

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 +25°C, and in a 50Ω system.

RF / ELECTRICAL				
PARAMETER	MIN	TYP.	MAX	UNIT
Operating Frequency	3000		4200	MHz
P1dB Power Output	+36.0	+37.0		dBm
Gain		28.0		dB
Gain Flatness		1.0	2.0	dB ¹
Input Return Loss	-14			dB
Operating Voltage	+11	+12	+13	VDC
Current Draw		1.0		A
Quiescent Current Draw		2.0		A
Switching Time		1.0	2.0	μS

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)	3.25 x 2 x 0.993	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	6	oz.
Weight with Heatsink	16	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	+12		dBm
PA Baseplate Shutoff Temperature	+ 90		°C

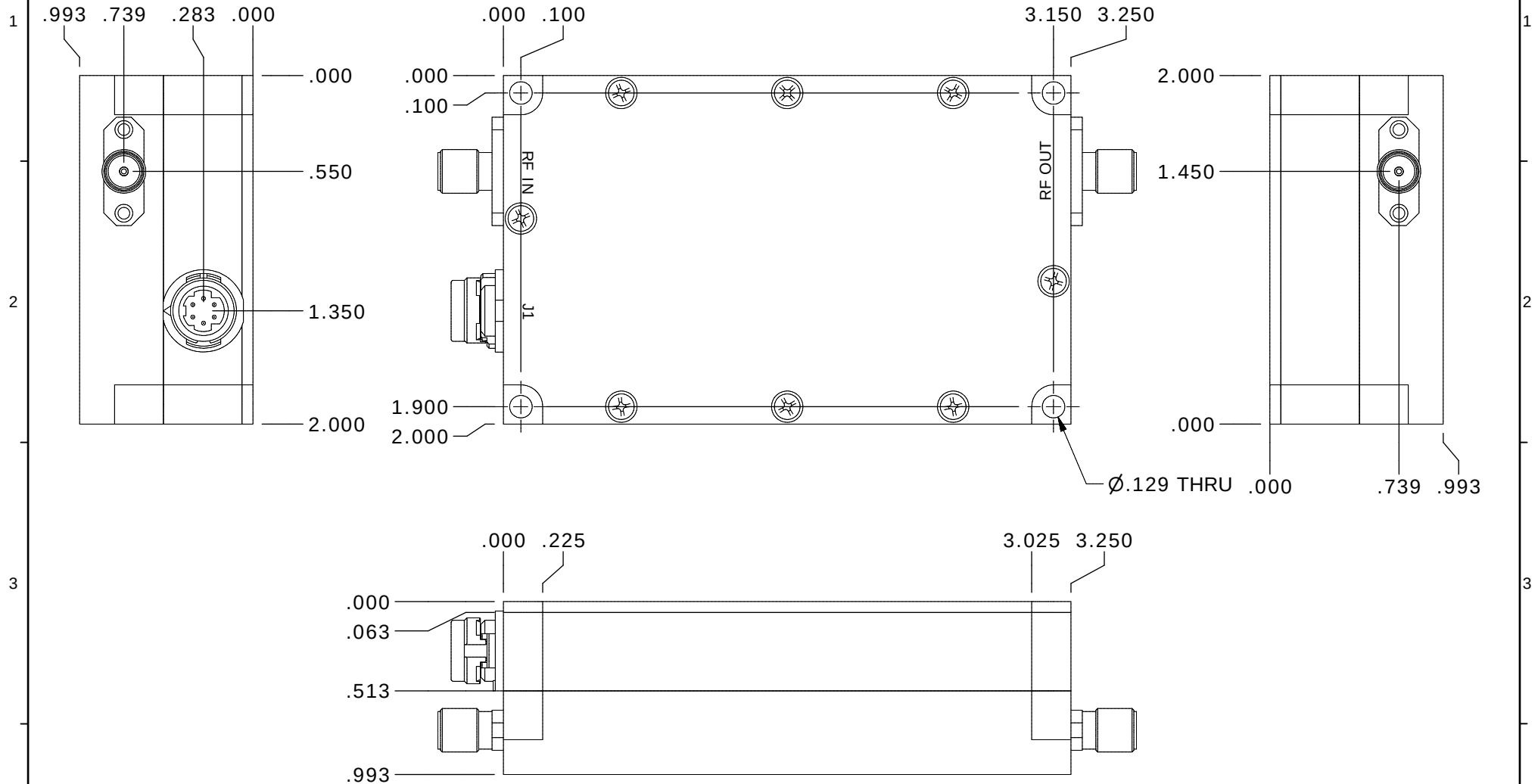
INPUT/OUTPUT PINS

AMPLIFIER CONNECTOR TYPE:		CIRCULAR PUSH/PULL MALE
TRIAD CABLE PART NUMBER:		CBL12
PIN NUMBER	LABEL	DESCRIPTION
1	GND	Ground
2	TEMP	Temp Monitor: Temp in DegC = (Vout - 0.5V) *100
3	Amp Enable	TTL Hi or No Connection = Enable, TTL Lo = Disable
4	FWD	Forward Power Detection
5	REV	Reverse Power Detection
6	+VDC	Supply Voltage - Range Specified in Datasheet

Configuration Options

Model Number	Description
TA1042	No Heat Sink Included
TA1042 – HS	Standard Heat Sink
TA1042 – HSF	Heat Sink with Integrated Cooling Fan
TA1042 – HSX	Custom Heat Sink Configuration
TA1042 – D0X	Custom Amplifier Configuration (issued by Triad upon customer request)

