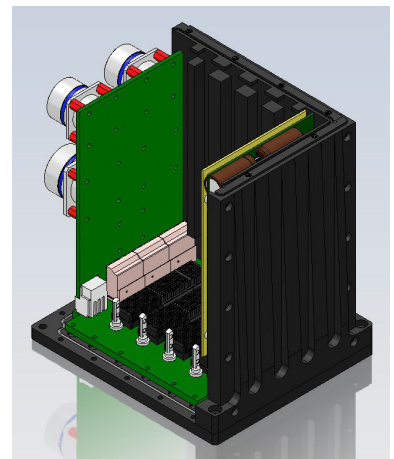
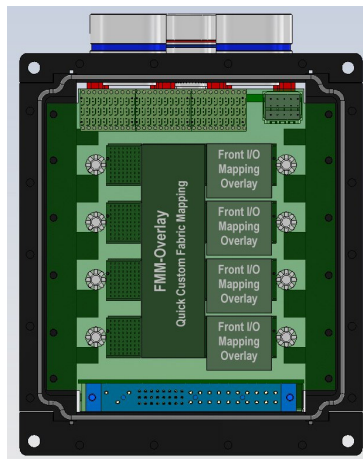
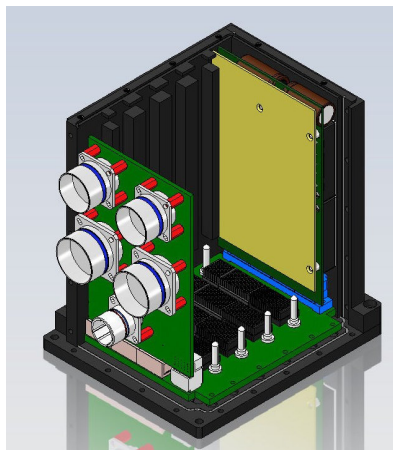


"VPX CUBE" Conduction Cooled Enclosure for VPX 3U Modules

Features

- ◆ 4-Slots of 3u VPX on 1" pitch (Open VPX Ready)
- ◆ Integrated power supply
- ◆ RuSH enhanced power supply actively monitors:
 - Voltage on each power rail
 - Current on each power rail
 - Temperature & (Humidity - optional)
- ◆ FMM-Overlay backplane interconnection for quick turn customization of data plane connection fabric.
- ◆ Rigid front panel interface eliminates wiring challenges
- ◆ Backplane overlays enable PMC/XMC to I/O customization.



Overview

Dawn's 3U form factor conduction cooled chassis for cold plate deployment is designed for all rugged environments; Airborne, Land and Sea.

Conduction cooled base coupled, via short and efficient path, provides for optimum cooling. Maximum power dissipation depends on cold plate.

RuSH enhanced 3u conduction cooled power supply monitors system critical performance parameters including Voltage, Current, and temperature.

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

Specifications

Mechanical

Extended Shock and Vibration Per MIL-STD-810E

Mounting: 1" or 1/2" grid cold plate.

Compatibility: 3u VITA46 & VITA65 (Open VPX) card compatible

Dimensions: 7.0"L x 6.0"W x 7.62" H

Weight: Approximately 13.5 Lbs without cards

Backplane

PCB Design: 18-Layer, High performance, FMM Overlay Ready

Power/Ground Planes: Multiple, 2 oz. copper

Card Guide: Chassis Ground connected for Card protection.

Power per Slot: 20A per power rail (VITA 46/65 - VS1,VS2,VS3).

Front I/O panel

I/O panel to Backplane interfaced via shielded differential connectors for applications from 3.125 Gb/s to 10+ Gb/s. I/O panel connectors can be linked to SMA and other RF connectors for application enhancement.

Environmental

Storage Temperature: -40°C to +100°C

Operating Temperature: -40°C to +85°C (Review chassis and card thermal testing specs for specific applications).

Maximum power dissipation depends on cold plate.

