LT2402

DC-DC
Power Supply Module

(Document Rev A04, 04/23/18)

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.

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.

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Rating</th>
<th>Unit</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vin max range</td>
<td>19 to 36</td>
<td>Vdc</td>
<td></td>
</tr>
<tr>
<td>Temperature Range</td>
<td>–40 to +80</td>
<td>°C</td>
<td>Operating</td>
</tr>
<tr>
<td>Output Power</td>
<td>107 W</td>
<td></td>
<td>All outputs combined.</td>
</tr>
<tr>
<td>Input power</td>
<td>137 W</td>
<td></td>
<td>Typical</td>
</tr>
<tr>
<td>+5Vdc output</td>
<td>50 W</td>
<td></td>
<td></td>
</tr>
<tr>
<td>+3.3Vdc output</td>
<td>33 W</td>
<td></td>
<td></td>
</tr>
<tr>
<td>+12Vdc output</td>
<td>12 W</td>
<td></td>
<td></td>
</tr>
<tr>
<td>-12Vdc output</td>
<td>12 W</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
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.


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

<table>
<thead>
<tr>
<th></th>
<th>V1</th>
<th>V2</th>
<th>V3</th>
<th>V4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Voltage</td>
<td>+5Vdc</td>
<td>+3.3Vdc</td>
<td>+12Vdc</td>
<td>-12Vdc</td>
</tr>
<tr>
<td>Current</td>
<td>10A</td>
<td>10A</td>
<td>1A</td>
<td>1A</td>
</tr>
<tr>
<td>Power</td>
<td>50W</td>
<td>33W</td>
<td>12W</td>
<td>12W</td>
</tr>
<tr>
<td>Ripple</td>
<td>50Vpk-pk</td>
<td>50Vpk</td>
<td>150pk</td>
<td>150Vpk</td>
</tr>
</tbody>
</table>

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
NOTES: UNLESS OTHERWISE SPECIFIED
2. MATERIAL:
3. FINISH

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3. FINISH

DIMENSIONS ARE IN INCHES UNLESS OTHERWISE SPECIFIED,
N/A .02
DECIMALS TOLERANCES ARE:
.005
± .5

FINISH:
3.