Power Amplifiers

TA1200

1200-1400 MHz 20 W Power Amplifier

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

Input Overdrive Protection

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	1200		1400	MHz
PSat Power Output	+42.0	+43.0		dBm
Gain	24.0	25.0		dB
Gain Flatness		0.3	0.5	dB [1]
Input Return Loss	-12	-13		dB
Operating Voltage	+27	+28	+30	VDC
Current Draw		1.0	2.5	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.

Triad RF Systems Inc. | 11 Harts Ln, Suite I, East Brunswick, NJ 08816
Tel: 1-(855) 558-1001 x1 | sales@triadrf.com

TRIAD RF SYSTEMS

TA1200

1200-1400 MHz 20 W Power Amplifier

Mechanical		
Parameter	**Value**	**Unit**
Dimensions (L x W x H)	3.33 x 2.69 x 0.65	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	5	oz.
Weight with Heatsink	15	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	+21		dBm
PA Baseplate Shutoff Temperature	+ 90		°C

Input/Output Pins		
Amplifier Connector Type:	Circular Bayonet Locking Male	
Triad Cable Part Number:	CBL13	
Pin Number	**Label**	**Description**
1	Tx/Rx	Tx / Rx Switching (+5V = Tx Amp Active / 0V = Rx Amp Active)
2	GND	Ground
3	+VDC	Supply Voltage - Range Specified in Datasheet

Configuration Options	
Model Number	**Description**
TA1200	No Heat Sink Included
TA1200 – HS	Standard Heat Sink
TA1200 – HSF	Heat Sink with Integrated Cooling Fan
TA1200 – HSX	Custom Heat Sink Configuration
TA1200 – D0X	Custom Amplifier Configuration (issued by Triad upon customer request)

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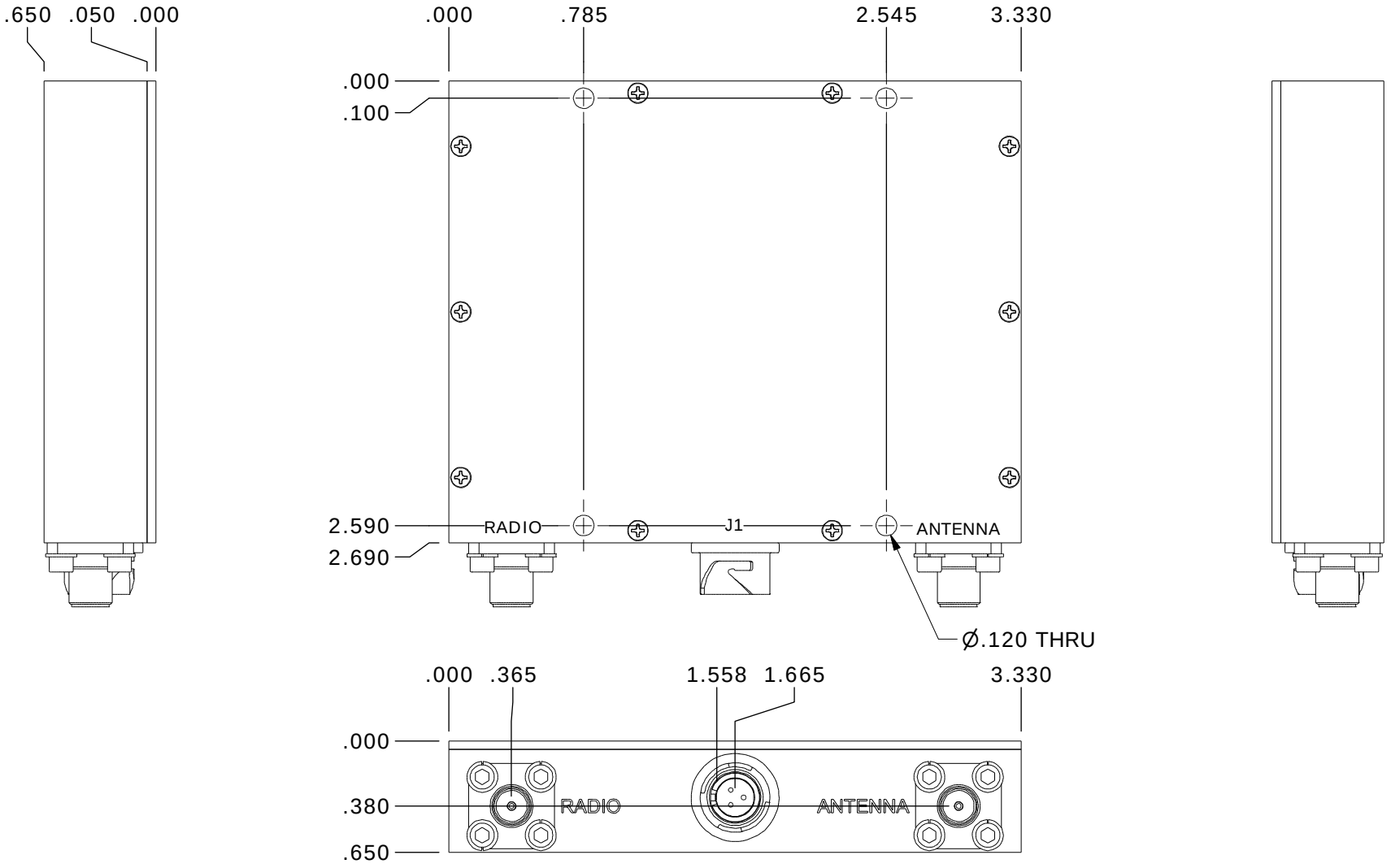
REVISIONS			
REV	DESCRIPTION	DATE	APPROVED
0	INITIAL RELEASE	08/03/2014	DMC
1	E18329	6/6/18	SC



