

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
High Speed On/Off Control

Optional Heatsink
Thermal Shutdown

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	6400		7100	MHz
P1dB Power Output	+36.0	+37.0		dBm
Linear Power Output		30.0		dBm
Linear Power Test Conditions	COFDM @ -30 dBc ACPR			--
Gain		10.0		dB
Gain Flatness		0.5	1.0	dB ¹
Input Return Loss	-10	-14		dB
Operating Voltage	+11	+12	+13	VDC
Current Draw		1.6		mA
Quiescent Current Draw		30.0		mA
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 1.9 x 0.493	in
RF Connectors (Input / Output)	SMA-F / SMA-F	--
DC / Control Connector	9 Pin Micro-D	--
Cooling	Baseplate Conduction - Optional Heatsink Available	--
Mounting	6-32 Threaded Holes	--
Weight	4	oz.
Weight with Heatsink	14	oz.

ENVIRONMENTAL / PROTECTIONS

PARAMETER	MIN	MAX	UNIT
Operating Temp. (Housing Temp.)	-40	+85	°C
Storage Temp Range	-60	+100	°C
Humidity Range	0-100		%
Altitude	0-30,000		ft.
Shock / Vibration	MIL-STD-810 and equivalents		--
Max RF Input	+30		dBm
Load VSWR @ P1dB	Open / Short Output Protection		--
PA Baseplate Shutoff Temperature	+ 90		°C

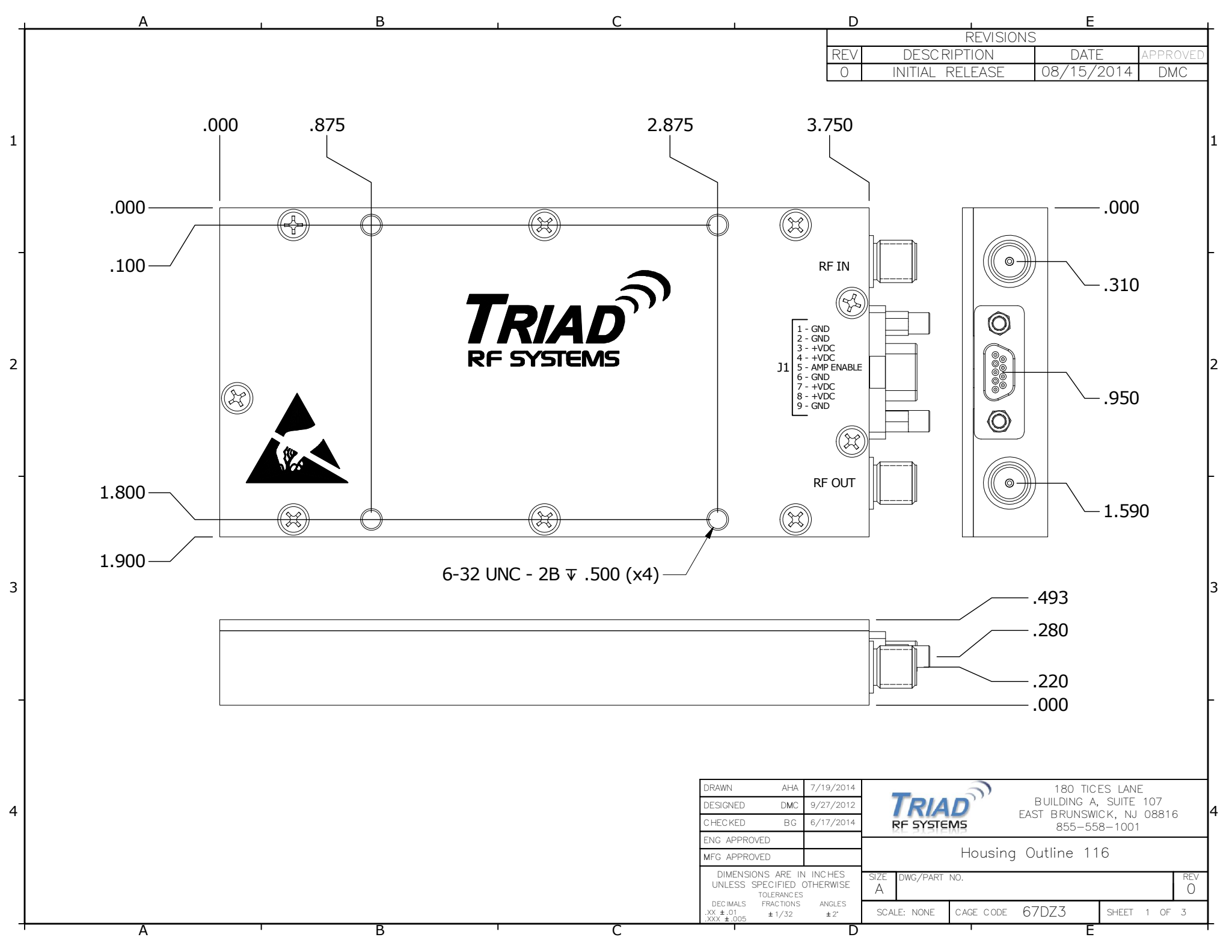
DC / CONTROL PINS

PIN LABEL	NAME	DESCRIPTION
1	GND	Ground
2	GND	Ground
3	+VDC	Supply Voltage - Range Specified in Datasheet
4	+VDC	Supply Voltage - Range Specified in Datasheet
5	Amp Enable	TTL On/Off Low=Enable, High=Disable
6	GND	Ground
7	+VDC	Supply Voltage - Range Specified in Datasheet
8	+VDC	Supply Voltage - Range Specified in Datasheet
9	GND	Ground

