

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

High Speed On/Off Control

Optional Heatsink

Versatile DC Supply (VDS) +9V to +36V

Temperature Compensation

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	30		2500	MHz
PSat Power Output	+36.0	+40.0		dBm
Gain		43.0		dB
Gain Flatness		2.0	3.0	dB ¹
Input Return Loss	-12	-14		dB
Operating Voltage	+ 9	+28	+36	VDC
Current Draw		1.2		A
Quiescent Current Draw		0.2		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 2 x 1.063	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	8	oz.
Weight with Heatsink	13	oz.

ENVIRONMENTAL / PROTECTIONS

PARAMETER	MIN	MAX	UNIT
Operating Temp. (Housing Temp.)	-40	+80	°C
Humidity Range	0-100		%
Altitude	0-30,000		ft.
Shock / Vibration	MIL-STD-810 and equivalents		--
Max RF Input	+12		dBm
PA Baseplate Shutoff Temperature	+ 90		°C

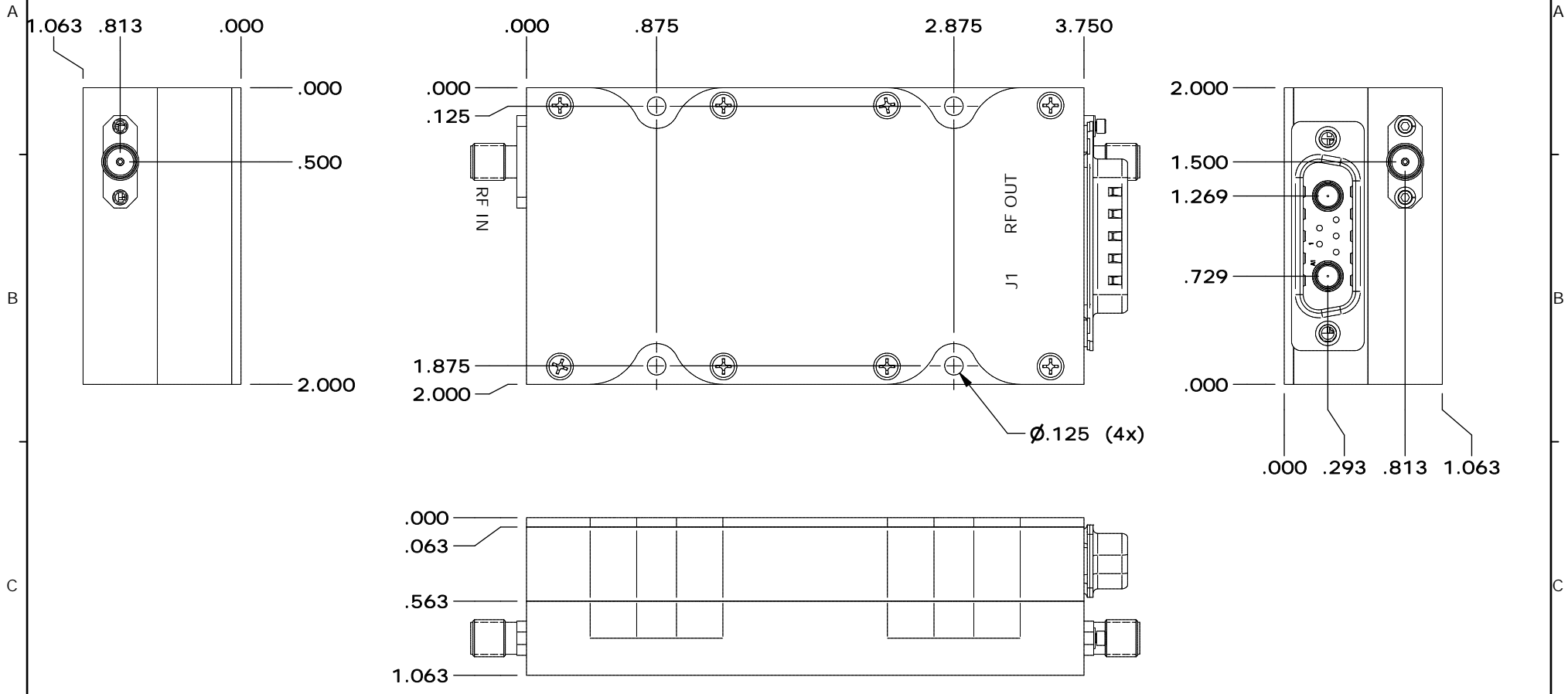
INPUT/OUTPUT PINS

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
TA1003	No Heat Sink Included
TA1003 – HS	Standard Heat Sink
TA1003 – HSF	Heat Sink with Integrated Cooling Fan
TA1003 – HSX	Custom Heat Sink Configuration
TA1003 – DOX	Custom Amplifier Configuration (issued by Triad upon customer request)

REVISIONS			
REV	DESCRIPTION	DATE	APPROVED
0	INITIAL RELEASE	2/11/13	DMC
1	ECN E15020	9/9/15	DMC
2	E18328	6/6/18	SC



DRAWN	DMC	2/11/2013
DESIGNED	DMC	2/27/2013
CHECKED		
ENG APPROVED		
MFG APPROVED		

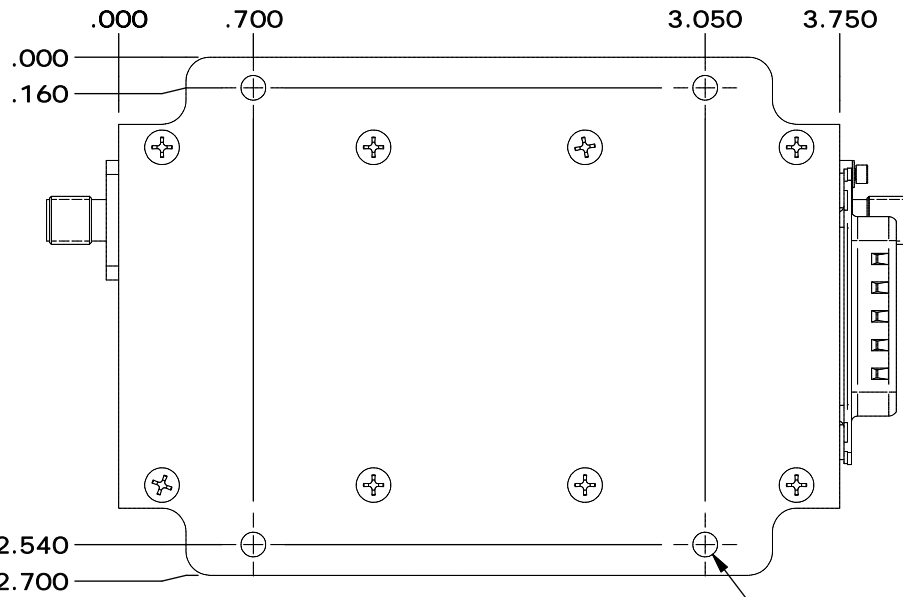
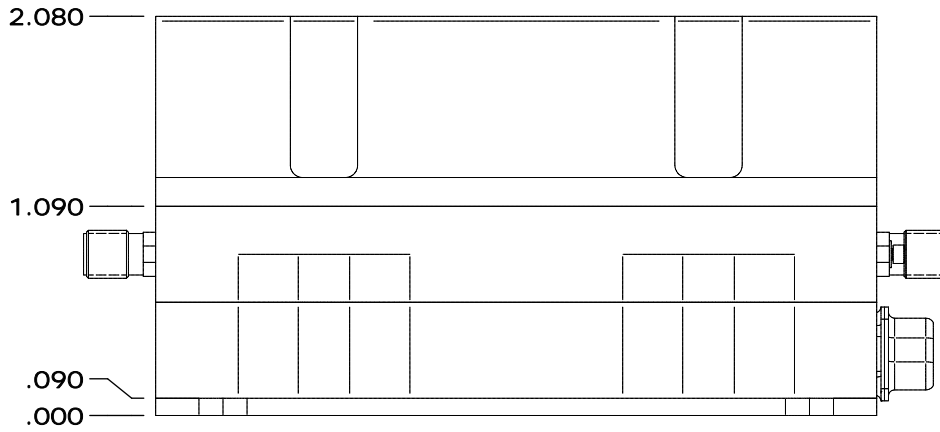


