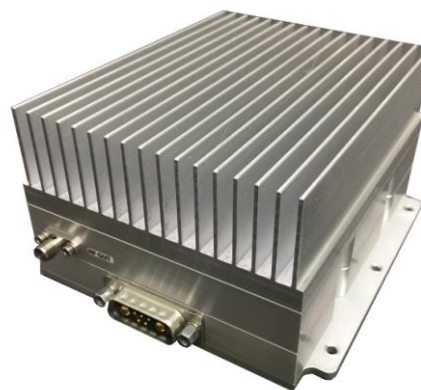


DESCRIPTION

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
Over-Temperature Protection

Temp. Monitor Output
Optional Heatsink

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

| RF / ELECTRICAL | | | | |
|------------------------|-------|-------|------|-----------------|
| PARAMETER | MIN | TYP. | MAX | UNIT |
| Operating Frequency | 700 | | 6000 | MHz |
| PSat Power Output | +40.0 | +45.0 | | dBm |
| Gain | | 35.0 | | dB |
| Gain Flatness | | 3.0 | 4.0 | dB ¹ |
| Input Return Loss | | -16 | | dB |
| Operating Voltage | +10 | | +33 | VDC |
| Current Draw | | 3.5 | 4.1 | A |
| Quiescent Current Draw | | 2.8 | | A |
| Switching Time | | 1.0 | 2.0 | uS |

1 – Gain flatness recorded represents a peak-peak measurement across the **entire operating band**. Gain flatness is typically much lower across significant portions of this band. Consult the gain response plots for details if available.

MECHANICAL

| PARAMETER | VALUE | UNIT |
|--------------------------------|----------------------------------------------------|------|
| Dimensions (L x W x H) | 4.9 x 4.7 x 2.08 | in |
| RF Connectors (Input / Output) | SMA-F / SMA-F | -- |
| DC / Control Connector | 7W2 Male | -- |
| Cooling | Baseplate Conduction - Optional Heatsink Available | -- |
| Mounting | 4-40 Thru Holes | -- |
| Weight | 19 | oz. |
| Weight with Heatsink | 24 | oz. |

ENVIRONMENTAL / PROTECTIONS

| PARAMETER | MIN | MAX | UNIT |
|----------------------------------|-----------------------------|-----|------|
| Operating Temp. (Housing Temp.) | -40 | +85 | °C |
| Humidity Range | 0-100 | | % |
| Altitude | 0-30,000 | | ft. |
| Shock / Vibration | MIL-STD-810 and equivalents | | -- |
| Max RF Input | +13 | | dBm |
| PA Baseplate Shutoff Temperature | + 85 | | °C |