Full environmental sealing per D0-160E

EMI Shielding meets MIL-STD-461E

Power Supply Specifications:

Input power types

AC/DC

85 – 264 VAC 47-800Hz

DC/DC

9-18VDC 18-36VDC 36-72VDC

Output Voltage	Current *
+12V (VS1)	20A
+3.3V (VS2)	20A
+5V (VS3)	20A
Aux_+3.3V	4A
Aux_+12V	4A
Aux_-12V	4A

250 Watts with extended capability options dependent upon application technical review.

* Current per rail balance (VS1, VS2, VS3) can be customized per order.

Additional Features:

Mechanical

Key guards: Provide protection against incorrect card insertion for each slot by customer selection of unique (0,45,90,270,315 degree) key rotations.

Conduction Slots: Wedge-Loc compatible card slots at 1" pitch provide for accepting VITA 48 card widths of 0.8", 0.85", or 1" **Inject & Eject:** VITA 48 compliant inject and eject features

Front I/O panel & Backplane Interface

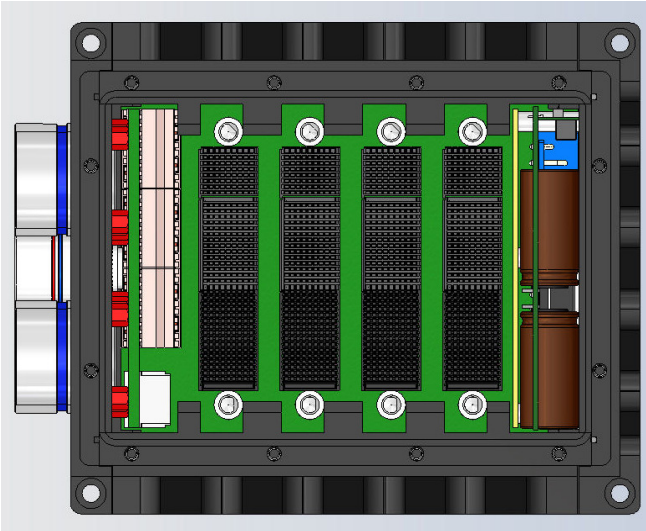
FMM-Overlay technology for fabric routing customization between slots with excellent signal integrity.

Overlay technology for signal path customization from card I/O (like PMC & XMC) to front panel I/O interface connectors.

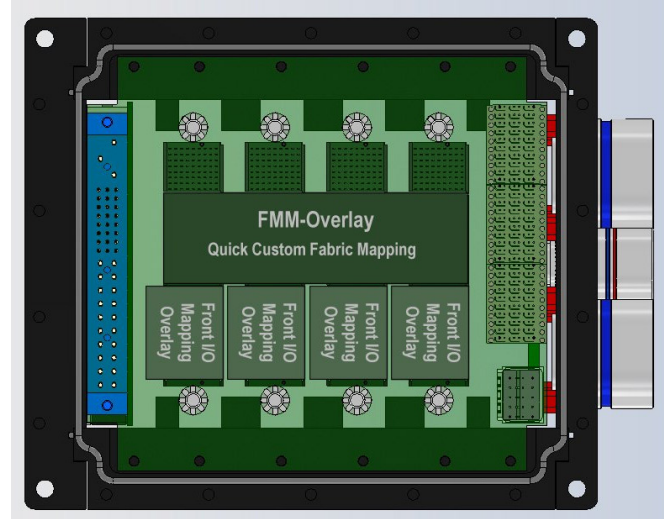
Optional Backplane I/O to RF interface cables.



(CCE-3VX4 VPX CUBE Shown)



Top View



Bottom View

Other Products from Dawn:

Card cages for commercial, aerospace and military applications

Enclosure 3D solid model design and production from commercial to full rugged military

Custom and Standard product PCB design, layout, production

RuSH™ Rugged system health monitor

Backplanes for **cPCI 2.1, cPCI 2.16, VME, VME64x, VX, 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