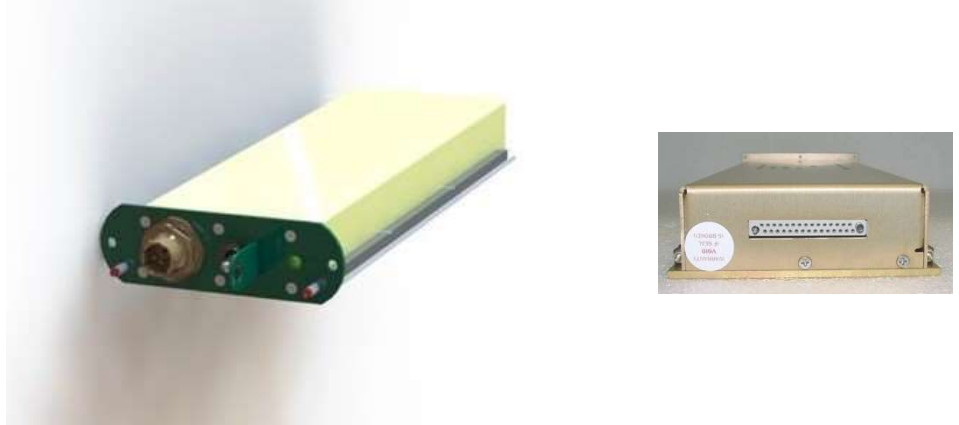


LT2402B

DC-DC Power Supply Module

(Document Rev B01, 12/14/20)



28Vdc Input, Quad Output, 107W Max Total

Market: Military Mil-Cots

Application: Defense Missile Communication

Features

- 28Vdc Input Power.
- Quad Output, 95W.
- Slide in rack module card with wedge locks.
- Mil-Std-461E *

* Designed to meet portions of this particular standard. Contact AEGIS Power Systems for specific details.

Table 1: Maximum Ratings

Parameter	Rating	Unit	Notes
Vin max range	19 to 36	Vdc	
Temperature Range	-40 to +80	°C	Operating
Output Power	107	W	All outputs combined.
Input power	137	W	Typical
+5Vdc output	50	W	
+3.3Vdc output	33	W	
+12Vdc output	12	W	
-12Vdc output	12	W	

Product Highlights

The LT2402BB is a pluggable slide-in module only 2" wide and 4.5" high. This input filtered dc-dc power converter module card has four factory set outputs (+5Vdc, +3.3Vdc, +12Vdc, and -12Vdc) at a combined total output of 107W. This custom solution works well as a Mil-cots military power supply for fiber optic modems. The LT2402BB is light weight and designed to meet portions of MIL-STD-461E requirements for EMI.

AEGIS Power Systems, Inc. specializes in the front end design, development, and manufacture of Rapid Response Custom Switching Power Supplies for Mil-COTS, defense, industrial, telecomm, aircraft, shipboard, rack mount, electric powered vehicle and other Mil-Cots military power supply applications. Contact Aegis for specific details on what military standards can be offered for your custom military power supply or converter.

SPECIFICATIONS

(Typical at 25°C, nominal line and 100% load, unless otherwise specified.)

Input voltage:	24-28Vdc Nominal, 19-36Vdc input range.
Input current:	Contact Aegis.
Input power:	137W Typical.
Output power:	107W all outputs combined. See Table 2.
Holdup time:	Contact Aegis.
Output voltages:	+5Vdc, +3.3Vdc, +12Vdc, & -12Vdc. See table 2 for details.
Efficiency:	78%.
Output ripple:	See table 2.
Current Limit:	Contact Aegis.
Start up time:	Contact Aegis.
Voltage set point:	Contact Aegis.
Line regulation:	Contact Aegis.
Load regulation:	Contact Aegis.
Temperature regulation:	Contact Aegis.
Temperature:	-40 °C to +80°C Operating, -55 to +125°C Non-Operating.
Cooling:	Cold Plate.
Package:	Enclosed Case, Pluggable Rack Module Card.
Dimensions:	(Refer to mechanical drawing).
Weight:	4.1 lbs. Typical.
Connector:	Input: Front Panel, 3 Pin, MS3124E12-3PY MIL-C-26482. (Pin Type). Output: Rear Panel, 30 Pin, WTB30SOR7SY-D54. (Socket Type).
Vibration:	Contact Aegis for details.
Shock:	Contact Aegis for details.
Humidity:	Contact Aegis for details.
EMI:	Designed to meet portions of MIL-STD-461E. Call for details.
Status:	PWR GOOD, Open Collector Output Low = Pwr OK, High (Open) = Pwr Fail

Specifications subject to change without notice.