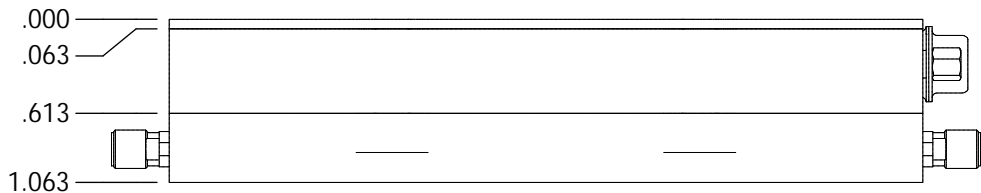
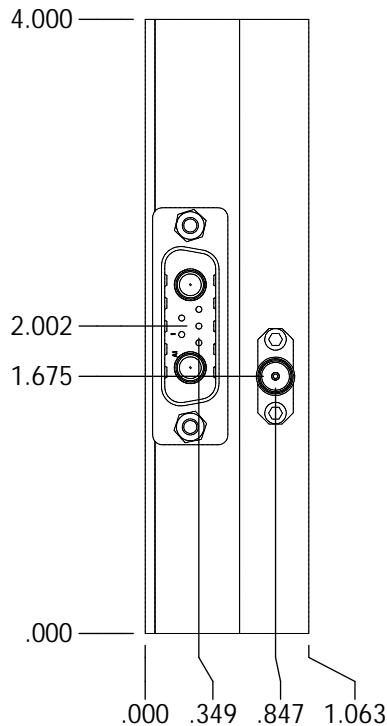
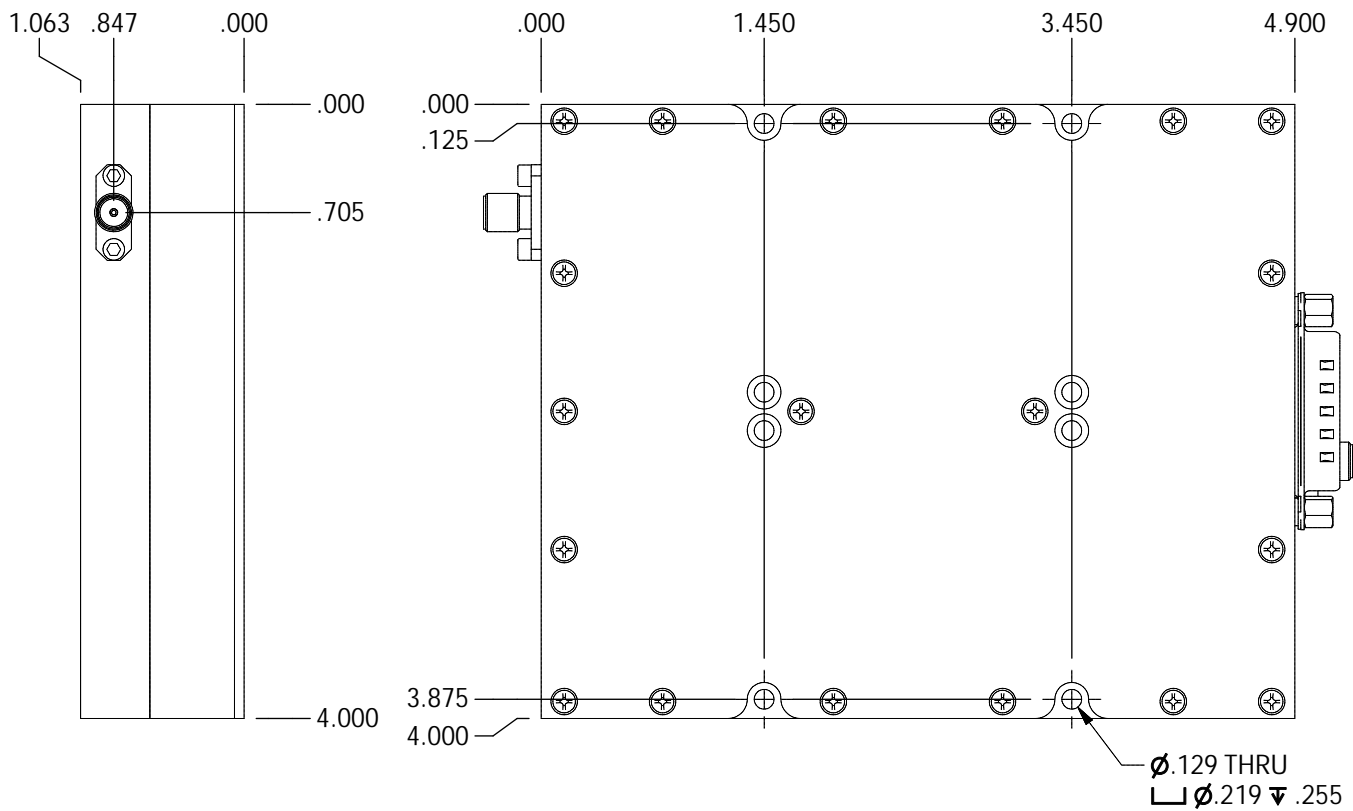
INPUT/OUTPUT PINS

| AMPLIFIER CONNECTOR TYPE: | | 7W2 MALE |
|----------------------------------|------------|----------------------------------------------------|
| TRIAD CABLE PART NUMBER: | | CBL2 |
| PIN NUMBER | LABEL | DESCRIPTION |
| A1 | GND | Ground |
| 1 | TEMP | Temp Monitor: Temp in DegC = (Vout - 0.5V) *100 |
| 2 | Amp Enable | TTL Hi or No Connection = Enable, TTL Lo = Disable |
| 3 | NC | Not Connected |
| 4 | GND | Ground |
| 5 | NC | Not Connected |
| A2 | +VDC | Supply Voltage - Range Specified in Datasheet |

Configuration Options

| Model Number | Description |
|---------------|------------------------------------------------------------------------|
| TA1186Q | No Heat Sink Included |
| TA1186Q – HS | Standard Heat Sink |
| TA1186Q – HSF | Heat Sink with Integrated Cooling Fan |
| TA1186Q – HSX | Custom Heat Sink Configuration |
| TA1186Q – DOX | Custom Amplifier Configuration (issued by Triad upon customer request) |

| REVISIONS | | | |
|-----------|-----------------|---------|----------|
| REV | DESCRIPTION | DATE | APPROVED |
| 0 | INITIAL RELEASE | 4/15/15 | DH |
| 1 | E18336 | 6/11/18 | SC |



| | | |
|--------------|------|-----------|
| DRAWN | Dean | 4/24/2015 |
| DESIGNED | Dean | 3/24/2015 |
| CHECKED | | |
| ENG APPROVED | | |
| MFG APPROVED | | |

