

**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 +28VDC +25°C, and in a 50Ω system.

RF / ELECTRICAL				
PARAMETER	MIN	TYP.	MAX	UNIT
Operating Frequency	20		1000	MHz
PSat Power Output	+44.0	+46.0		dBm
Gain	47.0	50.0		dB
Gain Flatness		3.0		dB <sup>1</sup>
Input Return Loss	-12	-15		dB
Operating Voltage	+27	+28	+30	VDC
Current Draw		2.0	2.25	A
Quiescent Current Draw		2.0		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 x 2.3 x 0.85	in
RF Connectors (Input / Output)	SMA-F / SMA-F	--
DC / Control Connector	10-Pin Rectangular	--
Cooling	Baseplate Conduction - Optional Heatsink Available	--
Mounting	4-40 Thru Holes	--
Weight	7	oz.
Weight with Heatsink	13	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	+1		dBm
PA Baseplate Shutoff Temperature	+ 90		°C

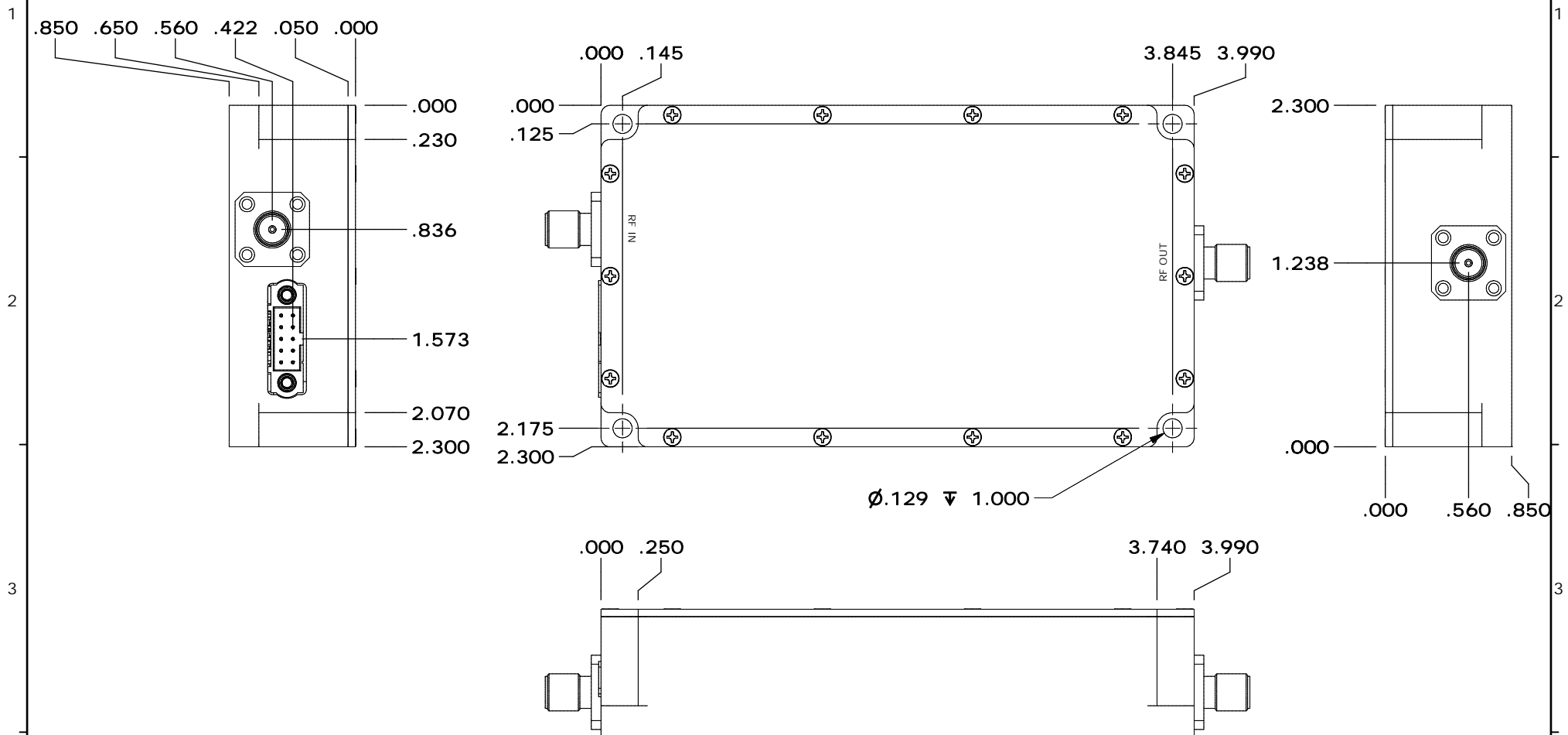
## INPUT/OUTPUT PINS

<b>AMPLIFIER CONNECTOR TYPE:</b>		10 PIN RECTANGULAR
<b>TRIAD CABLE PART NUMBER:</b>		CBL11
PIN NUMBER	LABEL	DESCRIPTION
1,2,3	+VDC	Supply Voltage - Range Specified in Datasheet
4,5,6	GND	Supply Voltage Return
7	Amp Enable	TTL Hi or No Connection = Enable, TTL Lo = Disable
8	TEMP	Temp Monitor: Temp in DegC = (Vout - 0.5V) *100
9	N/C	No Connection
10	SGND	Signal Ground