Table 2: Voltage Outputs

LT2402BB	V1	V2	V3	V4
Voltage	+5Vdc	+3.3Vdc	+12Vdc	-12Vdc
Current	10A	10A	1A	1A
Power	50W	33W	12W	12W
Ripple	50Vpk-pk	50Vpk	150pk	150Vpk

Connector Pin Outs

Input Connector

Pin A	+Vdc In
Pin B	-Vdc In (Grd)
Pin C	No Connection

Output Connector

Pins 1, 2, 16, 17	+5Vdc
Pins 9,10,11	+5Vdc RTN
Pin 3	+5Vdc Sense (Pos)
Pin 4, 5, 19, 20	+3.3Vdc
Pin 12, 24, 25	+3.3Vdc RTN (Common Output Ground)
Pin 6	Power Good Status
Pin 7, 22	+12Vdc
Pin 26	+12Vdc RTN (Common Output Ground)
Pin 8, 23	-12Vdc
Pin 27	-12Vdc RTN (Common Output Ground)
Pin 13, 28	Reserved
Pin 14, 29	+28Vdc Filtered RTN
Pin 15, 30	+28Vdc Filtered
Pin 18	+3.3Vdc Sense (Pos)
Pin 21	Spare

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NOTES: UNLESS OTHERWISE SPECIFIED

1. INTERPRET DIMENSIONS AND TOLERANCES PER ASME Y14.100-2013.

DWG NO.		REV		REVISIONS	
ZONE	REV		DATE	APPROVED	
	A01	INITIAL RELEASE	2/23/17	TL	
	A02	CHANGE DIMENSION SCHEME	7/19/17	TL	
	A03	CHANGE DIMENSION SCHEME	7/25/17	TL	
	A04	CHANGE DIMENSION SCHEME	7/31/17	TL	
	B01	CHANGE DIMENSION SCHEME	4/28/20	TL	

AEGIS Power Systems, Inc.

CAGE: 06ES8

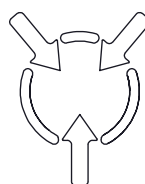
AEGIS P/N: LT2402B

APN: 18876-13720947

S/N:

NOTE :5
 FINISH: MARK PARTS WITH APN:18876-13720947.
 MARK IN APPROXIMATE LOCATION AS SHOWN.

CAUTION



SENSITIVE ELECTRONIC DEVICES

AEGIS POWER SYTEMS, INC. PROPRIETARY INFORMATION. NODISCLOSURE,
 REPRODUCTION, OR USE OF ANY PARTY HERE OF MAY BE MADE EXCEPT
 BY EXPRESS WRITTEN PERMISSION OF AEGIS POWER SYTEM, INC.

UNLESS OTHERWISE SPECIFIED:
 DIMENSIONS ARE IN INCHES
 TOLERANCES:
 FRACTIONAL ± N/A
 DEGREES: ± .5
 TWO PLACE DECIMAL ± .02
 THREE PLACE DECIMAL ± .005

NEXT ASSY	USED ON
APPLICATION	

MATERIAL SEE NOTE 2

FINISH SEE NOTE 3

DO NOT SCALE DRAWING

CONTRACT NO.		
APPROVALS	NAME	DATE
DRAWN	TL	2/23/17
CHECKED	MSM	
ENG APPR.		
MFG APPR.	JM	
Q.A.	MH	

AEGIS POWER SYSTEMS
 MURPHY, NORTH CAROLINA

TITLE:
 LT2402B MECH LAYOUT
 AEGIS P/N: LT2402B

SIZE B	FSCM NO. 06ES8	DWG. NO. LT2402B-M00	REV B01
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COMMENTS:
 SCALE: 1:1 SHEET 2 OF 2

