Pods, Mobile, or Surface applications. This SSPA features built in protection and monitoring circuits, low voltage prime power input, high efficiency and reliable solid state technology. Units can be phase matched for phased array applications. Unit will self-protect under fault conditions and automatically return to normal operation when fault conditions are removed. The SSPA module withstands and operates reliably in rugged and hostile environments. Comtech is a trusted recognized leader for advanced amplifier development utilizing the latest in RF technologies for Commercial TWT replacement applications. Our highly integrated products are also used in communication, EW, and radar systems where reliability is mission critical.