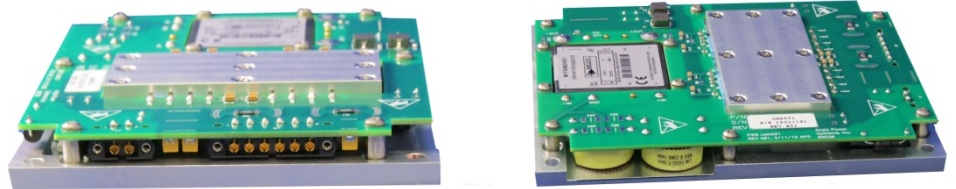


LMA501

DC-DC Power Converter Card

(Document Rev A03, 12/12/15)



**270Vdc Input
28Vdc Output, 750W Max Output**

Features

- 270Vdc per MIL-STD-704E/F*
- 28Vdc Output, 750W max
- MIL-STD-810F Environmental *
- MIL-STD-461E EMI *

Table 1: Maximum Ratings

| Parameter | Rating | Unit | Notes |
|---------------------|------------|------|--------------------------|
| Vin max range | 250 to 375 | Vdc | |
| Temperature | -40 to +85 | °C | Baseplate temperature |
| +28Vdc output power | 750 | W | |
| Input power | 805 | W | @750W out (270VDC input) |

* Designed to meet portions of the standard. Contact Aegis Power for details.

Product Highlights

This compact, low-profile LMA501 power card with 28Vdc output at 750W, is a COTS military power supply solution designed to meet portions of MIL-STD-810F vibration and shock requirements and designed to meet portions of the MIL-STD-461E EMI requirements. This rugged, easy to mount supply provides 750W of power with 93% typical efficiency. The LMA501 is designed as a complement to the VME550 series of rack-mounted 28Vdc power cards. Additionally, the LMA501 can also be configured with other output voltages (12Vdc, 24Vdc and 48Vdc) and it is designed to be paralleled for higher power capabilities. Contact Aegis Power Systems for custom configurations.

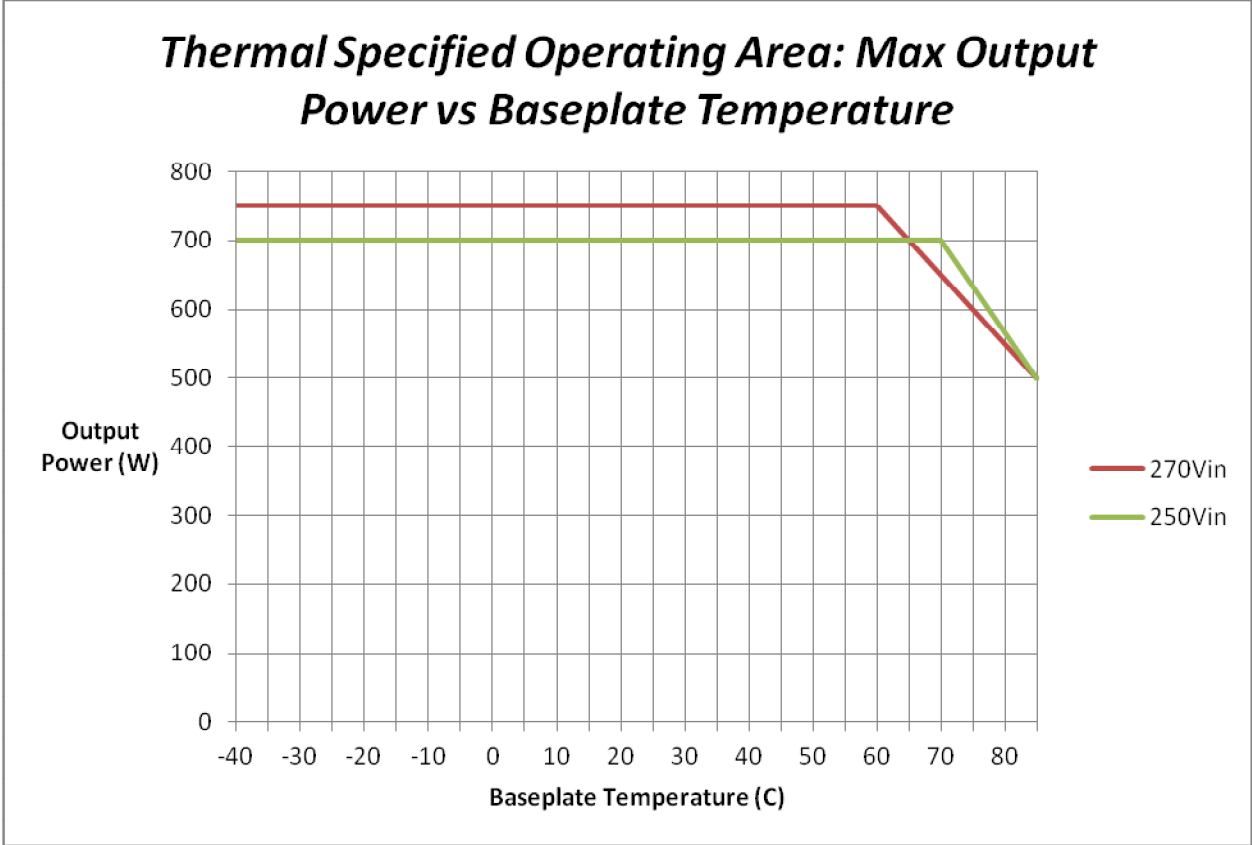
AEGIS Power Systems specializes in the front end design, development, and manufacture of Rapid Response Custom Switching Power Supplies for defense, industrial, telecommunication, electric powered vehicle and Mil-Cots military power supply applications. Contact Aegis Power Systems for details on Mil-Specs that this product is designed to meet.

