Power Amplifiers

TA1088

2000-2300 MHz 50 W 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 / Reverse Voltage Protection
Reflected Power Measurement
Temperature Output
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	2000		2300	MHz
P1dB Power Output		+47.0		dBm
Gain	46.0	47.0		dB
Gain Flatness		1.0	1.5	dB [1]
Input Return Loss	-16	-18		dB
Operating Voltage	+11	+12	+13	VDC
Current Draw		14.0	15.0	A
Quiescent Current Draw		14.0		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
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TRIAD RF SYSTEMS

TA1088

2000-2300 MHz 50 W Power Amplifier

Mechanical		
Parameter	**Value**	**Unit**
Dimensions (L x W x H)	6 x 3.5 x 0.693	in
RF Connectors (Input / Output)	SMA-F / SMA-F	--
DC / Control Connector	7W2 Male	--
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	+85	°C
Humidity Range	0-100		%
Altitude	0-30,000		ft.
Shock / Vibration	MIL-STD-810 and equivalents		--
Max RF Input	+3		dBm
PA Baseplate Shutoff Temperature	+ 90		°C

Input/Output Pins		
Amplifier Connector Type:	7W2 Male	
Triad Cable Part Number:	CBL2	
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	NC	Not Connected
4	GND	Ground
5	NC	Not Connected
A2	+VDC	Supply Voltage - Range Specified in Datasheet

Configuration Options	
Model Number	**Description**
TA1088	No Heat Sink Included
TA1088 – HS	Standard Heat Sink
TA1088 – HSF	Heat Sink with Integrated Cooling Fan
TA1088 – HSX	Custom Heat Sink Configuration
TA1088 – D0X	Custom Amplifier Configuration (issued by Triad upon customer request)

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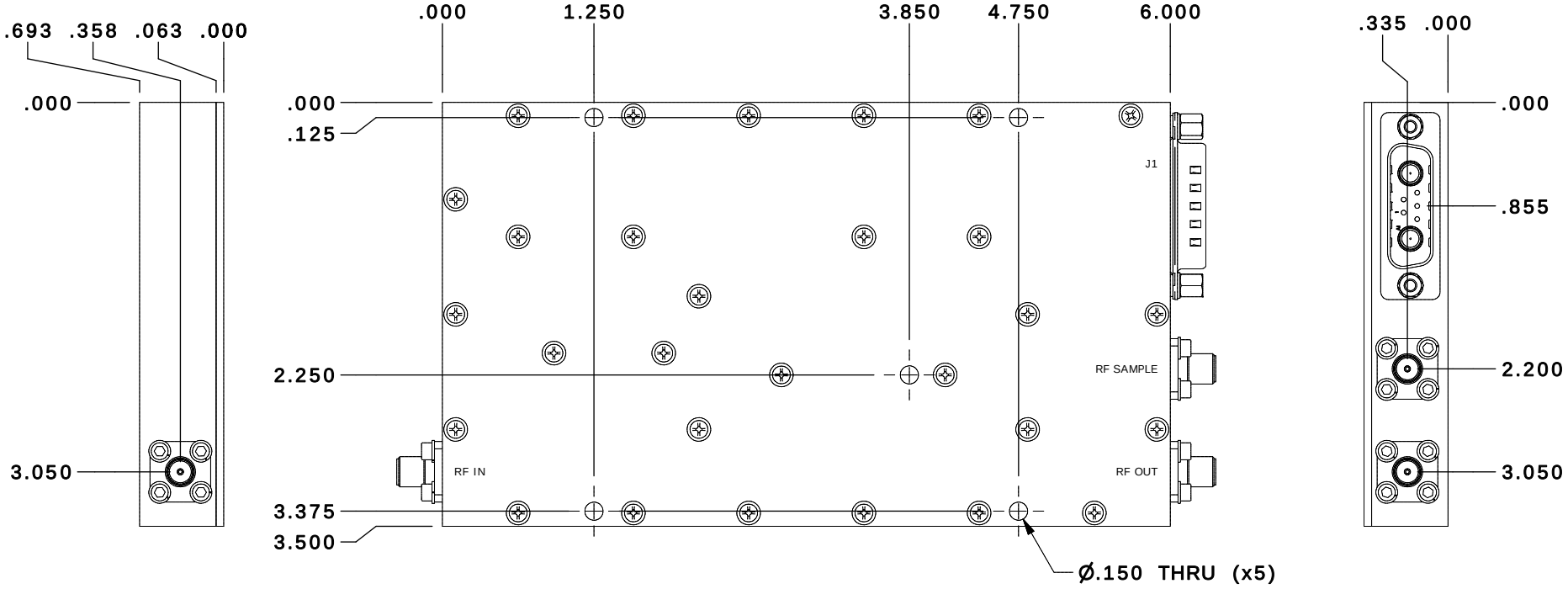
REVISIONS			
REV	DESCRIPTION	DATE	APPROVED
0	INITIAL RELEASE	8/2/12	DMC
1	ECN# 12-001	9/5/12	DMC
2	E18313	5/31/18	SC