DRAWN	AHA	6/17/2014
DESIGNED	Stephen	5/4/2017
CHECKED	BG	6/17/2014
ENG APPROVED		
MFG APPROVED		

DIMENSIONS ARE IN INCHES
UNLESS SPECIFIED OTHERWISE
TOLERANCES

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

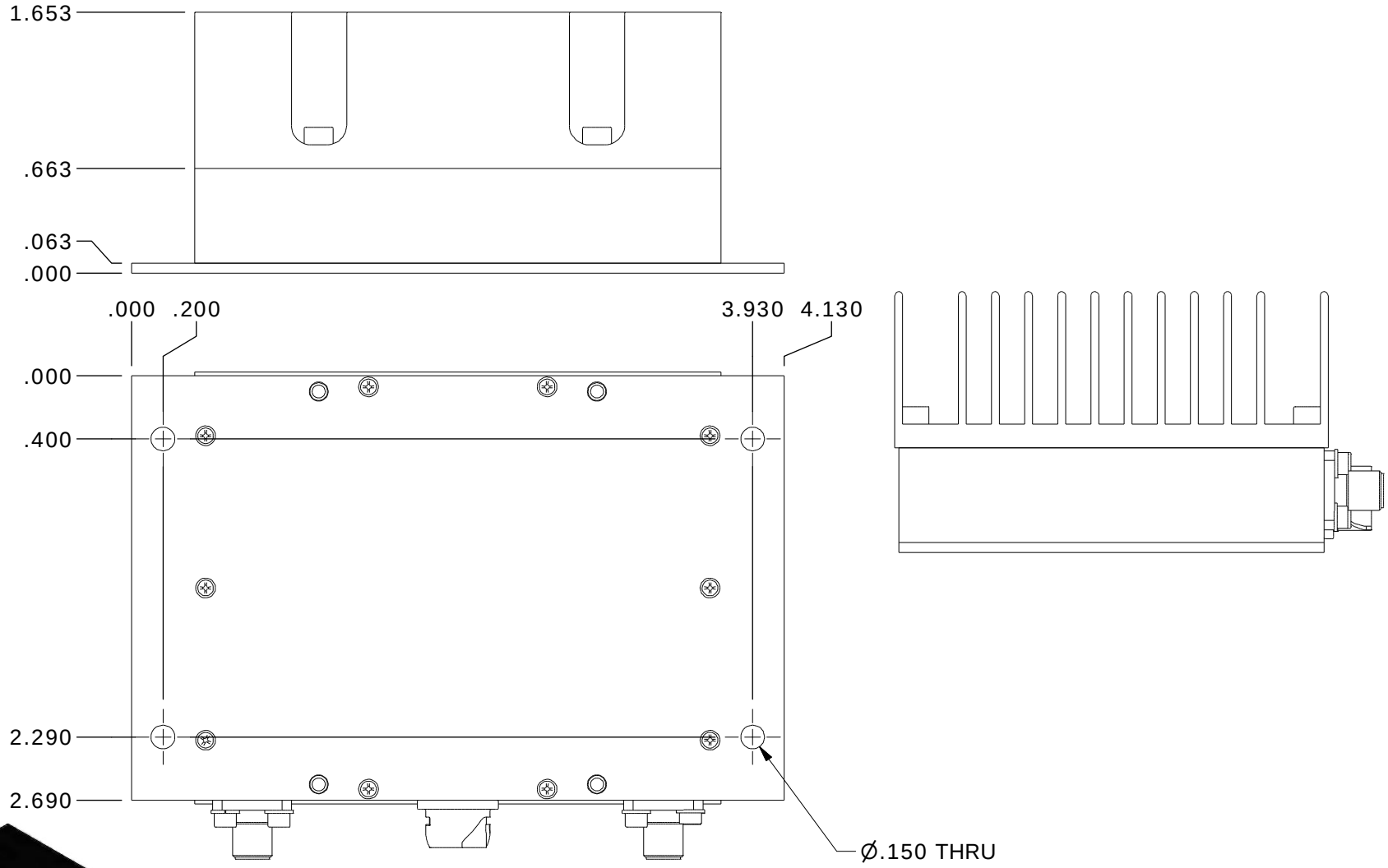
TRIAD RF SYSTEMS
11 HARTS LANE SUITE I
EAST BRUNSWICK, NJ 08816