REVISIONS			
REV	DESCRIPTION	DATE	APPROVED
0	INITIAL RELEASE	07/07/2014	DMC
1	E18330	6/6/18	SC



DRAWN	DCH	7/7/2014
DESIGNED	DCH	9/28/2012
CHECKED	SNB	8/14/2015
ENG APPROVED		
MFG APPROVED		

DIMENSIONS ARE IN INCHES
UNLESS SPECIFIED OTHERWISE

DECIMALS	FRACTIONS	ANGLES
.XX ±.01	± 1/32	± 2°
.XXX ±.005		

		11 HARTS LANE SUITE I EAST BRUNSWICK, NJ 08816 855-558-1001	
		HOUSING OUTLINE DRAWING 119	
SIZE A	DWG NO. OL_119	REV 1	
SCALE: NONE	CAGE CODE 67DZ3	SHEET 1 OF 3	

A

B

C

D

E

HEATSINK

1.983

.993

.063

.000

.000

.575

2.675

3.250

.000

.160

2.540

2.700

 $\varnothing.129 \nabla .063$

DRAWN	DCH	7/7/2014	HOUSING OUTLINE DRAWING 119			
DESIGNED	DCH	9/28/2012				
CHECKED	SNB	8/14/2015	SIZE	DWG NO.		
ENG APPROVED			A	OL_119	REV	1
MFG APPROVED			SCALE: NONE	CAGE CODE 67DZ3	SHEET 2 OF 3	

A

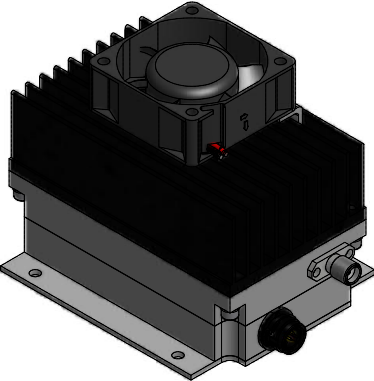
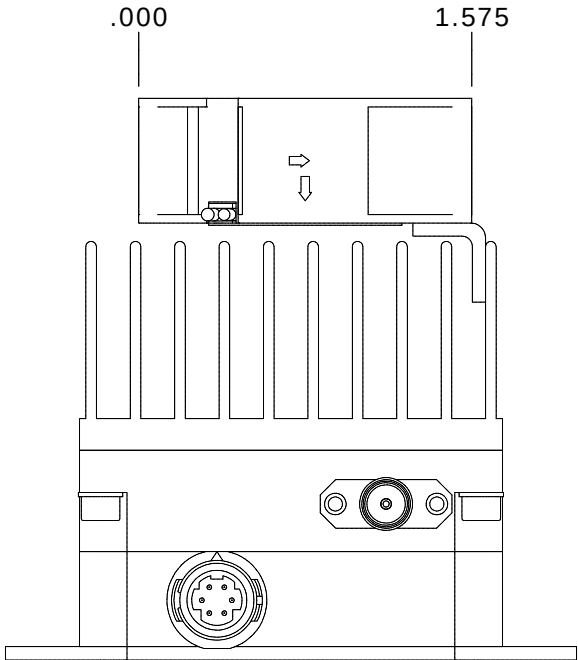
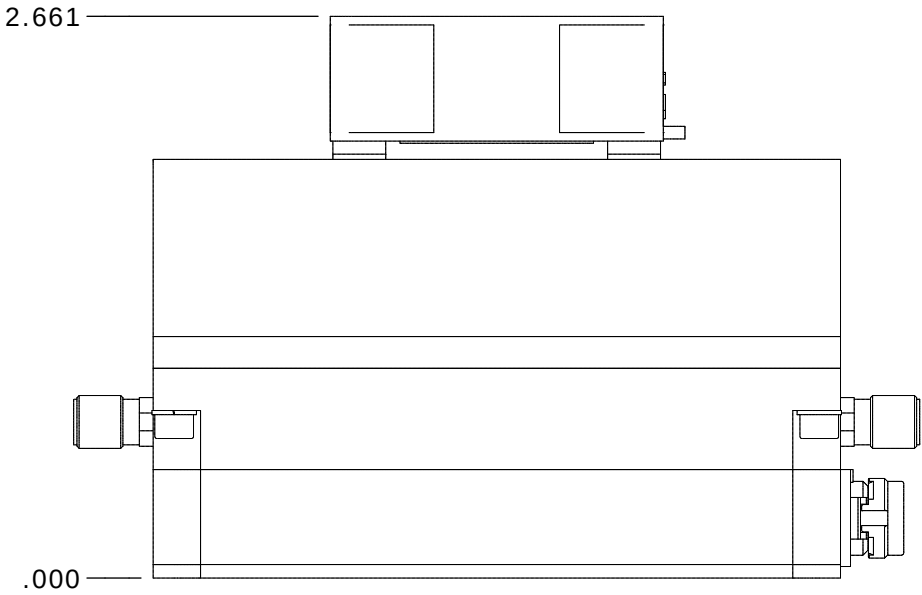
B

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HEATSINK + FAN



DRAWN	DCH	7/7/2014	 11 HARTS LANE SUITE I EAST BRUNSWICK, NJ 08816 855-558-1001		
DESIGNED	DCH	9/28/2012			
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ENG APPROVED					
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