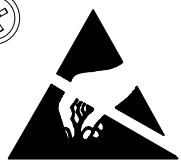
Configuration Options

Model Number	Description
TA1167	No Heat Sink Included
TA1167 – HS	Standard Heat Sink
TA1167 – HSF	Heat Sink with Integrated Cooling Fan
TA1167 – HSX	Custom Heat Sink Configuration
TA1167 – DOX	Custom Amplifier Configuration (issued by Triad upon customer request)

REVISIONS			
REV	DESCRIPTION	DATE	APPROVED
0	INITIAL RELEASE	08/15/2014	DMC



TRIAD
RF SYSTEMS



- J1
- 1 - GND
 - 2 - GND
 - 3 - +VDC
 - 4 - +VDC
 - 5 - AMP ENABLE
 - 6 - GND
 - 7 - +VDC
 - 8 - +VDC
 - 9 - GND

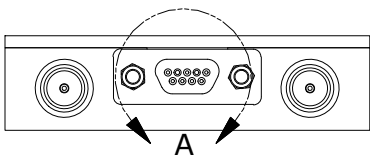
DRAWN	AHA	7/19/2014
DESIGNED	DMC	9/27/2012
CHECKED	BG	6/17/2014
ENG. APPROVED		
MFG. APPROVED		

TRIAD
RF SYSTEMS

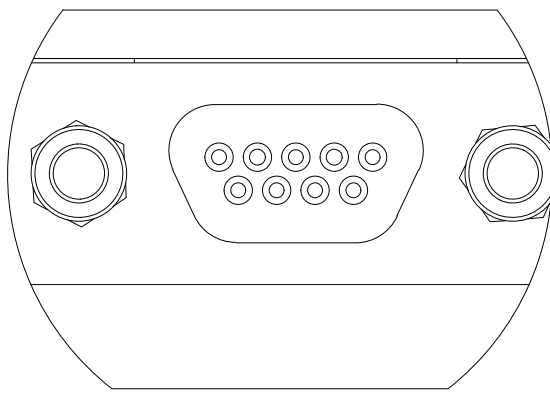
180 TICES LANE
BUILDING A, SUITE 107
EAST BRUNSWICK, NJ 08816
855-558-1001

Housing Outline 116

DIMENSIONS ARE IN INCHES UNLESS SPECIFIED OTHERWISE			SIZE	DWG/PART NO.	REV
TOLERANCES			A		0
DECIMALS	FRACTIONS	ANGLES			
.XX ± .01	± 1/32	± 2°	SCALE: NONE	CAGE CODE 67DZ3	SHEET 1 OF 3
.XXX ± .005					



DETAIL A



CONNECTOR PINOUT		
PIN	FUNCTION	NOTES
1	GND	Ground
2	GND	Ground
3	+VDC	Supply Voltage - Range Specified in Datasheet
4	+VDC	Supply Voltage - Range Specified in Datasheet
5	Amp Enable	TTL On/Off Low=Enable, High=Disable
6	GND	Ground
7	+VDC	Supply Voltage - Range Specified in Datasheet
8	+VDC	Supply Voltage - Range Specified in Datasheet
9	GND	Ground

PIN FUNCTION SUBJECT TO CHANGE WITHOUT NOTICE.
REFER TO DATASHEET FOR EXACT PIN DESCRIPTION.

NOTES:

1. VIEW FACING CONNECTOR INTERFACE (AMP SIDE)
2. CONNECTOR P/N- ITT CANNON M83513/01-AC

DRAWN	AHA	7/19/2014	Housing Outline 116		
DESIGNED	DMC	9/27/2012			
CHECKED	BG	6/17/2014	SIZE A	DWG/PART NO.	REV 0
ENG. APPROVED					
MFG APPROVED			SCALE: NONE	CAGE CODE 67DZ3	SHEET 2 OF 3

A

B

C

D

E

1

1

2

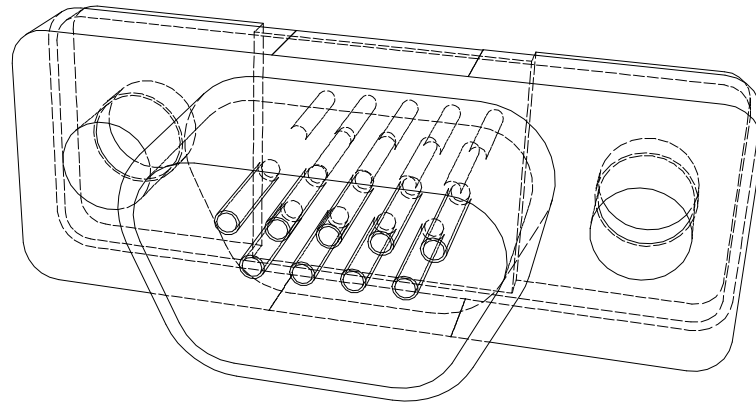
2

3

3

4

4



NOTES:

1. CONNECTOR MATE CABLE P/N- ITT CANNON M83513/02-AC

2. CONNECTOR MATE CABLE BACKSHELL AND HOOD P/N:
E-TEC INTERCONNECT MSF-009-CS07-AK

DRAWN	AHA	7/19/2014			
DESIGNED	David	10/9/2012			
CHECKED	BG	6/17/2014	SIZE	DWG/PART NO.	REV
ENG. APPROVED			A	380-009-213L001	
MFG APPROVED			SCALE: NONE	CAGE CODE 67DZ3	SHEET 3 OF 3

A

B

C

D

E