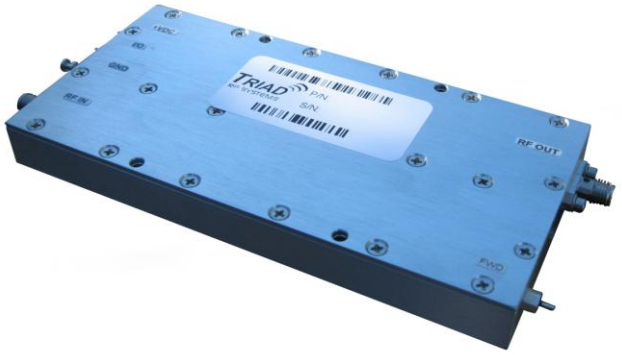
Power Amplifers

TA1125 |800-1000MHz 8W
Power Amplifier

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 Voltage Protection
Forward Power Measurement
High Speed On/Off Control
Optional Heatsink

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	800		1000	MHz
P1dB Power Output		+39.0		dBm
Linear Power Output		30.0		dBm
Linear Power Test Conditions		2 Tone with 50 dBc		--
Gain		35.0		dB
Gain Flatness		0.5		dB [1]
Input Return Loss		-15		dB
Operating Voltage	+11	+12	+13	VDC
Current Draw		1.9		A
Quiescent Current Draw		1.9		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. | 180 Tices Lane, Building A, Suite 107, East Brunswick, NJ 08816
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TRIAD RF SYSTEMS

TA1125 |800-1000MHz 8W
POWER AMPLIFIER

MECHANICAL		
PARAMETER	**VALUE**	**UNIT**
Dimensions (L x W x H)	5 x 2.5 x 0.553	in
RF Connectors (Input / Output)	SMA-F / SMA-F	--
DC / Control Connector	Feedthru Pins	--
Cooling	Baseplate Conduction - Optional Heatsink Available	--
Mounting	4-40 Thru Holes	--
Weight	7	oz.
Weight with Heatsink	17	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	+6		dBm
Load VSWR @ P1dB	Open / Short Output Protection		--
PA Baseplate Shutoff Temperature	+ 90		°C

DC / CONTROL PINS		
PIN LABEL	**NAME**	**DESCRIPTION**
1	+VDC	Supply Voltage - Range Specified in Datasheet
2	Amp Enable	TTL On/Off Low=Enable, High=Disable
3	GND	Ground
4	FWD	Forward Power Measurement

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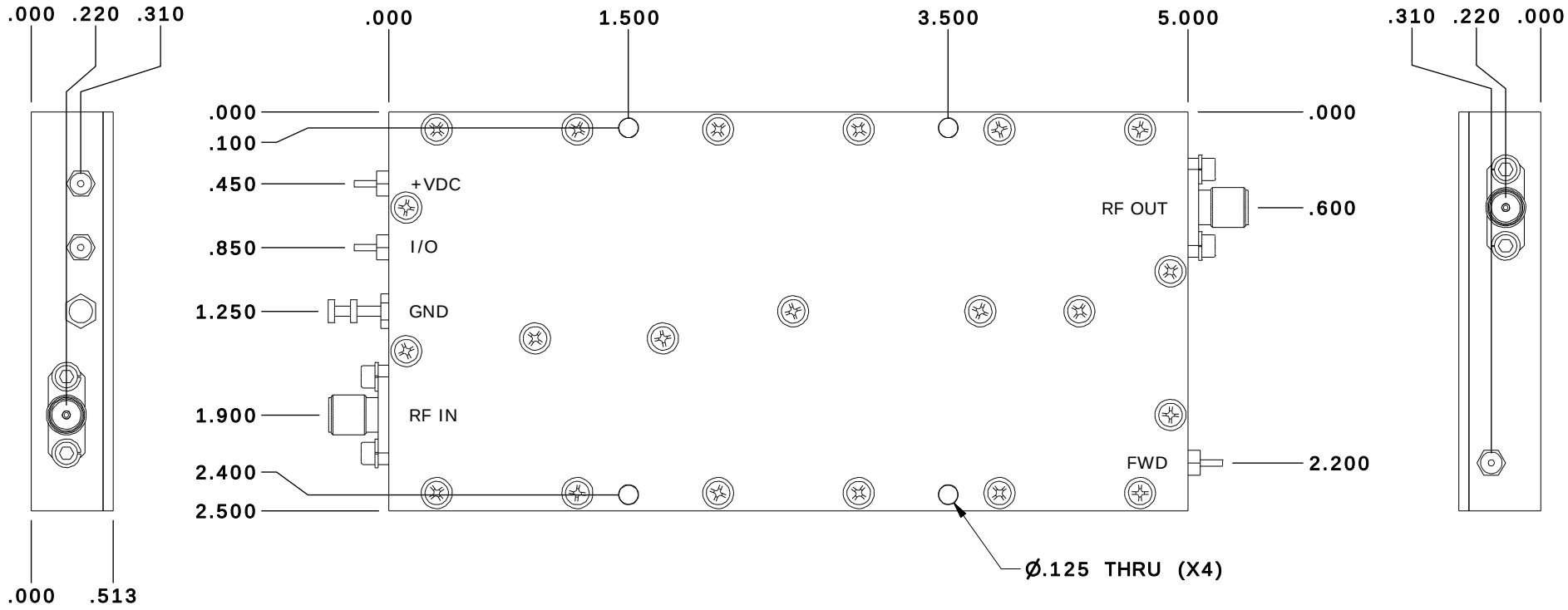
REVISIONS			
REV	DESCRIPTION	DATE	APPROVED
0	INITIAL RELEASE	8/24/15	DMC



