VITA 62 6U Power Supply: Model PSC-6265

Dawn VME Products®

Another Performance Design from the Team at Dawn

VITA 62 Compliant 6U Power Supply for Conduction Cooled Systems

OpenVPX

Features

- Up to 580W Continuous over temperature range of -40C to +85C
- True 6 Channel supply provides full Open VPX support
- Secondary Side Wedge lock conduction cooled
- 6U, 1 inch pitch form factor
- Compatible with Dawn's HLD-6262 Holdup Module
- Fault monitoring and control
- Output over-voltage, over-current, and over-temperature shutdown protection
- Current/Load share compatible with up to 3 PSC-6265 units
- Standard INHIBIT*, ENABLE*, FAIL* and SYSRESET* control signals
- VBAT for support of VPX memory backup power bus
- Front I/O panel includes LED status indicator, and VBAT battery access
- VITA 48.2 Compliant Inject / Eject levers for easy installation

Overview

Dawn's VITA 62 compliant 6U PSC-6265 can operate continuously in diverse environments over a wide range of temperatures at high power levels. The standard model is conduction to wedge lock cooled with an operating temperature range of -40C to +85C and a non-operating range of -55C to +105C.

The PSC-6265 operates continuously at a power level of 580 watts on the 6 channels defined for VPX. For systems that require higher power levels, up to three supplies may be operated in parallel.

Fault monitoring and control circuits protect the system from over-voltage, over-current, and over-temperature conditions.

Power supply operational or fault status is displayed using RGB colored LED on front panel.

Attach external DC/DC converters to the IBC (~47-51VDC) output for Fans (+28VDC) and other items.

Specifications

Mechanical

Card Guide Mechanical: Per VITA 48.2
Wedge Lock Mounting: Per VITA 62, Figure A-6, Secondary side
Connectors P0, P1: Per VITA 62, P0=TE 6450843-6, P1=TE 6450849-6
Dimensions: Per VITA 62 Figure A-5 and A-6, 1" Pitch, 9.187"x 6.634" x 0.970"
Weight: 4.10 Lbs./ 1.86 Kg.
Inject & Eject: Per VITA 48.2
Covers: ESD protected inputs and robust covers on both sides of the board accommodate military two-level maintenance

Electrical

Power Characteristics per MIL-STD-704F: Normal and abnormal transients and distortion spectrum compliant; Compatible with Dawn's HLD-6262 50 mSec holdup module.
EMI Control per MIL-STD-461: CE102 Lab Tested with external filter,
Input Voltage: 85-265VAC Single Phase, 47-440 Hz, 3 Supplies may be used in parallel if three-phase input is required
Voltage Rails: +12V (PO1), +12V (PO2), +5V (PO3), +12V_AUX, -12V_ AUX, 3.3V_AUX, VBAT (+3.0V typical)

Max Output Current/Power (Amps/Watts) for each channel					
12V(PO1)	12V(PO2)	5V(PO3)	3.3V_AUX	+12V_AUX	-12V_AUX
18A/216W	18A/216W	76A/380W	30A/99W	4A/48W	4/48W

Total 12V (PO1+PO2) cannot exceed 456 Watts
Total Maximum (PO1,2,3 & AUX) Power: Cannot exceed 580W
Ripple: <50mVp-p on +3.3V and +5V, <20mVp-p on +12V and -12V
Isolation Voltage: Input to Output (2000V)

Environmental

Operating Temperature: Per VITA 47, Class CC4, -40C to 85C
Non-Operating Temperature: Per VITA 47, Class C4, -55C to 105C
Temperature Cycling: Per VITA 47, Class C4, -55C to 105C
Vibration: Per VITA 47, Tested IAW MIL-STD-810, Method 514, Procedure 1
Shock: Per VITA 47, Tested IAW MIL-STD-810, Method 516, Procedure 1
Humidity: Per VITA 47, Section 4.6, 30C and 95% Non-condensing
Altitude: Per VITA 47, Section 4.7, Tested IAW MIL-STD-810, Method 500, Procedure II
Fungus Resistance: Per VITA 47, Section 4.10

47915 Westinghouse Drive Fremont, CA 94539 phone 510-657-4444 fax 510-657-3274 www.dawnvme.com
Rev. 041219

Dawn VME Products®

Ordering Information

P/N 06-1016265

P0 Connector Pinout

Pin Number	*Pin Name*
P7	ACL
P6	(L2) NOT USED
P5	(L3) NOT USED
P4	ACN
P3	+ Hold-up (Optional +47~51VDC out (IBC) with no holdup module)
P2	RTN Hold-up (Optional +47~51VDC (IBC) RTN with no holdup module)
P1	CHASSIS GROUND

The module will assert the FAIL* signal when PO1, PO2, PO3, or AUX voltages are not within their voltage specifications.

VITA 62 Control Logic Table

Control Inputs		*Power Outputs*	
ENABLE*	INHIBIT*	3.3V_AUX	PO1, PO2, PO3, +12V_AUX, and -12V_AUX
High	High	Off	Off
High	Low	Off	Off
Low	High	On	On
Low	Low	On	Off

P1 Connector Pinout

P1 Pin Number	*Pin Name*
P10	PO1 +12 VDC (A)
P9	PO2 +12 VDC (B)
D9	UD0* Sync* (VITA 62 defined)
C9	PO3_SENSE (+5)
B9	PO2_SENSE (+12B)
A9	PO1_SENSE (+12A)
D8	UD1* NOT USED
C8	PO3_SENSE_RTN
B8	PO2_SENSE_RTN
A8	PO1_SENSE_RTN
D7	SIGNAL_RETURN
C7	PO3_SHARE (+5)
B7	PO2_SHARE (+12B)
A7	PO1_SHARE (+12A)
P8	POWER_RETURN
P7	POWER_RETURN
D6	SYSRESET*
C6	-12V_AUX
B6	SM3 NOT USED
A6	SM2 NOT USED
D5	SM1 NOT USED
C5	SM0 NOT USED
B5	GA4* NOT USED
A5	GAP* NOT USED
D4	GA0* NOT USED
C4	GA1* NOT USED
B4	GA2* NOT USED
A4	GA3* NOT USED
D3	NED_RETURN
C3	NED
B3	+12V_AUX
A3	UD2* NOT USED
P6	PO3 +5VDC
P5	PO3 +5VDC
P4	POWER_RETURN
P3	POWER_RETURN
D2	ENABLE*
C2	INHIBIT*
B2	FAIL*
A2	VBAT
D1	UD6* 3.3V Sense
C1	UD5* Holdup Sense (Dawn proprietary)
B1	UD4* Holdup RTN (Dawn proprietary)
A1	UD3* +12V_AUX
P2	3.3V_AUX
P1	POWER_RETURN

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