855-558-1001

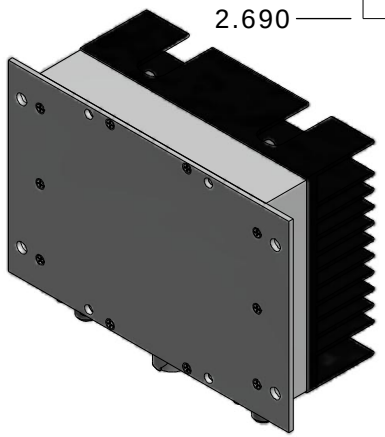
HOUSING OUTLINE DRAWING 118

SIZE	DWG NO.	REV
A	OL_118	1

SCALE: NONE	CAGE CODE 67DZ3	SHEET 1 OF 3

HEATSINK OPTION





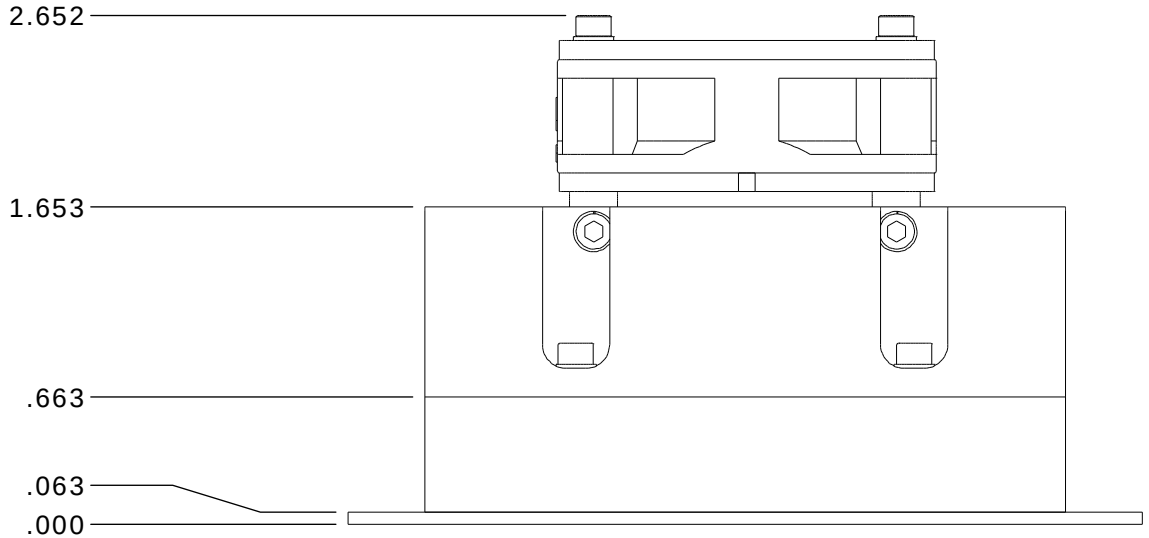
DRAWN	AHA	6/17/2014
DESIGNED	DCH	7/12/2013
CHECKED	BG	6/17/2014
ENG APPROVED		
MFG APPROVED		

