

## 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

Reflected Power Measurement

Temperature Output

Forward Power Measurement

High Speed On/Off Control

Optional Heatsink

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

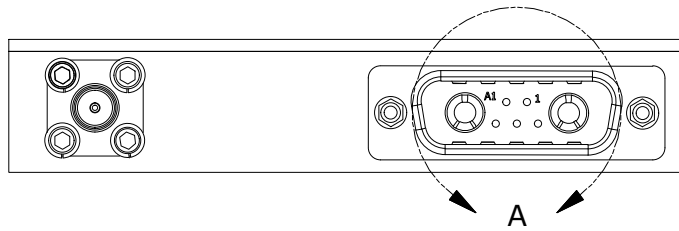
| RF / ELECTRICAL              |                       |       |      |      |
|------------------------------|-----------------------|-------|------|------|
| PARAMETER                    | MIN                   | TYP   | MAX  | UNIT |
| Operating Frequency          | 1700                  |       | 2000 | MHz  |
| P1dB Power Output            | +43.0                 | +44.0 |      | dBm  |
| Gain                         | 44.0                  | 45.0  |      | dB   |
| Gain Flatness                |                       | 1.5   | 2.0  | dB   |
| Linear Power                 |                       | +37.0 |      | dBm  |
| Linear Power Test Conditions | W-CDMA @ -55 dBc ACPR |       |      | --   |
| Input Return Loss            | -16                   | -18   |      | dB   |
| Operating Voltage            | +11                   |       | +13  | VDC  |
| Current Draw                 |                       | 11.0  | 12.0 | A    |
| Quiescent Current Draw       |                       | 12.0  |      | A    |
| Switching Time               |                       | 1.0   | 2.0  | uS   |

| MECHANICAL                     |                                                    |      |
|--------------------------------|----------------------------------------------------|------|
| PARAMETER                      | VALUE                                              | UNIT |
| Dimensions (L x W x H)         | 6 x 3.5 x 0.693                                    | 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                         | 14                                                 | oz   |
| Weight with heatsink           | 24                                                 | oz   |

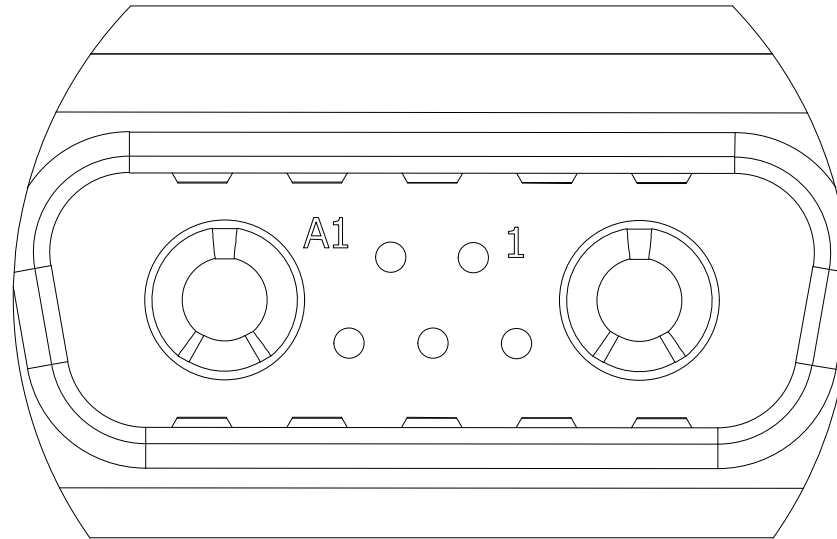
| ENVIRONMENTAL / PROTECTIONS      |                                |      |      |
|----------------------------------|--------------------------------|------|------|
| PARAMETER                        | MIN                            | MAX  | UNIT |
| Operating Temp. (Housing Temp.)  | -40                            | +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                     | +2.0                           |      | dBm  |
| Load VSWR @ P1dB                 | Open / Short Output Protection |      | --   |
| PA Baseplate Shutoff Temperature | +90                            |      | °C   |

| DC / CONTROL PINS |            |                                                 |
|-------------------|------------|-------------------------------------------------|
| PIN LABEL         | NAME       | DESCRIPTION                                     |
| A1                | GND        | Ground                                          |
| 1                 | TEMP       | Temp Monitor: Temp in DegC = (Vout - 0.5V) / 10 |
| 2                 | Amp Enable | TTL On/Off Low=Enable, High=Disable             |
| 3                 | NC         | Not Connected                                   |
| 4                 | GND        | Ground                                          |
| 5                 | NC         | Not Connected                                   |
| A2                | +VDC       | Supply Voltage - Range Specified in Datasheet   |





DETAIL A



CONNECTOR PINOUT

| PIN | FUNCTION   | NOTES                                           |
|-----|------------|-------------------------------------------------|
| 1   | TEMP       | Temp Monitor: Temp in DegC = (Vout - 0.5V) / 10 |
| 2   | AMP ENABLE | TTL On/Off Low=Enable, High=Disable             |
| 3   | NC         | Not Connected                                   |
| 4   | GND        | Ground                                          |
| 5   | FWD        | Forward Power Measurement                       |
| A1  | GND        | Ground                                          |
| A2  | +VDC       | Supply Voltage - Range Specified in Datasheet   |

