

## DESCRIPTION

This class AB GaN module is designed for both military and commercial applications. It is capable of supporting any signal type and modulation format, including but not limited to 3-4G telecom, WLAN, OFDM, DVB, and CW/AM/FM. The latest device technologies and design methods are employed to offer high power density, efficiency, and linearity in a small, lightweight package.



## FEATURES

Over / Under / Reverse Voltage Protection  
Temperature Output

High Speed On/Off Control  
Optional Heatsink

Specifications subject to change without notice. Typical performance at 12.0VDC at 25°C in a 50Ω system

| RF / ELECTRICAL        |      |      |      |      |
|------------------------|------|------|------|------|
| PARAMETER              | MIN  | TYP  | MAX  | UNIT |
| Operating Frequency    | 500  |      | 2500 | MHz  |
| PSat Power Output      | 40.0 | 40.0 |      | dBm  |
| Gain                   | 39.0 | 40.0 | v    | dB   |
| Gain Flatness          |      | 1.0  | 2.0  | dB   |
| Linear Power           |      | 0.0  |      | dBm  |
| Input Return Loss      | -11  | 0    |      | dB   |
| Operating Voltage      | 9.0  | 12.0 | 36.0 | VDC  |
| Current Draw           |      | 3.0  |      | A    |
| Quiescent Current Draw |      |      |      | A    |
| Switching Time         |      |      | 1.0  | μs   |

| MECHANICAL                     |                                                    |      |
|--------------------------------|----------------------------------------------------|------|
| PARAMETER                      | VALUE                                              | UNIT |
| Dimensions (L x W x H)         | 3.25x2x0.993                                       | in   |
| RF Connectors (Input / Output) | SMA-F / SMA-F                                      | --   |
| DC / Control Connector         | Circular Locking                                   | --   |
| Cooling                        | Baseplate Conduction - Optional Heatsink Available | --   |
| Mounting                       | 4-40 Thru Holes                                    | --   |
| Weight                         | 6                                                  | oz   |
| Weight with Heatsink           | 16                                                 | Oz   |

**ENVIRONMENTAL / PROTECTIONS**

| PARAMETER                        | MIN                            | MAX | UNIT |
|----------------------------------|--------------------------------|-----|------|
| Operating Temp. (Housing Temp.)  | -40                            | 85  | °C   |
| Storage Temp Range               | -60                            | 100 | °C   |
| Humidity Range                   | 0-100                          |     | %    |
| Altitude                         | 0-30,000                       |     | ft.  |
| Shock / Vibration                | MIL-STD-810 and equivalents    |     | --   |
| Max RF Input                     | 3.0                            |     | dBm  |
| Load VSWR @ P1dB                 | Open / Short Output Protection |     | --   |
| PA Baseplate Shutoff Temperature | 85                             |     | °C   |

**DC / CONTROL PINS**

| PIN LABEL | NAME       | DESCRIPTION                                     |
|-----------|------------|-------------------------------------------------|
| 1         | GND        | Ground                                          |
| 2         | TEMP       | Temp Monitor: Temp in DegC = (Vout - 0.5V) / 10 |
| 3         | Amp Enable | TTL On/Off Low=Enable, High=Disable             |
| 4         | +VDC       | Supply Voltage - Range Specified in Datasheet   |