

## DESCRIPTION

This class A GaAs 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

Forward Power Measurement

Reflected Power Measurement

High Speed On/Off Control

Temperature Output

Optional Heatsink

Specifications subject to change without notice. Typical performance at +12VDC at +25°C in a 50Ω system

| RF / ELECTRICAL              |                       |       |      |      |
|------------------------------|-----------------------|-------|------|------|
| PARAMETER                    | MIN                   | TYP   | MAX  | UNIT |
| Operating Frequency          | 3400                  |       | 3600 | MHz  |
| P1dB Power Output            | +43.0                 | +44.0 |      | dBm  |
| Gain                         | 43.0                  | 44.0  |      | dB   |
| Gain Flatness                |                       | 1.0   | 1.5  | dB   |
| Linear Power                 |                       | +37.0 |      | dBm  |
| Linear Power Test Conditions | W-CDMA @ -55 dBc ACPR |       |      | --   |
| Input Return Loss            | -14                   | -16   |      | dB   |
| Operating Voltage            | +11                   |       | +13  | VDC  |
| Current Draw                 |                       | 8.0   | 9.0  | A    |
| Quiescent Current Draw       |                       | 8.0   |      | A    |
| Switching Time               |                       | 1.0   | 2.0  | uS   |

| MECHANICAL                     |                                                    |      |
|--------------------------------|----------------------------------------------------|------|
| PARAMETER                      | VALUE                                              | UNIT |
| Dimensions (L x W x H)         | 5 x 2.5 x 0.553                                    | 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                         | 7                                                  | oz   |
| Weight with heatsink           | 17                                                 | 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 | +90                            |      | °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                 | FWD        | Forward Power Detection                         |
| 5                 | REV        | Reverse Power Detection                         |
| 6                 | +VDC       | Supply Voltage - Range Specified in Datasheet   |

