

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	Temp. Monitor Output
Over-Temperature Protection	Internal Bypass Relay
Amplifier Status Output	

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	4400		5000	MHz
PSat Power Output		+40.0		dBm
Gain		23.0		dB
Gain Flatness		1.0		dB ¹
Input Return Loss	-10			dB
Operating Voltage	+10	+12	+30	VDC
Current Draw		3.5		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)	2.73 x 2.53 x 1.313	in
RF Connectors (Input / Output)	SMA-F / SMA-F	--
DC / Control Connector	10 Pin Circular Locking	--
Cooling	Baseplate Conduction - Optional Heatsink Available	--
Mounting	4-40 Thru Holes	--
Weight	10	oz.

ENVIRONMENTAL / PROTECTIONS

PARAMETER	MIN	MAX	UNIT
Operating Temp. (Housing Temp.)	-40	+85	°C
Humidity Range	0-95		%
Altitude	0-30,000		ft.
Shock / Vibration	MIL-STD-810 and equivalents		--
Max RF Input	+23		dBm
PA Baseplate Shutoff Temperature	+ 85		°C

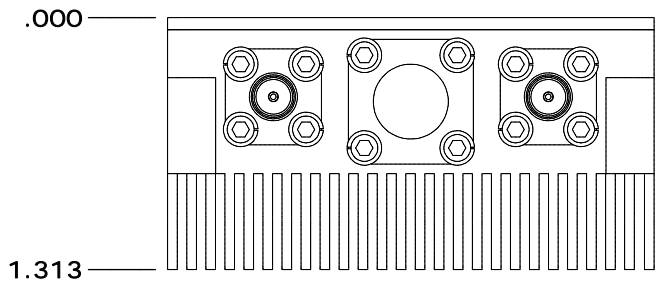
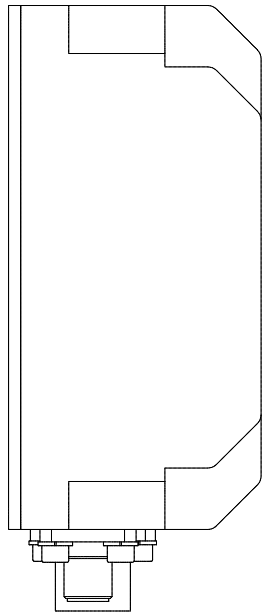
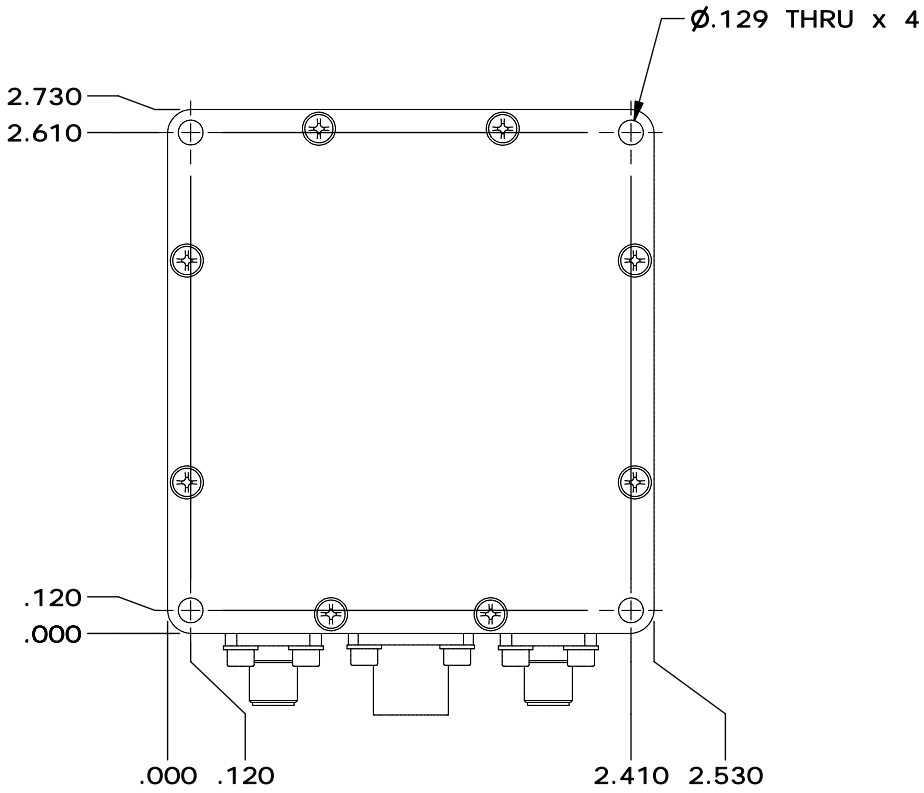
INPUT/OUTPUT PINS

AMPLIFIER CONNECTOR TYPE:		10 PIN CIRCULAR LOCKING
TRIAD CABLE PART NUMBER:		CBL65
PIN NUMBER	LABEL	DESCRIPTION
1-3	+VDC	Supply Voltage - Range Specified in Datasheet
4	Tx/Rx	Tx / Rx Switching, TTL High - TX, TTL Low or No Connection - RX
5	Bypass	Bypass Control: TTL High: Bypass Mode, GND: Amplifier On
6	Status	BDA Status - TTL High = Normal Operation, TTL Low = Error Condition
7	Temp	Temp Monitor: Temp in DegC = (Vout - 0.5V) *100
8-10	GND	Voltage Supply Return

Configuration Options

Model Number	Description
TA4002R	Integrated Heat Sink
TA4002R – F	Integrated Heat Sink with Cooling Fan
TA4002R – DOX	Custom Amplifier Configuration (issued by Triad upon customer request)

REVISIONS			
REV	DESCRIPTION	DATE	APPROVED
O	INITIAL RELEASE	5/18/18	SC



DRAWN	scopp	10/3/2013
DESIGNED	scopp	4/25/2018
CHECKED		
ENG APPROVED		
MFG APPROVED		

TRIAD
RF SYSTEMS

11 HARTS LANE SUITE 1
EAST BRUNSWICK, NJ 08816
855- 558- 1001

Housing Outline 193

DIMENSIONS ARE IN INCHES UNLESS SPECIFIED OTHERWISE TOLERANCES		SIZE	DWG NO.	REV
DECIMALS	FRACTIONS	ANGLES	A	O
XX ±.01	± 1/32	± 2°	OL_193	
.XXX ±.005			SCALE: NONE	CAGE CODE 67DZ3
				SHEET 1 OF 4