DIMENSIONS ARE IN INCHES
UNLESS SPECIFIED OTHERWISE
TOLERANCES
DECIMALS FRACTIONS ANGLES
XX ±.01 ± 1/32 ± 2°
XXX ±.005

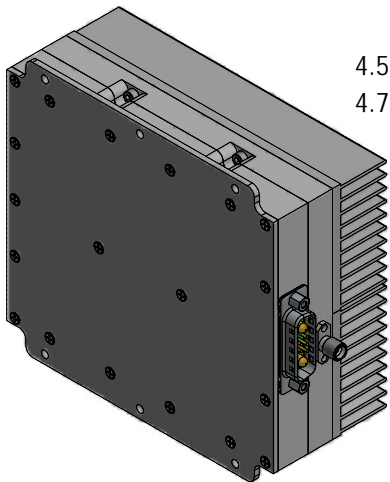
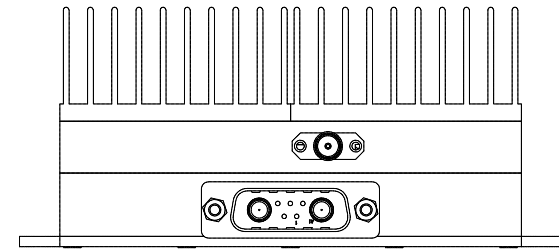
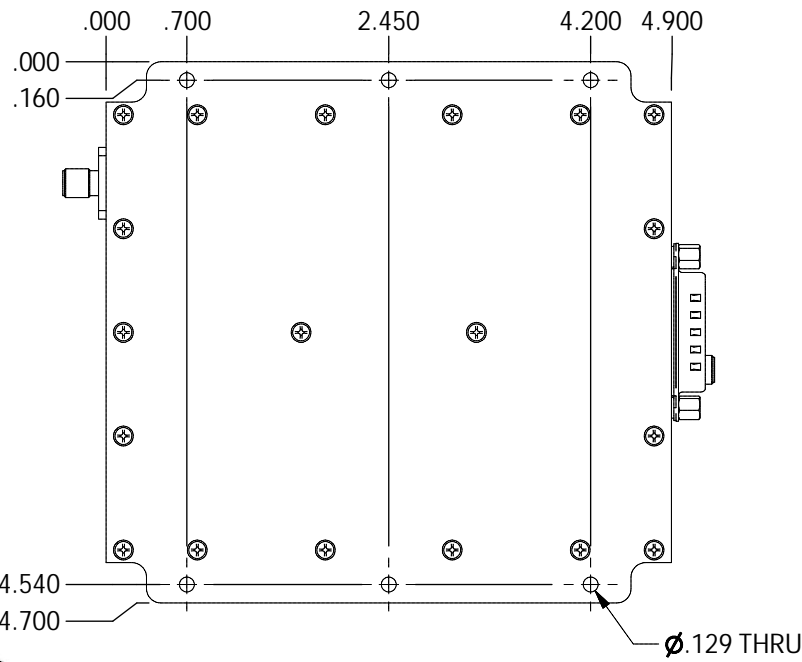
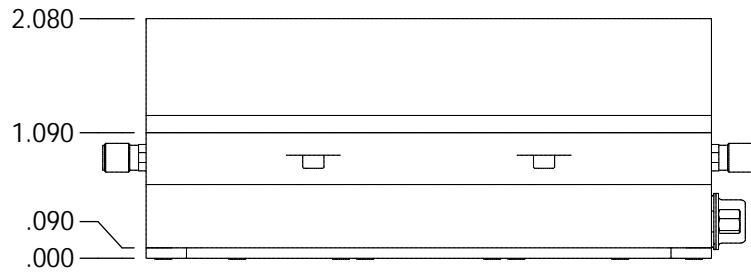


11 HARTS LANE SUITE 1
EAST BRUNSWICK, NJ 08816
855- 558- 1001

HOUSING OUTLINE DRAWING 139

| SIZE | DWG NO. | REV |
|-------------|-----------------|--------------|
| A | OL_139 | 1 |
| SCALE: NONE | CAGE CODE 67DZ3 | SHEET 1 OF 2 |

HEATSINK



| | | |
|--------------|------|-----------|
| DRAWN | Dean | 4/24/2015 |
| DESIGNED | Dean | 3/24/2015 |
| CHECKED | | |
| ENG APPROVED | | |
| MFG APPROVED | | |



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HOUSING OUTLINE DRAWING 139

DIMENSIONS ARE IN INCHES
UNLESS SPECIFIED OTHERWISE
TOLERANCES
DECIMALS FRACTIONS ANGLES
XX ±.01 ± 1/32 ± 2°
.XXX ±.005

| | | |
|-------------|-----------------|--------------|
| SIZE | DWG NO. | REV |
| A | OL_139 | 1 |
| SCALE: NONE | CAGE CODE 67DZ3 | SHEET 2 OF 2 |