

# Integrated Solid State Power Amplifier Module

## 800 to 1000MHz, 40 Watts

### MODEL BME8819-40

#### Features:

- All GaN RF Devices
- Rated Power Over the Entire Bandwidth
- Highest Efficiency Over the Entire Bandwidth
- Rugged and Reliable into High VSWR Loads
- Extreme Temperature Range Up to 95°C
- RF Output Sample Ports – Forward/Reflected
- Go/No Go BIT circuitry
- Suitable Building Block for Rack Mounted Systems



## Performance Specifications

• Frequency Range:	800 to 1000 MHz
• RF Power Output:	40 Watts Min.
• RF Input:	-4 dBm Typical
• RF input Overdrive:	20 dBm Max.
• DC Bias:	AB Linear
• Modulation Format:	Multi-tone, CW, AM, FM, Pulse
• Input VSWR:	2.0:1 Maximum
• Output Load VSWR:	2.0:1 Full Power Output Typical
• Harmonic (2 <sup>nd</sup> /3 <sup>rd</sup> ):	<-20 dBc Typical (-15 dBc Max)
• IM Products (4 Tones):	<-15 dBc Typical
• Spurious:	<-60 dBc
• Stability:	Open/Short all phase angles
• Control Interface:	
PA Enable (Blanking):	3.3V Logic <1us
Summary Fault Output:	3.3V Logic
	(Over Temperature, Over Current)
Temperature Monitor	(SPI)
User Calibration Memory	(SPI)

• DC Input:	27-29 VDC (other input Voltages are available)
• DC Power @ 28V:	100W Typical
• Efficiency (DC to RF):	>40% Typical
• Blanked Noise Power Output:	-150 dBm/Hz Typical
• RF Output Sample Ports:	
Forward:	-36 dB Typical
Reflected:	-15 dB Typical
• RF Connectors:	
RF Input and Output:	SMA
RF Sample Ports:	SMA
• Interface Control/DC Connector:	D-Subminiature
• Operating Temperature:	-40 to 85°C Baseplate (external heatsink required)
• Environmental:	Shock/Vibration MIL-STD-810F
• Size:	5.0" x 3.4" x 1.65"
• Weight:	<2.0 lbs.

COMTECH PST proudly introduces its latest market basket of Integrated High Power Amplifier Modules, further expanding its proven integrated RF GaN Power Amplifier module product line. These innovative designs incorporate RF output sample ports and Go/No Go fault detection circuitry that are ideally suited for applications requiring high RF power density, improved efficiency, high VSWR tolerance. Consistent with its planned technology development roadmap, Comtech is a stalwart leader with the latest performance based GaN RF devices and advanced amplifier development. These highly integrated designs are preferred by its customers for use in communication, electronic warfare, and radar transmitter systems where space, cooling, and power are limited. Applications include ground (dismounted, mobile or fixed), surface, and airborne platforms.