DRAWN	DMC	8/24/2015
DESIGNED	PA	5/18/2015
CHECKED		
ENG APPROVED		
MFG APPROVED		

DIMENSIONS ARE IN INCHES
UNLESS SPECIFIED OTHERWISE
TOLERANCES
DECIMALS .XX ±.01 .XXX ±.005
FRACTIONS ±1/32
ANGLES ±2°

TRIAD RF SYSTEMS
180 TICES LANE
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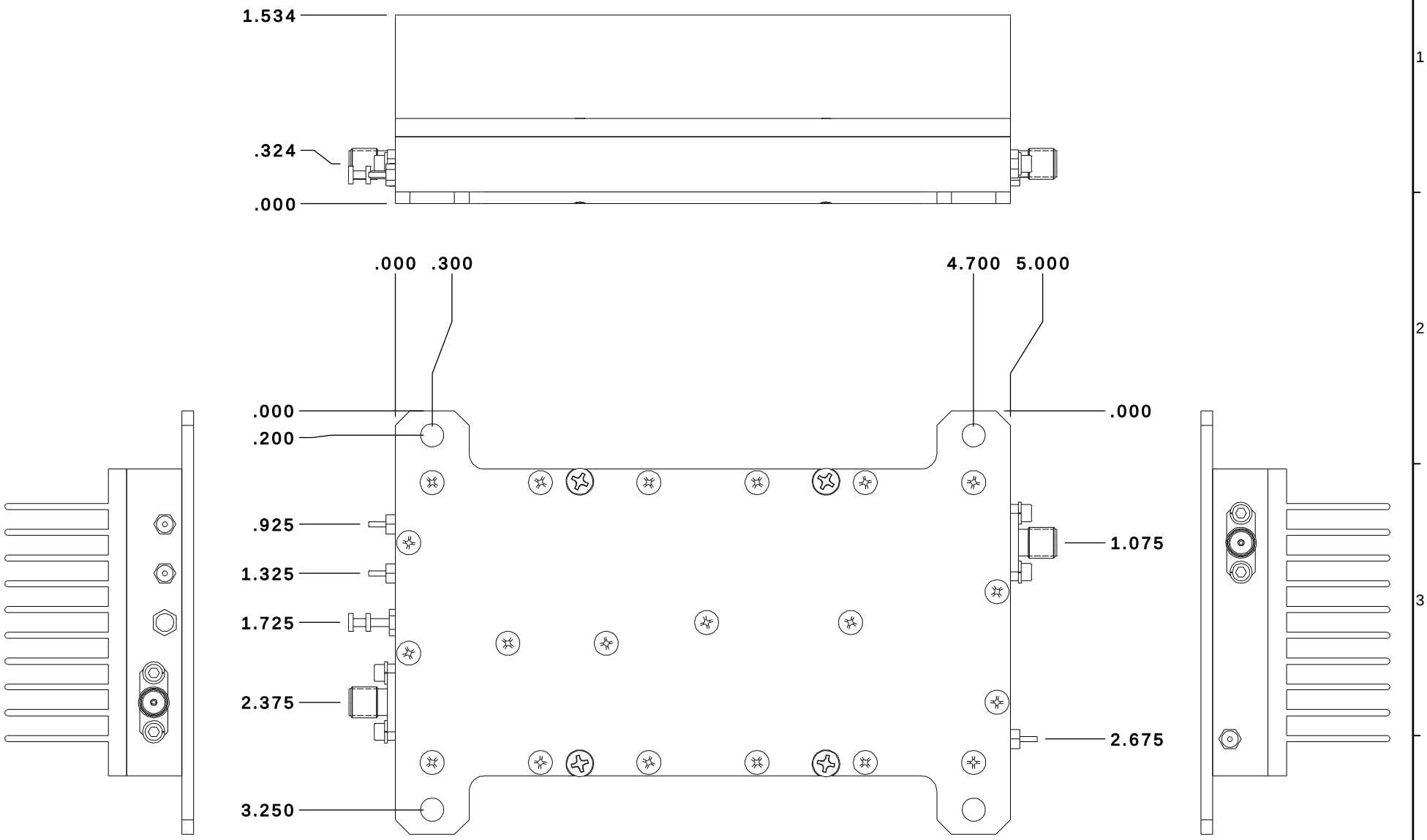
EAST BRUNSWICK, NJ 08816
855 - 558 - 1001