## Configuration Options

Model Number	Description
TA1056	No Heat Sink Included
TA1056 – HS	Standard Heat Sink
TA1056 – HSF	Heat Sink with Integrated Cooling Fan
TA1056 – HSX	Custom Heat Sink Configuration
TA1056 – DOX	Custom Amplifier Configuration (issued by Triad upon customer request)

REVISIONS			
REV	DESCRIPTION	DATE	APPROVED
0	INITIAL RELEASE	12/20/17	CD
1	E18322	6/1/18	SC



DRAWN	CFD	12/20/2017
DESIGNED	Dean	12/9/2017
CHECKED		
ENG APPROVED		
MFG APPROVED		



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EAST BRUNSWICK, NJ 08816  
855- 558- 1001

HOUSING OUTLINE DRAWING 185

DIMENSIONS ARE IN INCHES UNLESS SPECIFIED OTHERWISE TOLERANCES		SIZE	DWG NO.	REV
DECIMALS	FRACTIONS	ANGLES	A	1
XX ±.01	± 1/32	± 2°	OL_185	
.XXX ±.005			SCALE: NONE	CAGE CODE 67DZ3
			SHEET 1 OF 2	

A  
2.049

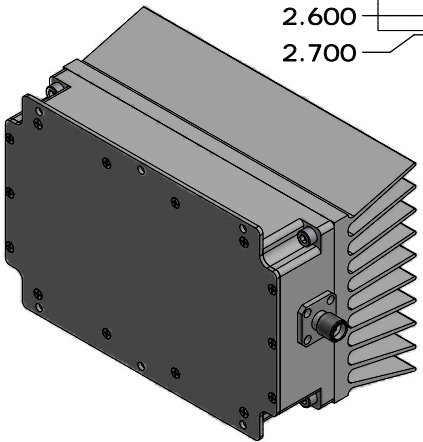
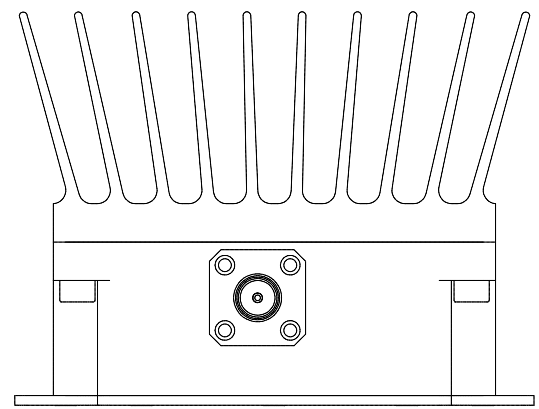
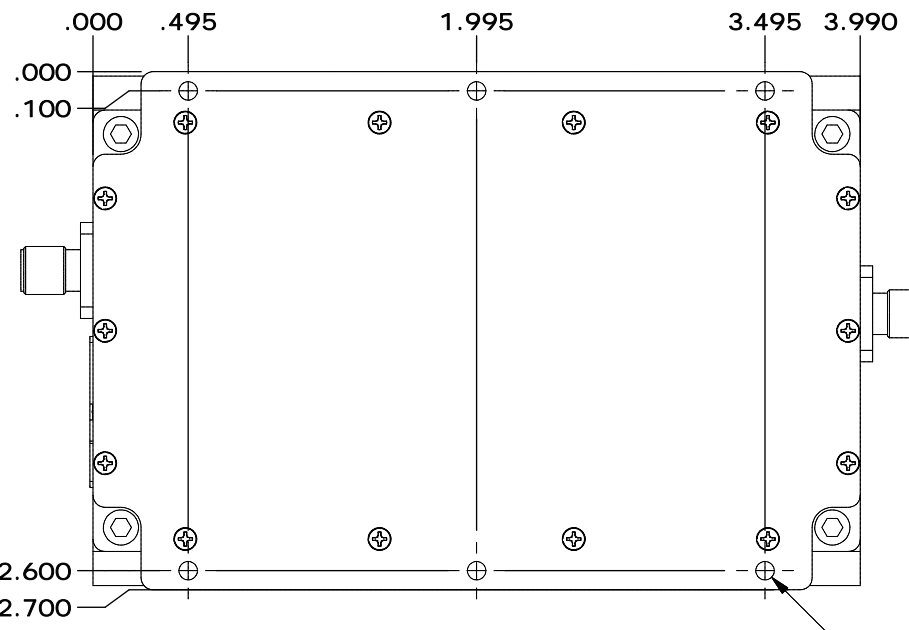
B

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D

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DRAWN	CFD	12/20/2017	HOUSING OUTLINE DRAWING 185		
DESIGNED	Dean	12/9/2017	SIZE	DWG NO.	REV
CHECKED			A	OL_185	1
ENG APPROVED			SCALE: NONE	CAGE CODE 67DZ3	SHEET 2 OF 2
MFG APPROVED					

A

B

C

D

E

1  
2  
3  
4

1  
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3  
4