A

B

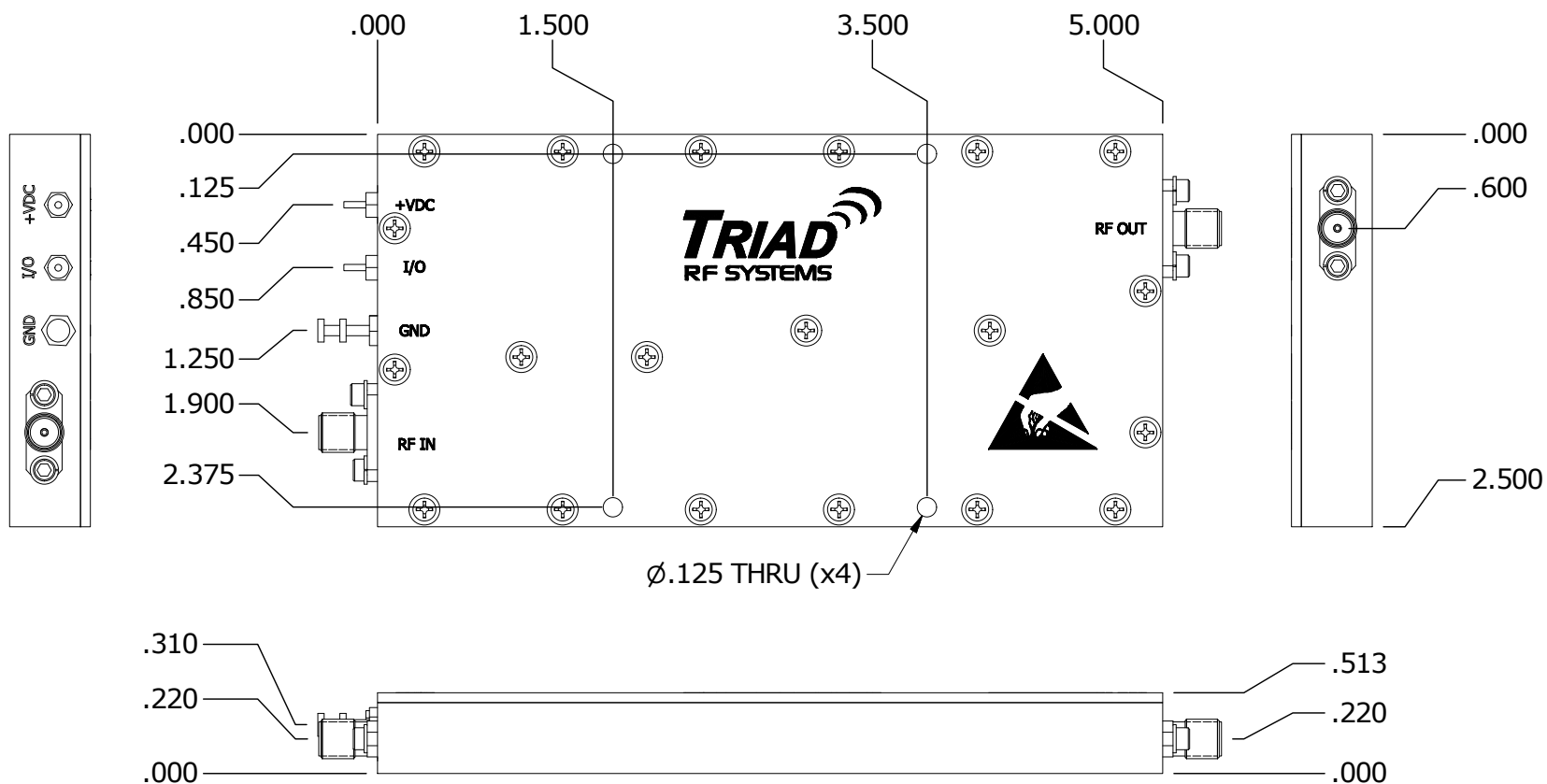
C

D

E

## REVISIONS

| REV | DESCRIPTION     | DATE       | APPROVED |
|-----|-----------------|------------|----------|
| 0   | INITIAL RELEASE | 07/25/2014 | AHA      |



|               |     |           |
|---------------|-----|-----------|
| DRAWN         | AHA | 7/19/2014 |
| DESIGNED      | DMC | 5/11/2012 |
| CHECKED       | BG  | 6/17/2014 |
| ENG. APPROVED |     |           |
| MFG. APPROVED |     |           |

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



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## Housing Outline Drawing 101

|             |                 |              |
|-------------|-----------------|--------------|
| SIZE<br>A   | DWG/PART NO.    | REV<br>0     |
| SCALE: NONE | CAGE CODE 67DZ3 | SHEET 1 OF 3 |

A

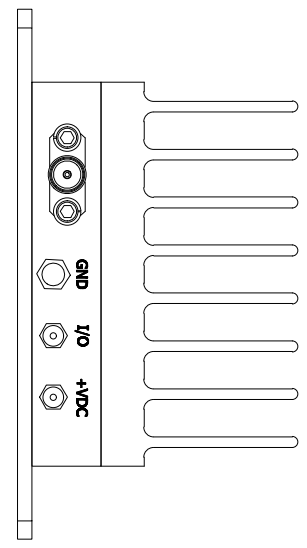
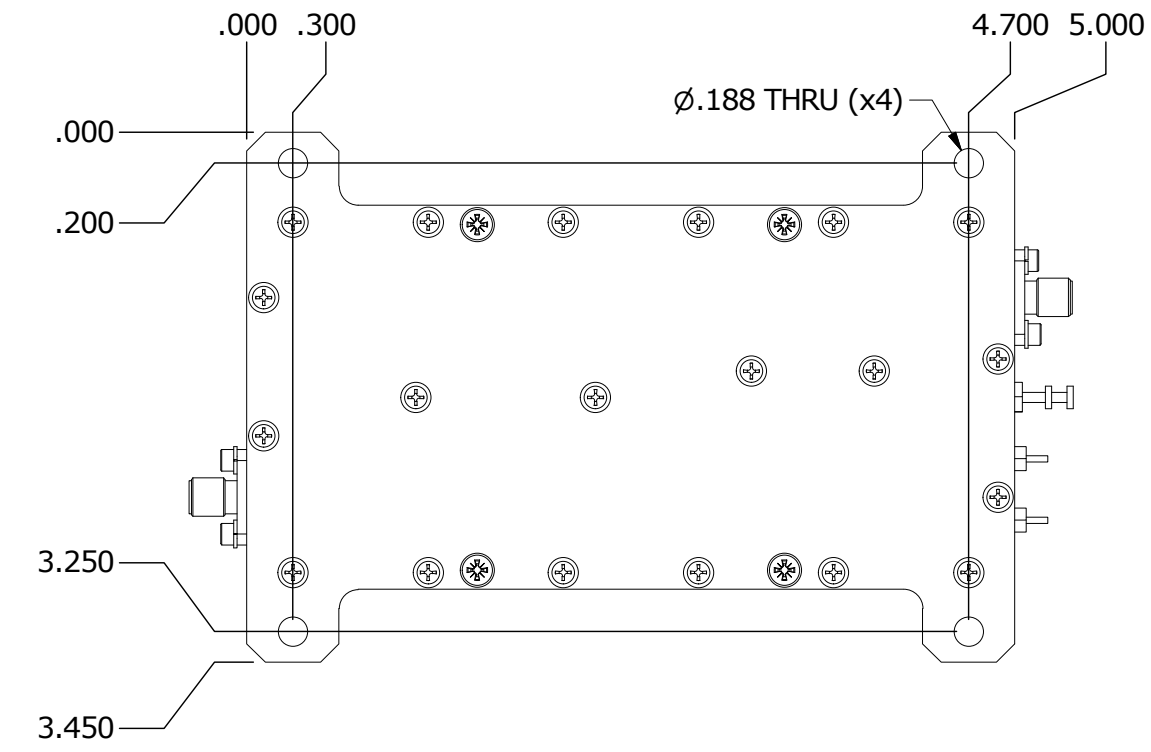
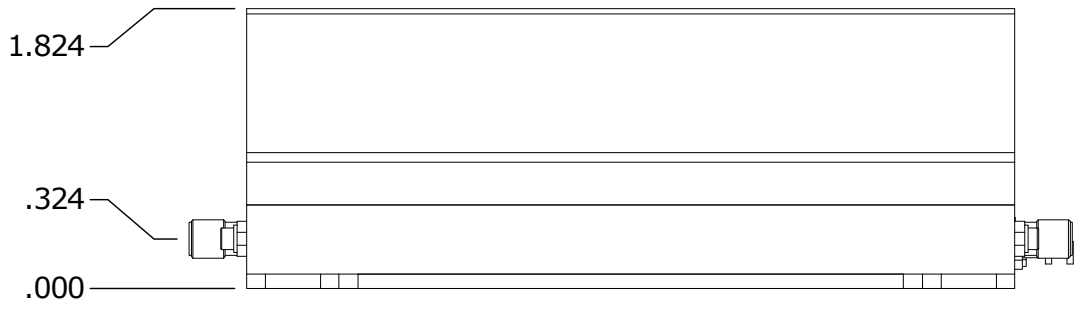
B

