

DESCRIPTION

This class AB LDMOS 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
Optional Heatsink

High Speed On/Off Control

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	1250		1350	MHz
PSat Power Output		+47.0		dBm
Gain	16.0	17.0		dB
Gain Flatness		1.0	2.0	dB ¹
Input Return Loss	-18	-20		dB
Operating Voltage	+27	+28	+30	VDC
Current Draw		2.0	3.0	A
Quiescent Current Draw		0.2		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)	6 x 3 x 0.793	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	14	oz.
Weight with Heatsink	24	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	+33		dBm
PA Baseplate Shutoff Temperature	+ 90		°C

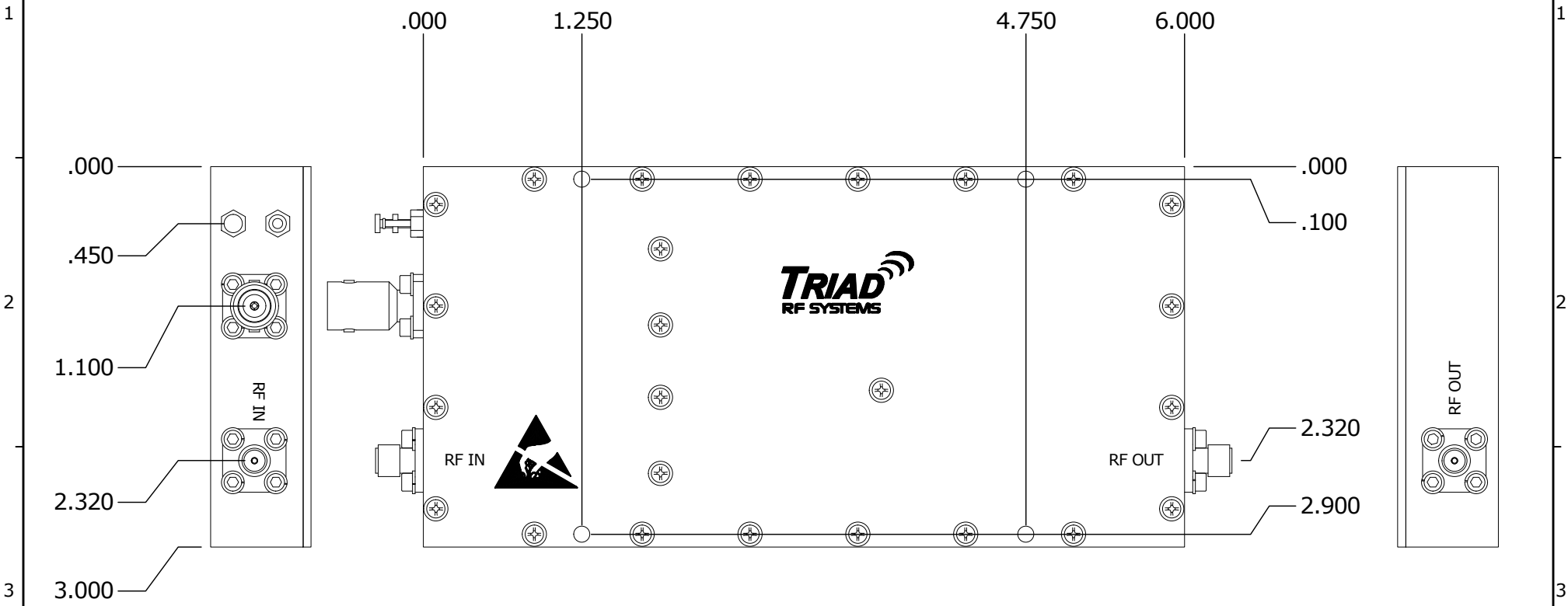
INPUT/OUTPUT PINS

AMPLIFIER CONNECTOR TYPE:		CIRCULAR BAYONET LOCKING MALE
TRIAD CABLE PART NUMBER:		CBL10
PIN NUMBER	LABEL	DESCRIPTION
1	GND	Ground
2	Amp Enable	TTL Hi or No Connection = Enable, TTL Lo = Disable
3	+VDC	Supply Voltage - Range Specified in Datasheet

Configuration Options

Model Number	Description
TA1004	No Heat Sink Included
TA1004 – HS	Standard Heat Sink
TA1004 – HSF	Heat Sink with Integrated Cooling Fan
TA1004 – HSX	Custom Heat Sink Configuration
TA1004 – DOX	Custom Amplifier Configuration (issued by Triad upon customer request)