SPECIFICATIONS

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

| | |
|--|--|
| DC input voltage: | Designed to meet MIL-STD-704E/F, continuous operation 250Vdc to 375Vdc, 270 Vdc nominal. |
| DC input line current: | 2.98A typical @ 270Vdc input (750W out). |
| Input power: | 805W max @ 750W out, 550W max @ 500W out. |
| Output power: | 750W max (see Figure 1) |
| Output voltage: | 28 Vdc |
| Efficiency: | 90% minimum, 93% typical. |
| Start up time: | 500 millisecond maximum. |
| Output voltage set point: | +/-0.5% |
| Line/Load regulation: | -6% |
| Output Voltage Temperature Coefficient: | -5mv / °C |
| Output ripple: | 800mV pk-pk Max. (20 MHz BW) |
| Current Limit: | Short circuit protected with automatic recovery. |
| Temperature: | -40°C to +85°C Operating baseplate temperature -55°C to +100°C Non-operating. |
| Cooling: | Conduction cooling through baseplate |
| Dimension: | 4.5" x 6" x 0.75" |
| Weight: | 1.36 lb. Typical. |
| Connector: | (see pin assignments page). |
| Vibration: | Designed to meet MIL-STD-810F, Method 514.5, Procedure I. |
| Shock: | Designed to meet MIL-STD-810F, Method 516.5, Procedure I. |
| Humidity: | 0 – 95% non-condensing. |
| EMI: | Designed to meet MIL-STD-461E (CE101, CE102, and CS101). |

Figure 1:



Connector Pin Out Assignment

J1 Input Connector Harwin P/N M80-5000000M5-02-332-000-000

| | |
|-------|-------------|
| Pin 1 | Input RTN |
| Pin 2 | +270V Input |

J2 Output Connector Harwin P/N M80-5000000M5-06-332-000-000

| | |
|-------------|-----------|
| Pin 1, 2, 3 | +28 Vdc |
| Pin 4, 5, 6 | +28 V RTN |

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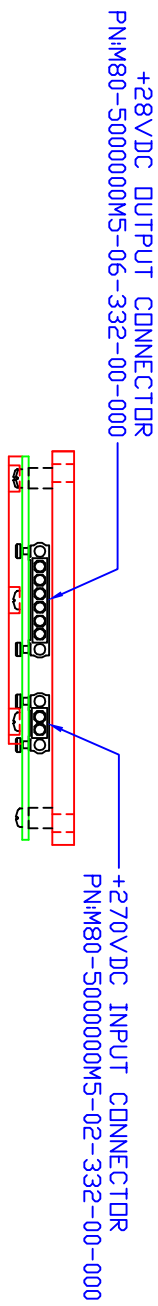
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| DWG NO. | | REV | | DATE | | APPROVED | |
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| ZONE | REV | DESCRIPTION | DATE | APPROVED | DATE | APPROVED | |
| A01 | INITIAL RELEASE | | XX/XX/XX | MVM | | | |

