VITA 62 Compliant 3U Power Supply for Air or Conduction Cooled Systems

Features

- True 6 Channel supply provides full Open VPX support
- Available in Air cooled, Bulkhead conduction cooled, and Reverse Side Wedge lock conduction cooled models
- Up to 400 Watts power output with 1 inch pitch form factor
- Onboard embedded RuSH™ technology actively monitors voltage, current, temperature and provides protective control
- Factory programmable power sequencing of all voltage rails
- Shutdown control for each power rail
- Over Voltage, Over Current, and Over Temp protection
- Current/Load share compatible with up to 4 PSC-6234 units
- I2C interface for Status & Control
- Standard INH# and EN# power control signals
- VBAT for support of VPX memory backup power bus
- Front I/O panel includes LED status indicator, USB port for firmware upgrade and VBAT battery access
- VITA48.2 Compliant Inject / Eject levers for easy installation

Overview

Dawn’s VITA 62 Compliant PSC-6234 is designed to operate in a military environment over a wide range of temperatures at high power levels. Models available include air cooled, conduction to wedge lock cooled and conduction to bulkhead cooled, applications and configurations.

Dawn’s embedded RuSH™ (Rugged System Health Monitor) technology provides the “smarts” for monitoring and control of critical system performance parameters including Voltage, Current, Temperature and control of power sequencing and shutdown of all voltage rails.

Custom firmware enables additional features such as monitoring shock /vibration events or customer specified monitoring windows, power sequencing, alerts, alarms, status and control, etc.

The RuSH™ monitor is interfaced into the OpenVPX (I2C) management plane, providing an I2C communication link with system cards.

Optional LED / Status / Power Good output.

Specifications

Mechanical
- Extended Shock and Vibration Per MIL-STD-810F
- Card Guide style and Mounting: .062 PCB or VITA 48.2 Wedge Locks
- Connector: VITA 62 Compliant power connector TE 6450849-7
- Dimensions: Standard 1” Conduction cooled form factor
- Weight: 1.65 Lbs/ 0.7478 Kg.
- Inject & Eject: VITA 48.2 compliant inject and eject features
- Covers: ESD protected inputs and robust covers on both sides of the board, accommodate military two-level maintenance

Electrical
- MIL-STD-704F: 50 mSec holdup Caps provided on separate module
- Input Voltage: 18-36VDC, 36-75VDC
- Voltage Rails: +12V (PO1), +3.3V (PO2), +5V (PO3), +12V_AUX, -12V_AUX, 3.3V_AUX, VBAT (+3.0V typical)
- Output Current for Each Voltage Rail:

<table>
<thead>
<tr>
<th>Voltage</th>
<th>Max Output Current (Amps) for each channel</th>
</tr>
</thead>
<tbody>
<tr>
<td>24V/48V</td>
<td>16.7</td>
</tr>
</tbody>
</table>

- Wattage Max +5V rail: 200W@28 or 48 V input
- Wattage Max +12V rail: 200W@28 or 48 V input
- Total Maximum Power: 400W@28 or 48 V input
- Ripple: <45mVp-p on +3.3V and +5V, <2mVp-p on +12V and -12V
- Isolation Voltage: Input to Output (1500V)

Environmental
- Storage Temperature: -40°C to +100°C
- Operating Temperature: -40°C to +85°C (at the Wedge lock edge)

Power supply output dependant on chassis cooling capability
Ordering Information
P/N 06-1016234-WXYZ

<table>
<thead>
<tr>
<th>W = Power Input</th>
<th>X = Cooling/Coating Option</th>
<th>Y = Firmware Options</th>
<th>Z = Special Options</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 = Not Available</td>
<td>A = Air Cooled, No Conformal Coat</td>
<td>1 = Standard Firmware</td>
<td>0 = None</td>
</tr>
<tr>
<td>2 = 28VDC Nominal</td>
<td>B = Conduction to Bulkhead, No Conf. Coat</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3 = 48VDC Nominal</td>
<td>W = Conduction to Wedge Lock, No C. Coat</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4 = Not Available</td>
<td>1 = Air Cooled, Conformal Coated</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5 = Not Available</td>
<td>2 = Conduction to Bulkhead, Conformal Coated</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6 = Not Available</td>
<td>3 = Conduction to Wedge Lock, Conformal Coated</td>
<td></td>
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</tbody>
</table>

Note: AC input option is available with Dawn P/N 06-1016236.

Backplane connector mate is:
Tyco P/N = 1-6450869-4

Factory select options below provide extended capability beyond the VITA 62 specification. Available on request.

Other Products from Dawn:
Card cages and enclosures for commercial, aerospace and military applications
Enclosure 3D solid model design, manufacturing and production from commercial to full-rugged conduction cooled military
Custom and Standard product PCB design, layout, production
RuSH™ Rugged system health monitor
Backplanes for cPCI 2.1, cPCI 2.16, VME, VME64x, VXI, VXS, VPX, CUSTOM, Build to Print Powered Enclosures for Development, Prototype, Production, Deployment Prototype Boards, Extender Boards, Form Factor Extenders, Front Panels, Filler Panels, Custom Panels, Build to Print Panels, Build to print machining, fabrication and assembly