

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

Optional Heatsink

High Speed On/Off Control

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

| RF / ELECTRICAL | | | | |
|------------------------|------|-------|------|-----------------|
| PARAMETER | MIN | TYP. | MAX | UNIT |
| Operating Frequency | 3100 | | 3500 | MHz |
| P1dB Power Output | | +37.0 | | dBm |
| Gain | 7.0 | 8.0 | | dB |
| Gain Flatness | | 0.5 | 1.0 | dB ¹ |
| Input Return Loss | -12 | -14 | | dB |
| Operating Voltage | +11 | +12 | +13 | VDC |
| Current Draw | | 1.4 | | A |
| Quiescent Current Draw | | 0.03 | | 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) | 3.75 x 1.9 x 0.493 | in |
| RF Connectors (Input / Output) | SMA-F / SMA-F | -- |
| DC / Control Connector | 9 Pin Micro-D | -- |
| Cooling | Baseplate Conduction - Optional Heatsink Available | -- |
| Mounting | 6-32 Threaded Holes | -- |
| Weight | 4 | oz. |
| Weight with Heatsink | 14 | 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 | +32 | | dBm |
| PA Baseplate Shutoff Temperature | + 90 | | °C |

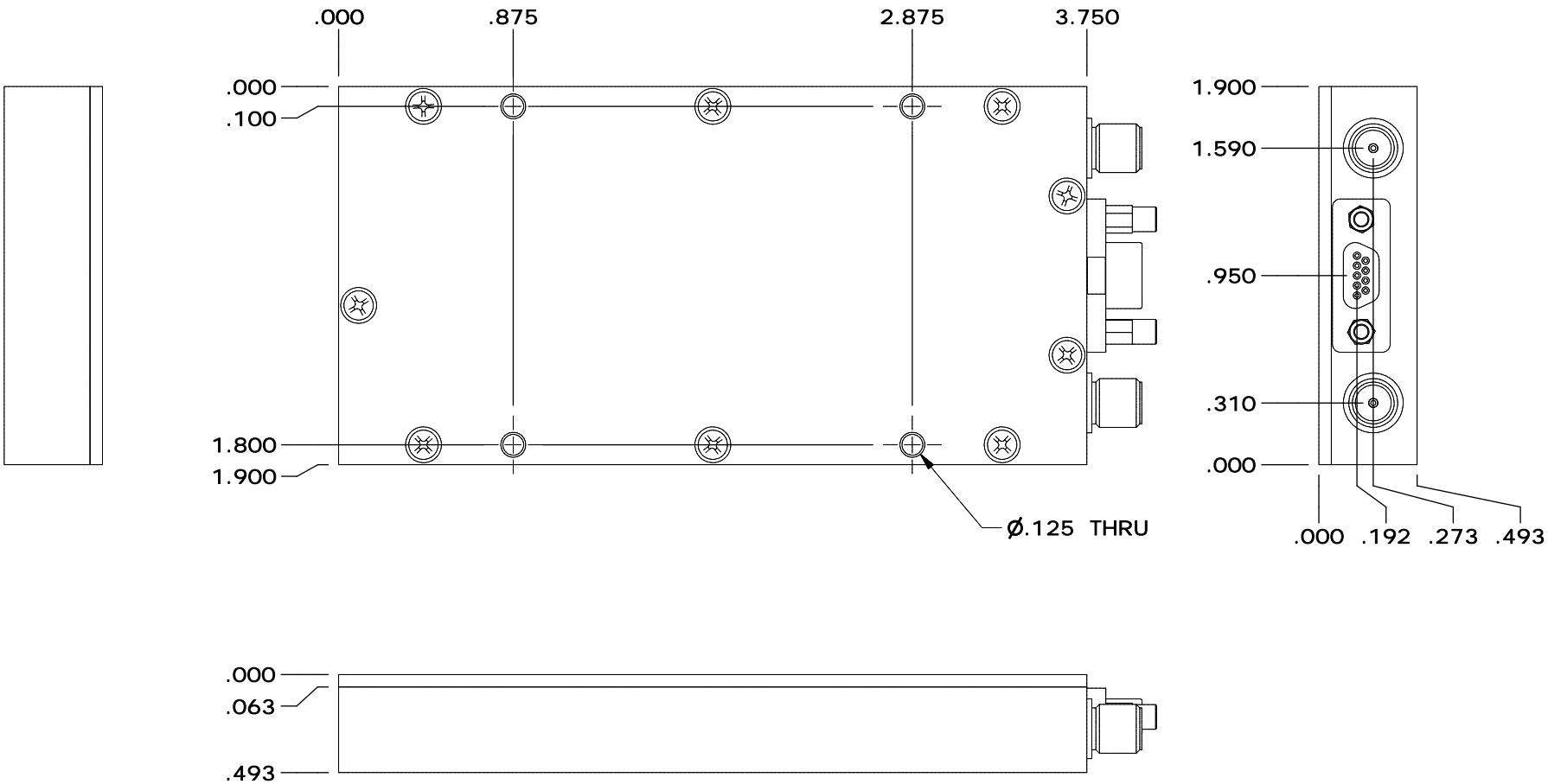
INPUT/OUTPUT PINS

| AMPLIFIER CONNECTOR TYPE: | | 9 PIN MICRO-D FEMALE |
|----------------------------------|------------|--|
| TRIAD CABLE PART NUMBER: | | CBL14 |
| PIN NUMBER | LABEL | DESCRIPTION |
| 1 | GND | Ground |
| 2 | GND | Ground |
| 3 | +VDC | Supply Voltage - Range Specified in Datasheet |
| 4 | +VDC | Supply Voltage - Range Specified in Datasheet |
| 5 | Amp Enable | TTL Hi or No Connection = Enable, TTL Lo = Disable |
| 6 | GND | Ground |
| 7 | +VDC | Supply Voltage - Range Specified in Datasheet |
| 8 | +VDC | Supply Voltage - Range Specified in Datasheet |
| 9 | GND | Ground |

Configuration Options

| Model Number | Description |
|--------------|--|
| TA1151 | No Heat Sink Included |
| TA1151 – HS | Standard Heat Sink |
| TA1151 – HSF | Heat Sink with Integrated Cooling Fan |
| TA1151 – HSX | Custom Heat Sink Configuration |
| TA1151 – DOX | Custom Amplifier Configuration (issued by Triad upon customer request) |

| REVISIONS | | | |
|-----------|-----------------|--------|----------|
| REV | DESCRIPTION | DATE | APPROVED |
| 0 | INITIAL RELEASE | 6/6/18 | SC |



| | | |
|--------------|--------|-----------|
| DRAWN | Keenan | 6/6/2018 |
| DESIGNED | DMC | 9/27/2012 |
| CHECKED | | |
| ENG APPROVED | | |
| MFG APPROVED | | |



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HOUSING OUTLINE DRAWING 116

| | | | | |
|--|-----------|--------|--------------|-----------------|
| DIMENSIONS ARE IN INCHES UNLESS SPECIFIED OTHERWISE TOLERANCES | | SIZE | DWG NO. | REV |
| DECIMALS | FRACTIONS | ANGLES | A | 0 |
| XX ±.01 | ± 1/32 | ± 2° | OL_116 | |
| .XXX ±.005 | | | SCALE: NONE | CAGE CODE 67DZ3 |
| | | | SHEET 1 OF 1 | |