NOTES: UNLESS OTHERWISE SPECIFIED

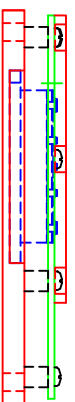
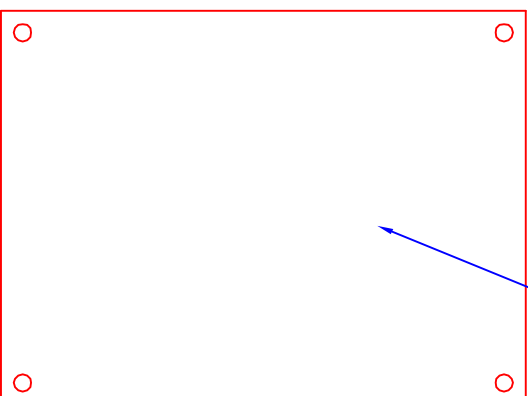
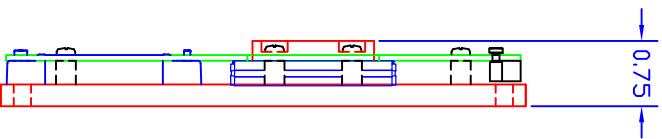
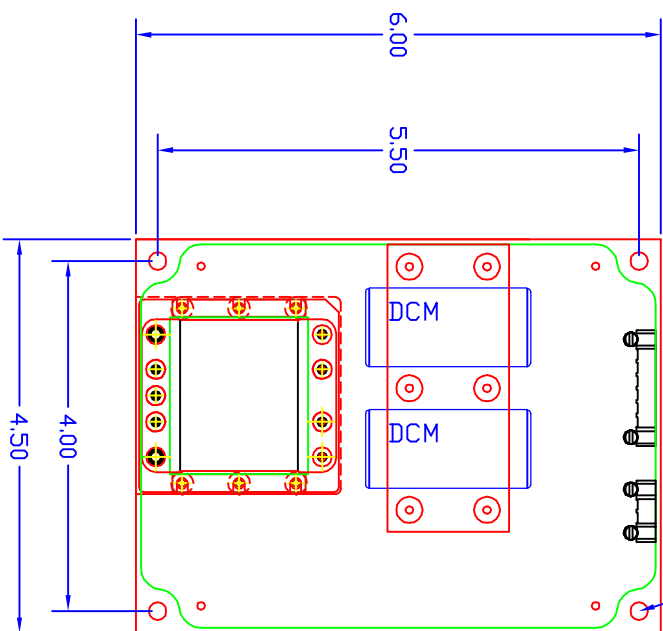
- 1. INTERPRET DIMENSIONS AND TOLERANCES PER ANSI Y14.5M-1994.
- 2. MATERIAL:
- 3. FINISH:



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

4X MOUNTING HOLES

SURFACE TO INTERFACE WITH COUPLATE.



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| | | | |
|--|----------|--------------|---------------------------|
| UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN INCHES. FRACTIONS DECIMALS AND DECIMALS INCHES | | CONTRACT NO. | |
| * N/A | XX ± .02 | XXX ± .005 | ± .5 |
| MATERIAL: SEE NOTE 2 | | APPROVALS: | |
| FINISH: SEE NOTE 3 | | DRAWN: MVM | DATE: 08/18/11 |
| NEXT ASSY: USED ON: | | CHECKED: | TITLE: LMA501 MECH LAYOUT |
| APPLICATION: DO NOT SCALE DRAWING | | TRBL: ENG: | AEGIS P/N: LMA501 |
| | | WFG: | SIZE: F30H NO. D 06ES8 |
| | | QUALITY: | DWG NO: LMA501-M00 |
| | | | SCALE: 1/1 |
| | | | REV: A01 |
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