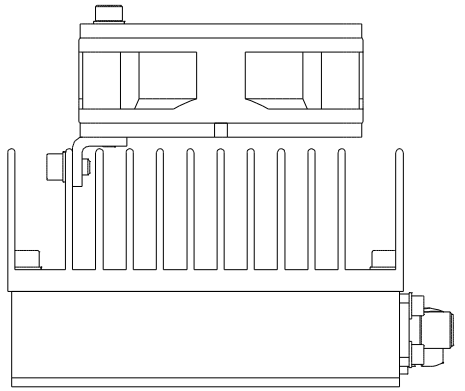
HOUSING OUTLINE DRAWING 118

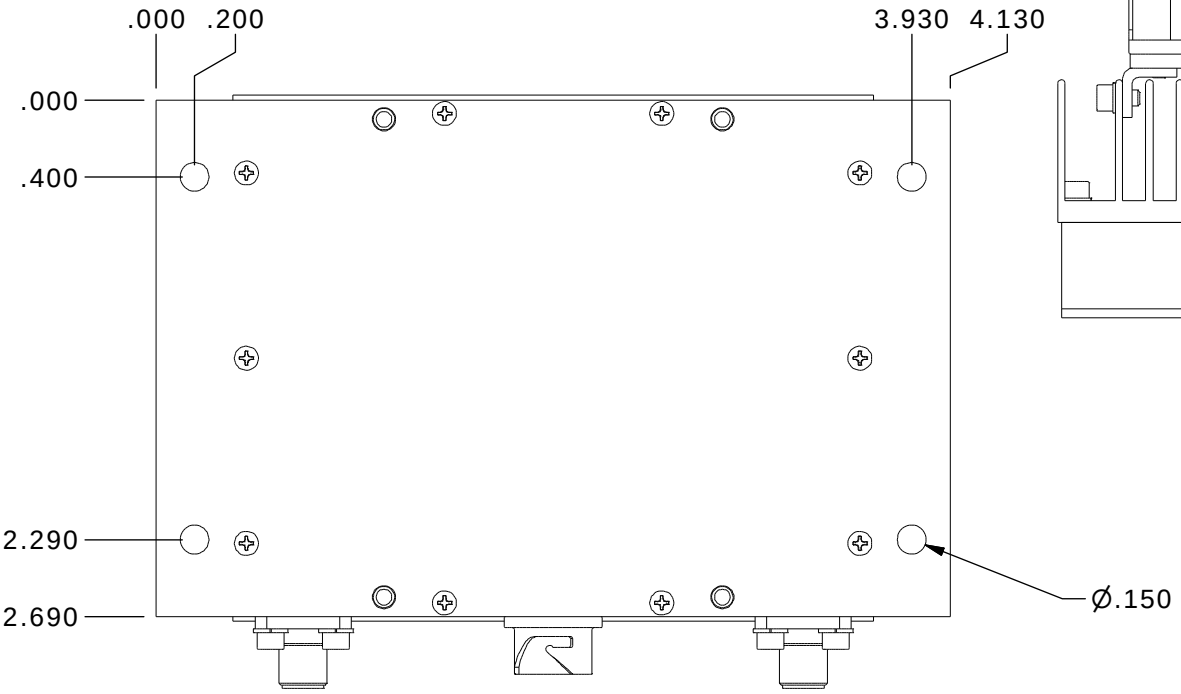
SIZE	DWG NO.	REV
A	OL_118	1

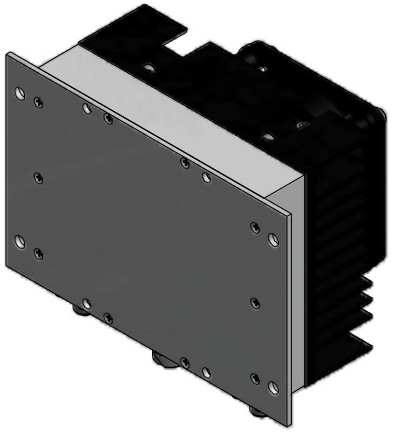
SCALE: NONE | CAGE CODE 67DZ3 | SHEET 2 OF 3

HEATSINK FAN OPTION









DRAWN	AHA	6/17/2014	HOUSING OUTLINE DRAWING 118		
DESIGNED	Stephen	5/4/2017			
CHECKED	BG	6/17/2014	SIZE A	DWG NO. OL_118	REV 1
ENG APPROVED			SCALE: NONE	CAGE CODE 67DZ3	SHEET 3 OF 3
MFG APPROVED					