11 HARTS LN SUITE I
 EAST BRUNSWICK, NJ 08816
 855- 558- 1001

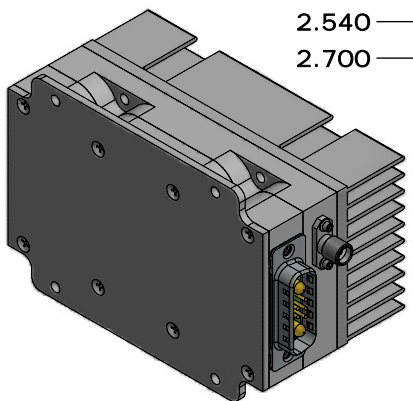
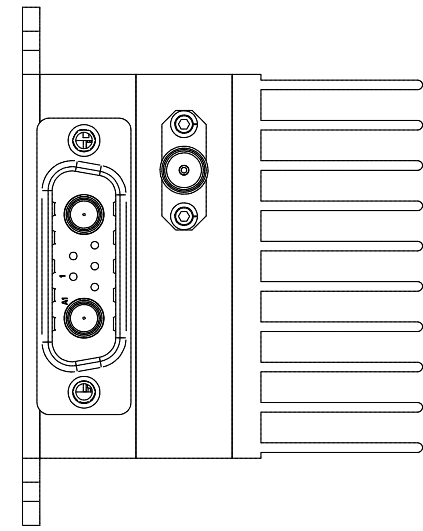
HOUSING OUTLINE DRAWING 102

DIMENSIONS ARE IN INCHES UNLESS SPECIFIED OTHERWISE		SIZE	DWG NO.	REV
TOLERANCES		A	OL_102	2
DECIMALS	FRACTIONS	ANGLES	SCALE: NONE	CAGE CODE
XX ±.01	± 1/32	± 2°	67DZ3	SHEET 1 OF 3
.XXX ±.005				

HEATSINK



Ø.129 (4x)