NOTES:

1. P/N OF CONNECTOR ON AMPLIFIER: CONNEC 3007W2PCM99A10X
2. EXACT PINOUT MAY VARY WITH MODEL AND CUSTOMER SPECIFICATIONS

|               |     |           |                     |                 |  |              |          |
|---------------|-----|-----------|---------------------|-----------------|--|--------------|----------|
| DRAWN         | AHA | 7/9/2014  | Housing Outline 107 |                 |  |              |          |
| DESIGNED      | DMC | 10/6/2013 |                     |                 |  |              |          |
| CHECKED       | BG  | 7/9/2014  | SIZE<br>A           | DWG NO.         |  |              | REV<br>0 |
| ENG. APPROVED |     |           |                     |                 |  |              |          |
| MFG. APPROVED |     |           | SCALE: NONE         | CAGE CODE 67DZ3 |  | SHEET 2 OF 3 |          |

A

B

C

D

E

1

1

2

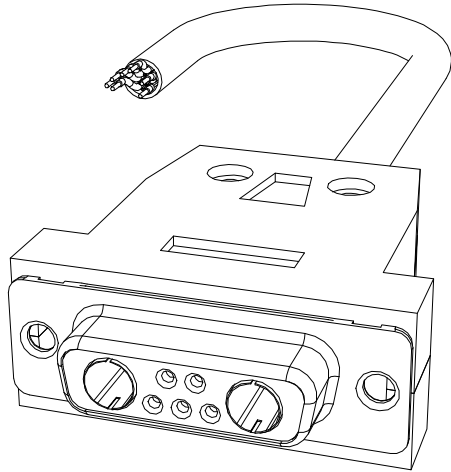
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3

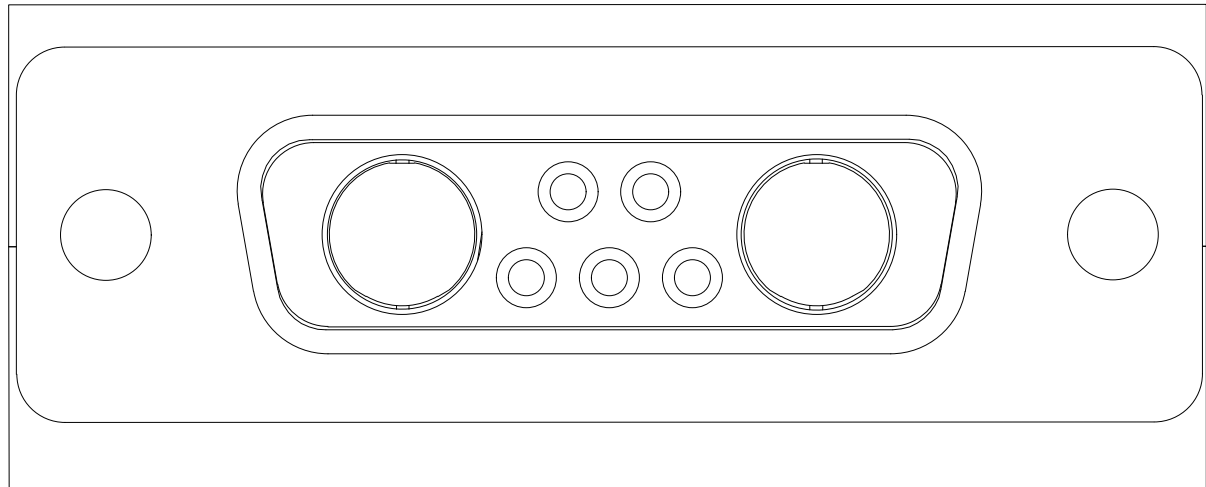
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4

4



MATE CABLE



3007W2SCM99A10X

## NOTES:

1. P/N OF MATING CONNECTOR REQUIRED: CONNEC 3007W2SCM99A10X OR EQUIVALENT
2. P/N OF BACKSHELL/HOOD: EMERSON NETWORK POWER CON AIM - CAIMBRIDGE 40-9715H
3. TRIAD CABLE P/N: C12080301
4. WIRE DIAMETER: 24 AWG

|               |     |          |                     |                 |  |              |          |
|---------------|-----|----------|---------------------|-----------------|--|--------------|----------|
| DRAWN         | AHA | 7/9/2014 | Housing Outline 107 |                 |  |              |          |
| DESIGNED      | --- | 6/4/2014 |                     |                 |  |              |          |
| CHECKED       | BG  | 7/9/2014 | SIZE<br>A           | DWG NO.         |  |              | REV<br>0 |
| ENG. APPROVED |     |          |                     |                 |  |              |          |
| MFG. APPROVED |     |          | SCALE: NONE         | CAGE CODE 67DZ3 |  | SHEET 3 OF 3 |          |

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