8

7

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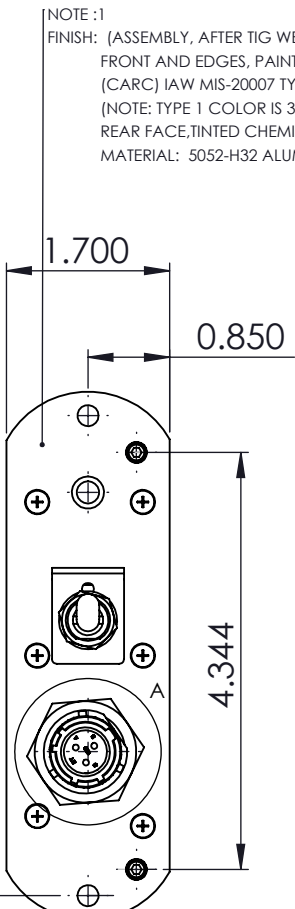
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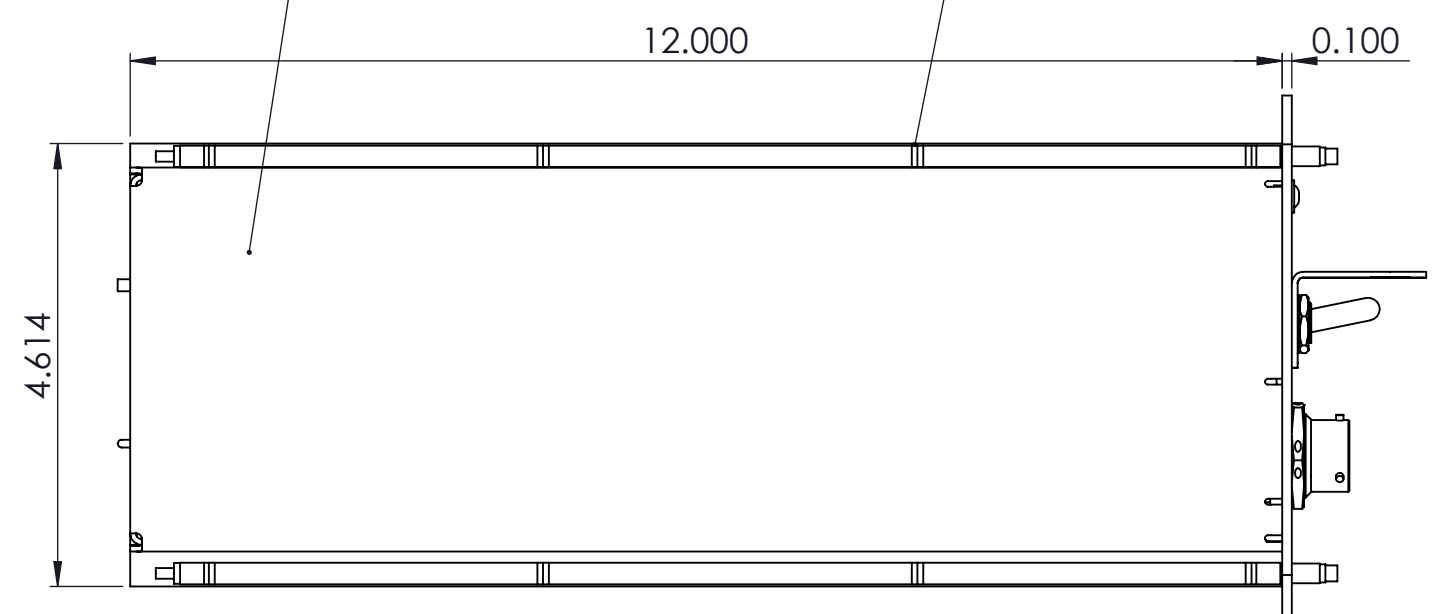
NOTES: UNLESS OTHERWISE SPECIFIED

1. INTERPRET DIMENSIONS AND TOLERANCES PER ASME Y14.100-2013.

DWG NO.		SH	REV	REVISIONS	
ZONE	REV			DATE	APPROVED
	A01		INITIAL RELEASE	2/23/17	TL
	A02		CHANGE DIMENSION SCHEME	7/19/17	TL
	A03		CHANGE DIMENSION SCHEME	7/25/17	TL
	A04		CHANGE DIMENSION SCHEME	7/31/17	TL
	B01		CHANGE DIMENSION SCHEME	4/28/20	TL

