VITA 62 Compliant 800 Watt 3U Power Supply for Conduction Cooled Systems

Features
♦ True 6 Channel supply provides full Open VPX support
♦ Wedge lock conduction cooled module
♦ Up to 800 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-6238 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 3-color LED status indicator, VBAT battery access
♦ USB port for status display, access menu control and firmware upgrade.
♦ VITA48.2 Compliant Inject / Eject levers for easy installation

Overview
Dawn’s VITA 62 Compliant PSC-6238 is designed to operate in a military environment over a wide range of temperatures at high power levels.

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. Onboard real-time clock and switchable Battleshort and NED (Nuclear Event Detect) functions.

Embedded product serial number, power-on hours and number of power cycles.

Custom firmware enables additional features such as monitoring humidity, shock /vibration events or customer specified monitoring windows, power sequencing, alerts, alarms, status and control, event logging, 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: VITA 48.2 Wedge Locks
Connector: VITA 62 Compliant power connector TE 6450849-7
Dimensions: Standard 1” Conduction cooled form factor
Weight: 2.181 Lbs / 0.9892 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
Input Voltage: 18-36VDC
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:
- Wattage Max +5V rail: 400W@28V (All 3.3V & 5V not to exceed 400W)
- Wattage Max +12V rail: 504W@28V (All 12V & -12V not to exceed 504W)
- Total Maximum Power: 800W@28V
- Ripple: <50mVp-p on +3.3V and +5V, <2mVp-p on +12V and -12V
- Isolation Voltage: Input to Output (2250V)

EMI Tested to MIL-STD-461G - CE102

Environmental
Storage Temperature: -40°C to +100°C (optional -55C to 125C)
Operating Temperature: -40°C to +85°C (at the Wedge lock edge)

Power supply output dependant on chassis cooling capability
Ordering Information
P/N 06-1016238-WXYZ

W = Power Input
2 = 28VDC Nominal

X = Cooling/Coating Option
W = Conduction to Wedge Lock, No C. Coat
3 = Conduction to Wedge Lock, Conformal Coated

Y = Firmware Options
1 = Standard Firmware
0 = None

Z = Special Options

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

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

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

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