REVISIONS			
REV	DESCRIPTION	DATE	APPROVED
0	INITIAL RELEASE	03/13/2015	DMC



DRAWN	AHA	7/9/2014
DESIGNED	SNB	11/1/2011
CHECKED	BG	7/9/2014
ENG. APPROVED		
MFG. APPROVED		

TRIAD
RF SYSTEMS

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

Housing Outline 124

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

A

B

C

D

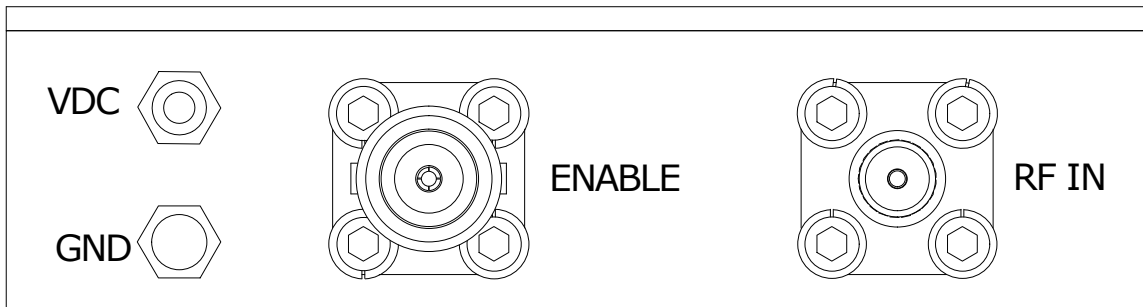
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3

CONNECTOR PINOUT		
PIN	FUNCTION	NOTES
1	+VDC	SUPPLY VOLTAGE - RANGE SPECIFIED IN DATASHEET
2	GND	Ground
3	Amp Enable	TTL On/Off Low=Enable, High=Disable

4

4

NOTES:

1. P/N OF CONNECTOR ON AMPLIFIER: Delta 105-000-N051

DRAWN	AHA	7/9/2014	Housing Outline 124		
DESIGNED	SNB	11/1/2011			
CHECKED	BG	7/9/2014	SIZE	DWG NO.	REV
ENG. APPROVED			A		0
MFG APPROVED			SCALE: NONE	CAGE CODE 67DZ3	SHEET 2 OF 3

A

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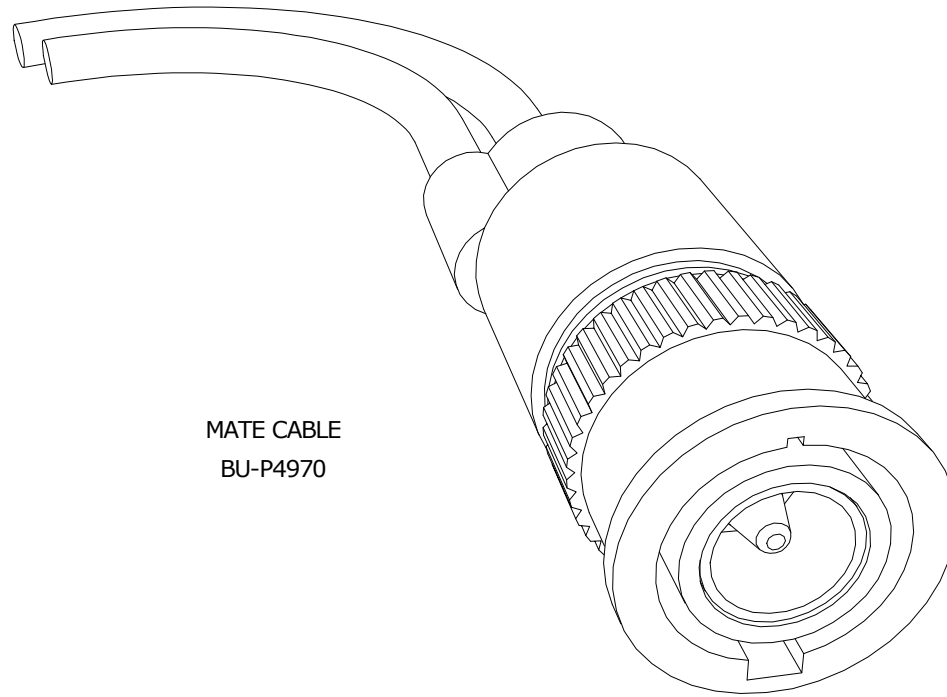
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MATE CABLE
BU-P4970

NOTES:

1. P/N OF MATING CONNECTOR REQUIRED:
MUELLER ELECTRIC CO BU-P4970 OR EQUIVALENT
2. WIRE DIAMETER: 20 AWG

DRAWN	AHA	7/9/2014	Housing Outline 124		
DESIGNED	Alpni	3/13/2015			
CHECKED	BG	7/9/2014	SIZE	DWG NO.	REV
ENG. APPROVED			A		
MFG APPROVED			SCALE: NONE	CAGE CODE 67DZ3	SHEET 3 OF 3

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