HOUSING OUTLINE DRAWING 142

SIZE	DWG NO.	REV
A	OL_142	0

SCALE: NONE	CAGE CODE 67DZ3	SHEET 1 OF 3

OPTIONAL HEATSINK



DRAWN	DMC	8/24/2015
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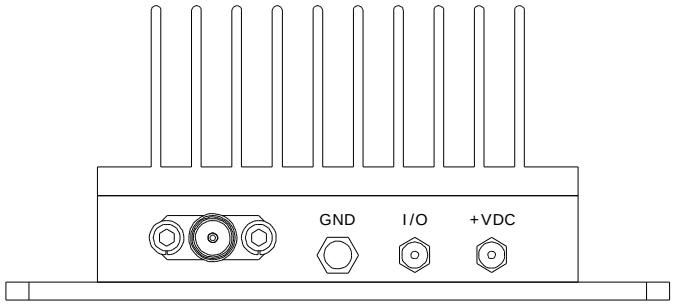
CHECKED		
ENG APPROVED		
MFG APPROVED		

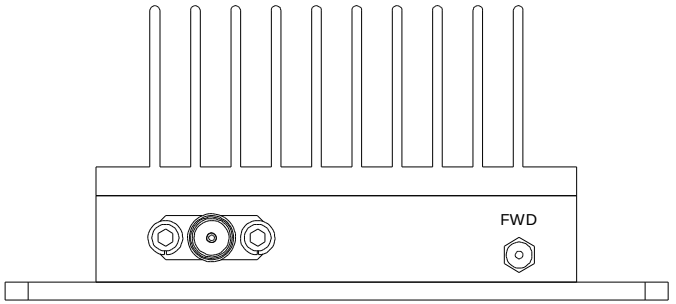
HOUSING OUTLINE DRAWING 142

SIZE	DWG NO.	REV
A	OL_142	0

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

DC CONNECTIONS





DC PINOUT		
PIN	FUNCTION	DESCRIPTION
1	GND	DC RETURN
2	I/O	TTL ON/OFF - HIGH = ON, LOW = OFF, NO CONNECTION = ON
3	+VDC	SUPPLY VOLTAGE - RANGE SPECIFIED IN DATA SHEET
4	FWD	FORWARD DETECTOR - RANGE SPECIFIED IN DATA SHEET

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DESIGNED	PA	5/18/2015
CHECKED		
ENG APPROVED		
MFG APPROVED		

HOUSING OUTLINE DRAWING 142

SIZE	DWG NO.	REV
A	OL_142	0

SCALE: NONE	CAGE CODE 67DZ3	SHEET 3 OF 3