

LT2402

DC-DC Power Supply Module

(Document Rev A04, 04/23/18)



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 LT2402 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 LT2402 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:	Length =12.1", Width = 2.0", Height = 4.5".
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

LT2402	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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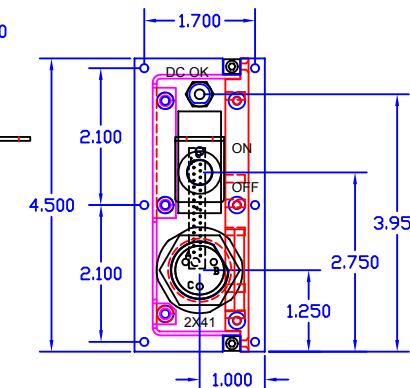
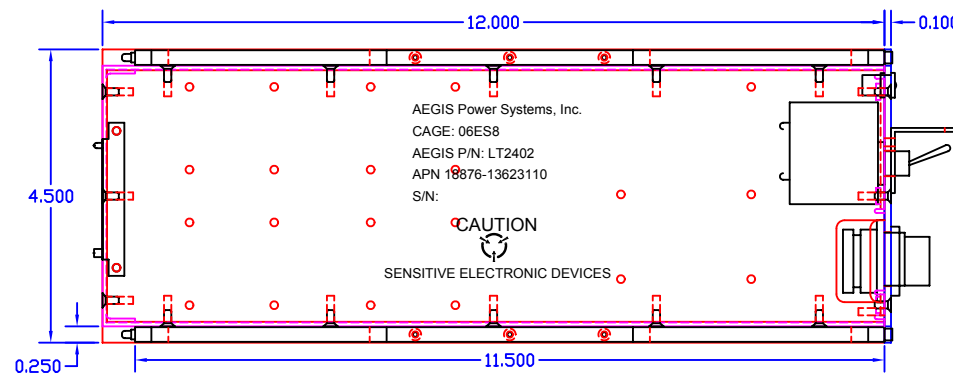
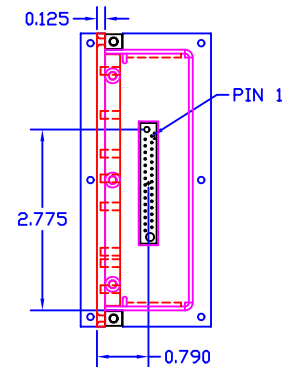
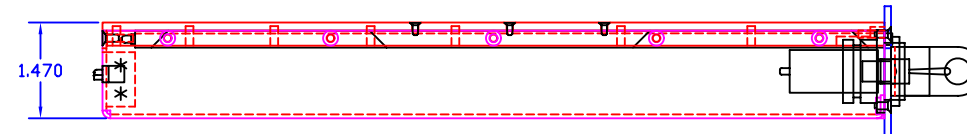
DWG NO.	SH	REV
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REVISIONS				
ZONE	REV	DESCRIPTION	DATE	APPROVED
	A01	INITIAL RELEASE	XX/XX/XX	JFS
	A02	ROTATED INPUT CDN 120 DEG CCW	06/09/05	JFS
	A03	REDUCED COVER HEIGHT BY 0.030"	11/03/05	JFS

NOTES: UNLESS OTHERWISE SPECIFIED

- 1. INTERPRET DIMENSIONS AND TOLERANCES PER ANSI Y14.5M-1994.
- 2. MATERIAL:
- 3. FINISH:

CAD MAINTAINED. CHANGES SHALL BE INCORPORATED BY THE DESIGN ACTIVITY.



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UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN INCHES. TOLERANCES ARE:		
FRACTIONS	DECIMALS	DEGREES
± N/A	± .02	± .5
	± .005	
MATERIAL	SEE NOTE 2	
FINISH	SEE NOTE 3	
DO NOT SCALE DRAWING		

CONTRACT NO.		AEGIS POWER SYSTEMS MURPHY, NORTH CAROLINA	
APPROVALS	DATE	TITLE	
DRAWN JFS	11/03/05	LT2402 MECH LAYOUT	
CHECKED		AEGIS P/N: LT2402	
PRD. ENG.		SIZE	FSCM NO.
MFG.		D	06ES8
QUALITY		DWG NO.	REV
		LT2402-M00	A03
		SCALE 1/1	SHEET 1 OF 1

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