C

D

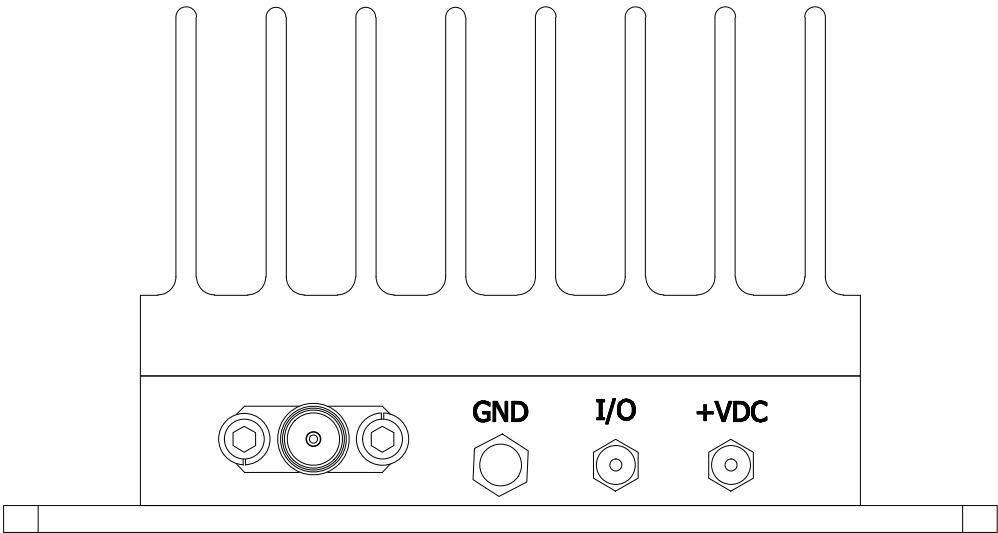
E

A B C D E



A B C D E

|               |     |           |                             |              |       |              |
|---------------|-----|-----------|-----------------------------|--------------|-------|--------------|
| DRAWN         | AHA | 7/19/2014 | Housing Outline Drawing 101 |              |       |              |
| DESIGNED      | DMC | 5/11/2012 |                             |              |       |              |
| CHECKED       | BG  | 6/17/2014 | SIZE<br>A                   | DWG/PART NO. |       | REV<br>0     |
| ENG. APPROVED |     |           |                             |              |       |              |
| MFG. APPROVED |     |           | SCALE: NONE                 | CAGE CODE    | 67DZ3 | SHEET 2 OF 3 |



| CONNECTOR PINOUT |          |                                                               |
|------------------|----------|---------------------------------------------------------------|
| PIN              | FUNCTION | NOTES                                                         |
| 1                | GND      | RETURN FOR ALL SIGNAL AND CTRL PINS                           |
| 2                | +VDC     | SUPPLY VOLTAGE - RANGE SPECIFIED IN DATASHEET                 |
| 3                | I/O      | TTL ON/OFF CONTROL. HIGH = ON, OFF = OFF. NO CONNECTION IS ON |

NOTES:  
1. VIEW FACING CONNECTOR INTERFACE (AMP SIDE)

|               |     |           |                             |                 |              |
|---------------|-----|-----------|-----------------------------|-----------------|--------------|
| DRAWN         | AHA | 7/19/2014 | Housing Outline Drawing 101 |                 |              |
| DESIGNED      | DMC | 5/11/2012 |                             |                 |              |
| CHECKED       | BG  | 6/17/2014 | SIZE<br>A                   | DWG/PART NO.    | REV<br>0     |
| ENG. APPROVED |     |           |                             |                 |              |
| MFG. APPROVED |     |           | SCALE: NONE                 | CAGE CODE 67DZ3 | SHEET 3 OF 3 |