

# LT2402

## DC-DC Power Supply Module

(Document Rev A03, 09/29/15)



### 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 swage 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.)**

<b>Input voltage:</b>	24-28Vdc Nominal, 19-36Vdc input range.
<b>Input current:</b>	Contact Aegis.
<b>Input power:</b>	137W Typical.
<b>Output power:</b>	107W all outputs combined. See Table 2.
<b>Holdup time:</b>	Contact Aegis.
<b>Output voltages:</b>	+5Vdc, +3.3Vdc, +12Vdc, & -12Vdc. See table 2 for details.
<b>Efficiency:</b>	78%.
<b>Output ripple:</b>	See table 2.
<b>Current Limit:</b>	Contact Aegis.
<b>Start up time:</b>	Contact Aegis.
<b>Voltage set point:</b>	Contact Aegis.
<b>Line regulation:</b>	Contact Aegis.
<b>Load regulation:</b>	Contact Aegis.
<b>Temperature regulation:</b>	Contact Aegis.
<b>Temperature:</b>	-40 °C to +80°C Operating, -55 to +125°C Non-Operating.
<b>Cooling:</b>	Cold Plate.
<b>Package:</b>	Enclosed Case, Pluggable Rack Module Card.
<b>Dimensions:</b>	Length =12.1", Width = 2.0", Height = 4.5".
<b>Weight:</b>	4.1 lbs. Typical.
<b>Connector:</b>	Input: Front Panel, 3 Pin, MS3124E12-3PY MIL-C-26482. (Pin Type). Output: Rear Panel, 30 Pin, WTB30SOR7SY-D54. (Socket Type).
<b>Vibration:</b>	Contact Aegis for details.
<b>Shock:</b>	Contact Aegis for details.
<b>Humidity:</b>	Contact Aegis for details.
<b>EMI:</b>	Designed to meet portions of MIL-STD-461E. Call for details.
<b>Status:</b>	PWR GOOD, Open Collector Output Low = Pwr OK, High (Open) = Pwr Fail

Specifications subject to change without notice.

**Table 2: Voltage Outputs**

<b>LT2402</b>	<b>V1</b>	<b>V2</b>	<b>V3</b>	<b>V4</b>
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

<b>Pin A</b>	<b>+Vdc In</b>
<b>Pin B</b>	<b>-Vdc In (Grd)</b>
Pin C	No Connection

### Output Connector

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

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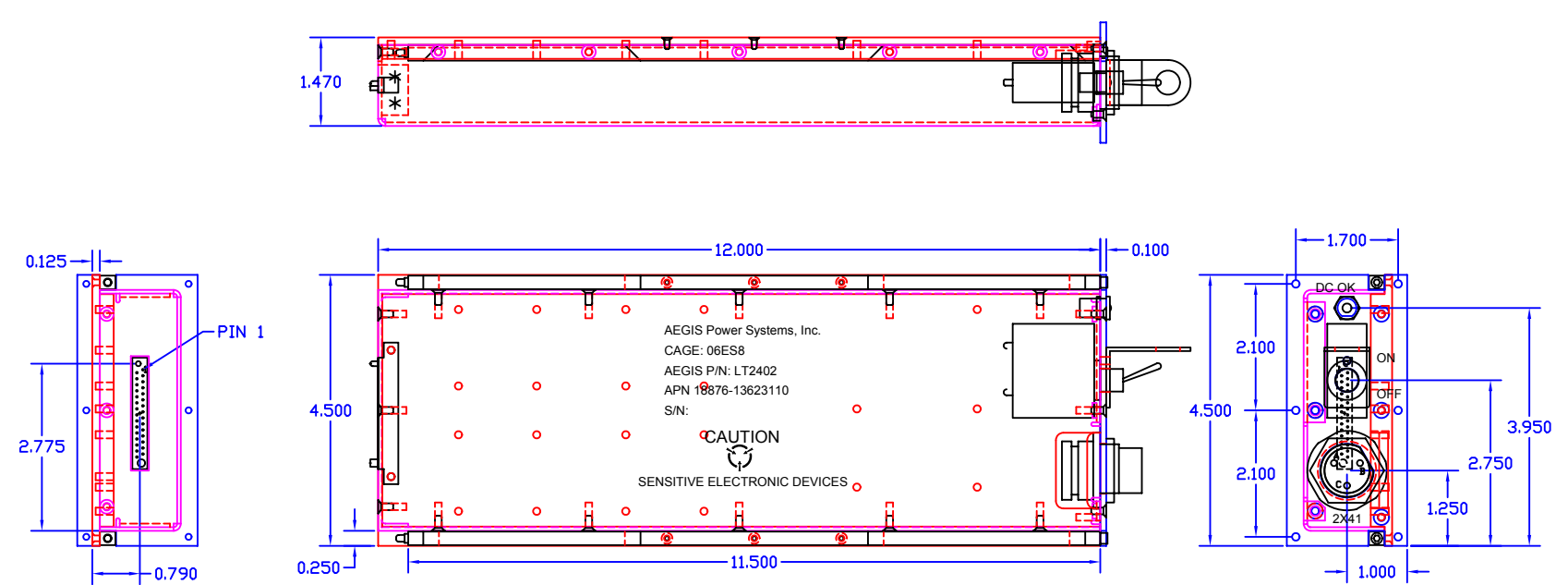
DWG NO.	SH	REV
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REVISIONS				
ZONE	REV	DESCRIPTION	DATE	APPROVED
	A01	INITIAL RELEASE	XX/XX/XX	JFS
	A02	ROTATED INPUT CDN 120 DEG CCW	06/09/05	JFS
	A03	REDUCED COVER HEIGHT BY 0.030"	11/03/05	JFS

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 .XX ± .02 ± .5 XXX ± .005		CONTRACT NO.		AEGIS POWER SYSTEMS MURPHY, NORTH CAROLINA	
MATERIAL SEE NOTE 2		APPROVALS	DATE	TITLE LT2402 MECH LAYOUT	
FINISH SEE NOTE 3		DRAWN	JFS 11/03/05	AEGIS P/N: LT2402	
NEXT ASSY	USED ON	CHECKED		SIZE	FSCM NO.
		PRD. ENG.		D	06ES8
APPLICATION		MFG.		DWG NO.	REV
DO NOT SCALE DRAWING		QUALITY		LT2402-M00	A03
				SCALE	SHEET
				1/1	1 OF 1

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