DRAWN	DMC	8/2/2012
DESIGNED	DMC	6/27/2012
CHECKED	DMC	9/5/2012
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
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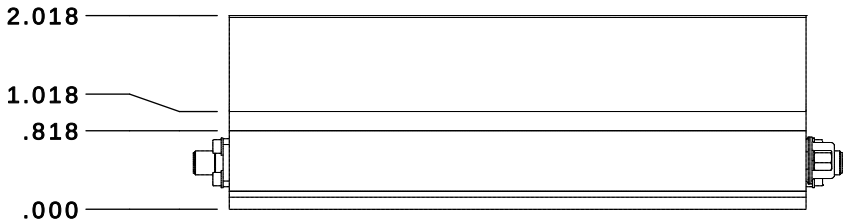
EAST BRUNSWICK, NJ 08816
855-558-1001

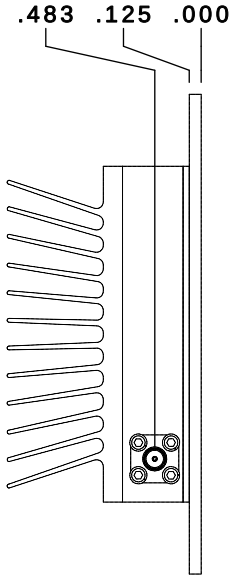
HOUSING OUTLINE DRAWING 107

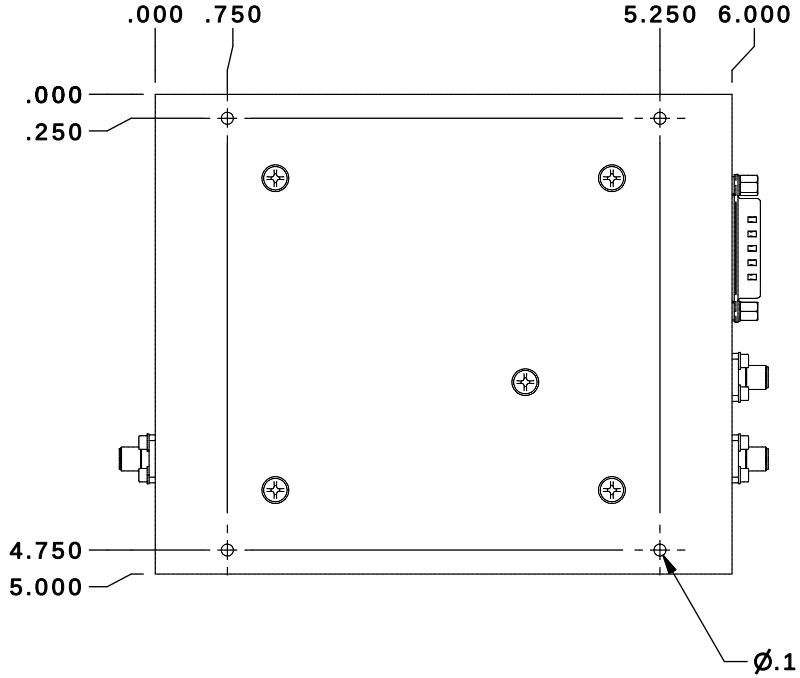
SIZE	DWG NO.	REV
A	OL_107	2

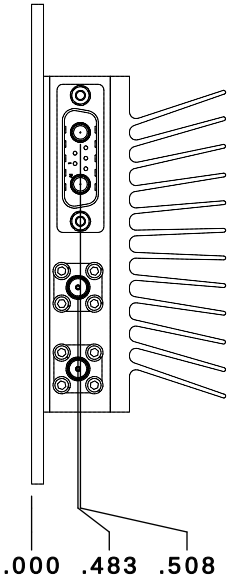
SCALE: NONE | CAGE CODE 67DZ3 | SHEET 1 OF 2

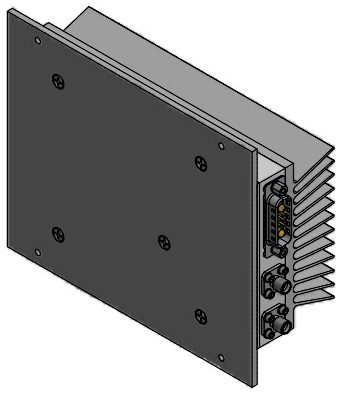
HEATSINK











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