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MFG APPROVED		

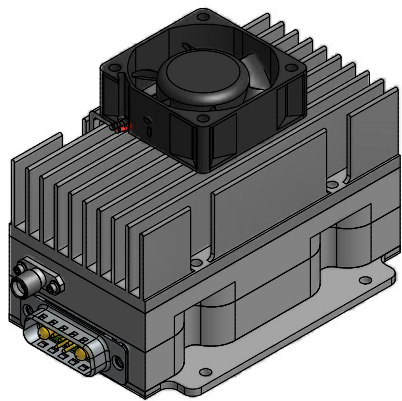
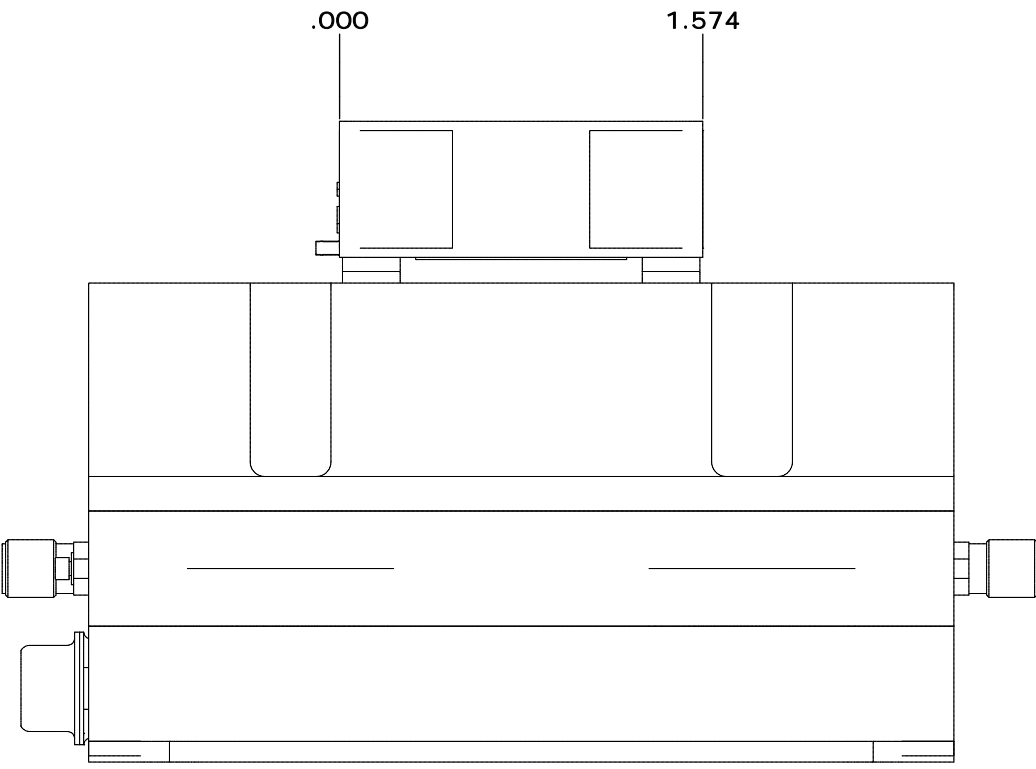
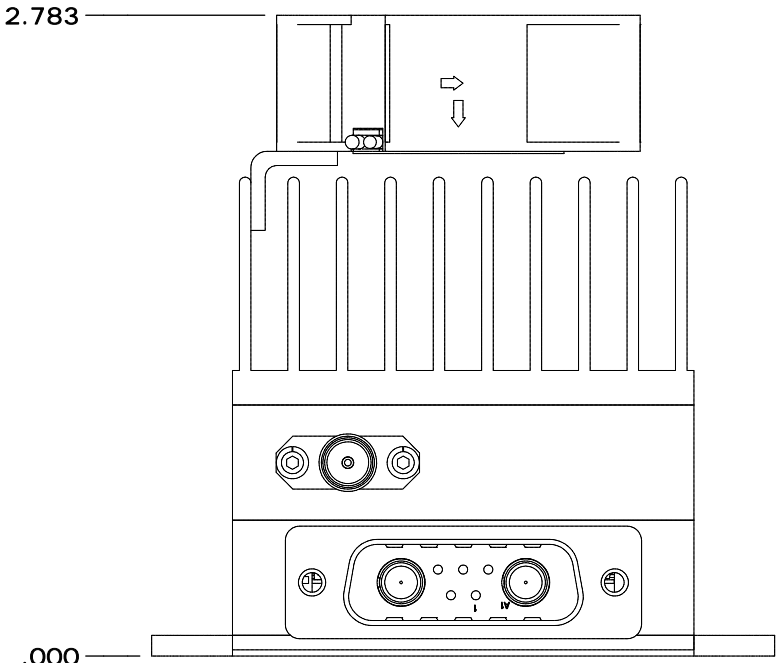
TRIAD
RF SYSTEMS

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855- 558- 1001

HOUSING OUTLINE DRAWING 102

DIMENSIONS ARE IN INCHES UNLESS SPECIFIED OTHERWISE TOLERANCES		SIZE	DWG NO.	REV
DECIMALS	FRACTIONS	ANGLES	A	OL_102
XX ±.01	± 1/32	± 2°		2
XXX ±.005			SCALE: NONE	CAGE CODE 67DZ3
				SHEET 2 OF 3

HEATSINK + FAN



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HOUSING OUTLINE DRAWING 102

DIMENSIONS ARE IN INCHES UNLESS SPECIFIED OTHERWISE TOLERANCES			SIZE A	DWG NO. OL_102	REV 2
DECIMALS XX ±.01 .XXX ±.005	FRACTIONS ± 1/32	ANGLES ± 2°	SCALE: NONE	CAGE CODE 67DZ3	SHEET 3 OF 3