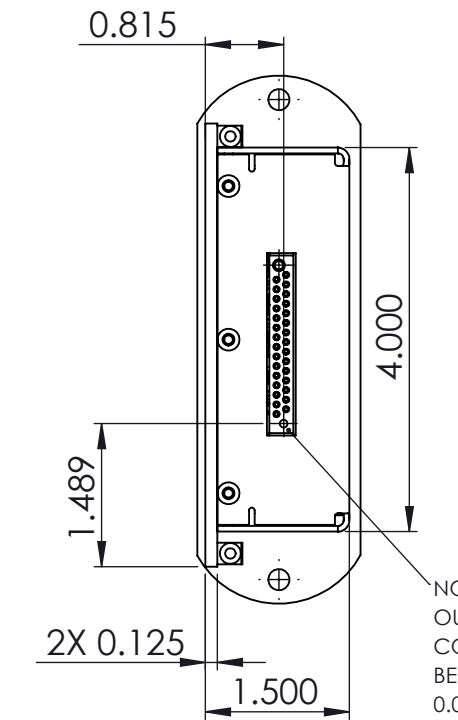


NOTE :1
 FINISH: (ASSEMBLY, AFTER TIG WELDING):
 FRONT AND EDGES, PAINT WITH CHEMICAL AGENT RESISTANT COATING (CARC) IAW MIS-20007 TYPE 1, CONDITION B, GRADE A.
 (NOTE: TYPE 1 COLOR IS 383 GREEN #34094)
 REAR FACE, TINTED CHEMICAL FILM PER MIL-DTL-5541, CLASS 1A.
 MATERIAL: 5052-H32 ALUMINUM ALLOY SHEET. 0.100" THICK.

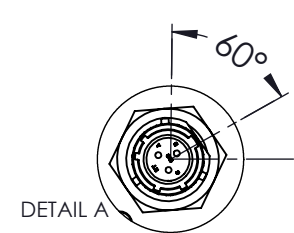


NOTE :2
 FINISH: TINTED CHEMICAL FILM PER MIL-DTL-5541, CLASS 1A.
 REMOVE ALL BURRS AND BREAK ALL SHARP EDGES.
 MATERIAL: 5052-H32 ALUMINUM ALLOY SHEET. 0.060" THICK.

NOTE:3
 FINISH: GOLD TINTED CHEMICAL FILM PER MIL-DTL-5541, CLASS 1A
 SURFACE A & B FLATNESS: SURFACES TO BE FLAT TO 0.010" T.I.R. WITH NOT MORE THAN 10% SPECIFICATION AREA OF CAVITATION, AND THE SURFACE SHALL BE FINISHED TO A ROUGHNESS OF NOT GREATER THAN 63U" R.M.S
 MATERIAL: 6061-T651 ALUMINUM ALLOY PER QQ-A-250/11.



NOTE:4
 OUTPUT CONNECTOR TO BE FLUSH WITHIN 0.01 ± .03 REAR SURFACE.



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UNLESS OTHERWISE SPECIFIED:	CONTRACT NO.
DIMENSIONS ARE IN INCHES	
TOLERANCES:	
FRACTIONAL ± N/A	
DEGREES: ± .5	
TWO PLACE DECIMAL ± .02	
THREE PLACE DECIMAL ± .005	
MATERIAL SEE NOTE 2	
FINISH SEE NOTE 3	
NEXT ASSY	USED ON
APPLICATION	DO NOT SCALE DRAWING

APPROVALS	NAME	DATE
DRAWN	TL	2/23/17
CHECKED	MVM	2/23/17
ENG APPR.	TL	2/23/17
MFG APPR.	JM	2/23/17
Q.A.	MH	2/23/17

AEGIS POWER SYSTEMS MURPHY, NORTH CAROLINA			
TITLE: LT2402B MECH LAYOUT			
AEGIS P/N: LT2402B			
SIZE B	FSCM NO. 06ES8	DWG. NO. LT2402B-M00	REV B01
SCALE: 1:2		SHEET 1 OF 2	