

VITA 62 Compliant 3U Power Supply for Conduction Cooled Systems



Features

- ◆ True 6 Channel supply provides full Open VPX support
- ◆ Available in Air cooled, Bulkhead conduction cooled, and 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 share compatible with additional 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 over a wide range of temperatures at high power levels. Models are available for air cooled, conduction to bulkhead cooled, and conduction to wedge lock cooled applications and configurations.

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

Custom firmware enables additional features such as monitoring humidity, 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. FAL# and DEG# status output for direct system alert. Optional LED / Status / Power Good output. Custom power capacity and voltage input range configurations available. Contact factory for additional information.

Specifications

Mechanical

Extended Shock and Vibration Per MIL-STD-810F

Card Guide style and Mounting: Wedge Locks

Connector: VITA 62 Compliant power connector

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 covers on both sides of the board, accommodate military two-level maintenance

Electrical

PCB Design: 10-Layer, 2 oz. copper, high performance

Input Voltage: 18-36VDC, 36-75VDC

Voltage Rails: +12V (VS1), +3.3V (VS2), +5V (VS3), Aux+12V, Aux-12V, Aux+3.3V, VBAT (+3.0V typical)

Output Current for Each Voltage Rail:

Input	Max Output Current (Amps) for each channel					
Voltage	12V(VS1)	3.3V(VS2)	5V(VS3)	AUX_3.3	AUX_+12	AUX_-12
24V/48V	16.7	30	40	4	4	3

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

W = Power Input

1 = 12VDC Nominal
2 = 28VDC Nominal
3 = 48VDC Nominal
4 = 120VAC, 47-400Hz
5 = 240VAC, 47-400Hz
6 = 90-264VAC, 47-400Hz

X = Cooling/Coating Option

A = Air Cooled, No Conformal Coat 1 =
B = Conduction to Bulkhead, No Conf. Coat 2 =
W = Conduction to Wedge Lock, No C. Coat
1 = Air Cooled, Conformal Coated
2 = Conduction to Bulkhead, Conformal Coated
3 = Conduction to Wedge Lock, Conformal Coated

Y = Firmware Options

1 = Standard Firmware
2 = Custom, Includes Humidity

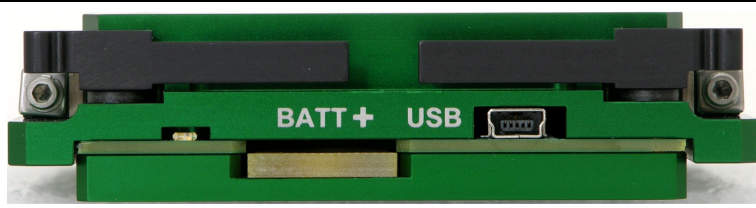
Z = Special Options

0 = None

Note: AC and 12VDC Nominal input option not available with this P/N



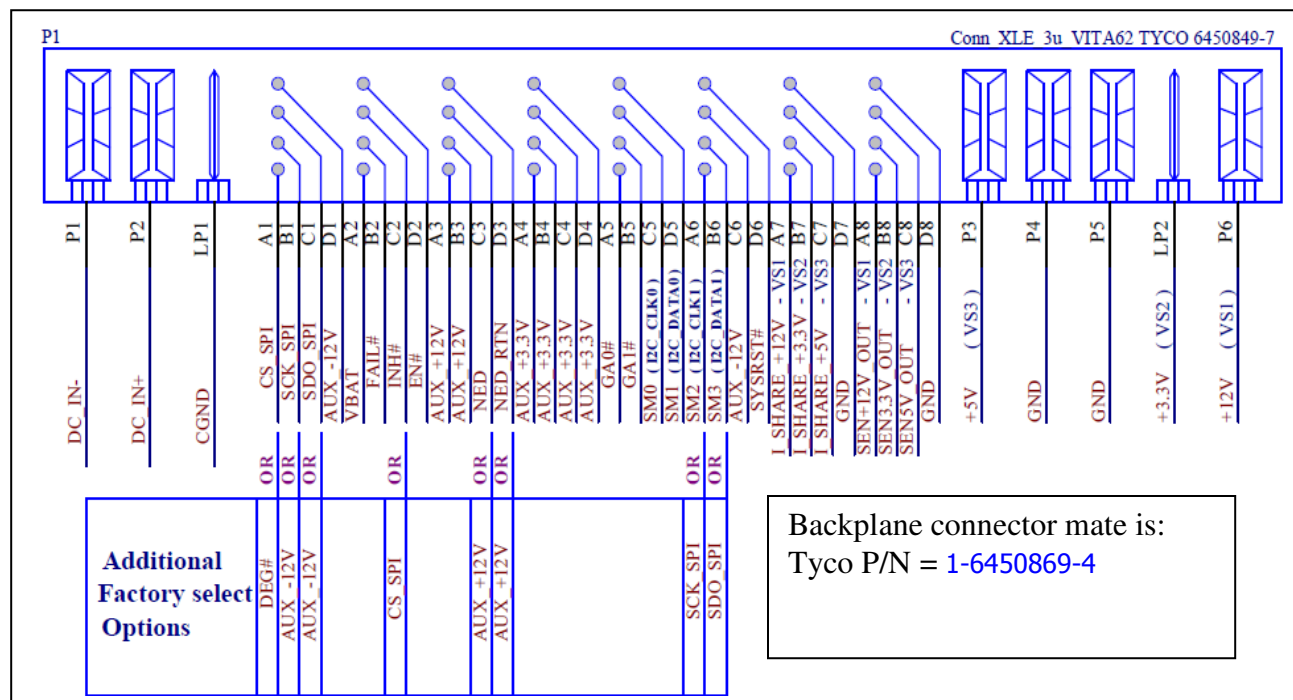
**W Cooling
Option Shown
Side View**



W Cooling Option Shown
Front Panel View shows
 battery, USB connector and
 ejectors

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

(Connector pin out – VITA 62 Compliant – Card Connector Face View)



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