

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

Thermal Shutdown
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	7100		7500	MHz
PSat Power Output		+44.0		dBm
Gain		58.0		dB
Gain Flatness		2.0	2.5	dB ¹
Input Return Loss	-14	-15		dB
Operating Voltage	+ 9	+28	+36	VDC
Current Draw		2.3		A
Quiescent Current Draw		0.75		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)	6 x 2.5 x 1.06	in
RF Connectors (Input / Output)	SMA-F / SMA-F	--
DC / Control Connector	7W2 Male	--
Cooling	Baseplate Conduction - Optional Heatsink Available	--
Mounting	6-32 Feedthru	--
Weight	17	oz.
Weight with Heatsink	27	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	-11		dBm
PA Baseplate Shutoff Temperature	+ 90		°C

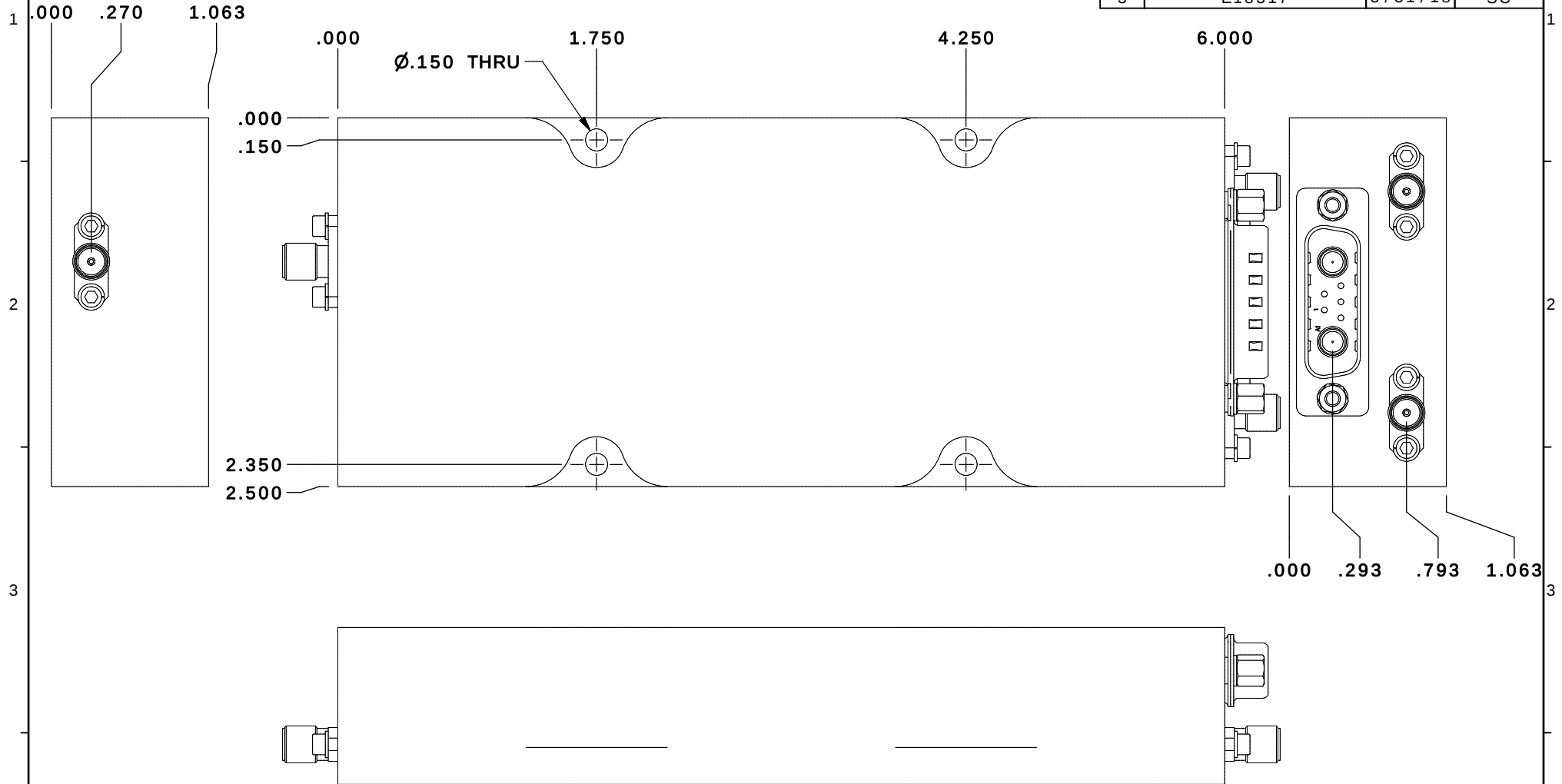
INPUT/OUTPUT PINS

AMPLIFIER CONNECTOR TYPE:		7W2 MALE
TRIAD CABLE PART NUMBER:		CBL21
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	REV	Reverse Power Detection
4	SGND	Signal Ground
5	FWD	Forward Power Detection
A2	+VDC	Supply Voltage - Range Specified in Datasheet

Configuration Options

Model Number	Description
TA1146	No Heat Sink Included
TA1146 – HS	Standard Heat Sink
TA1146 – HSF	Heat Sink with Integrated Cooling Fan
TA1146 – HSX	Custom Heat Sink Configuration
TA1146 – DOX	Custom Amplifier Configuration (issued by Triad upon customer request)

REVISIONS			
REV	DESCRIPTION	DATE	APPROVED
0	INITIAL RELEASE	10/30/17	SC
1	E18253	1/24/18	SC
2	E18268	2/9/18	SC
3	E18317	5/31/18	SC



DRAWN	scoppi	10/30/2017
DESIGNED	DMC	12/6/2012
CHECKED		
ENG APPROVED		
MFG APPROVED		



TRIAD
RF SYSTEMS

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

HOUSING OUTLINE DRAWING 130

DIMENSIONS ARE IN INCHES UNLESS SPECIFIED OTHERWISE TOLERANCES			SIZE A		DWG NO. OL_130		REV 3	
DECIMALS .XX ± .005	FRACTIONS ± 1/32	ANGLES ± 2°	SCALE: NONE		CAGE CODE 67DZ3		SHEET 1 OF 1	