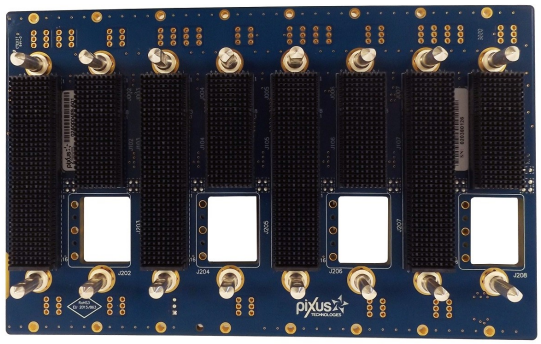
Open Frame Development Chassis for 3U OpenVPX Aligned with the SOSA™ Technical Standard

VPXD0500



VPXD0500 KEY FEATURES

- Open Frame Development Chassis, designed in alignment with the SOSA (TM) Technical Standard
- 4x VITA 65 OpenVPX power and ground only slots and 4x VITA 67.3c slots
- SOSA clocking and IPMB connections routed
- Optionally accepts versions with grounding rows per 14.6.11 (and similar SOSA slot profiles), each slot is configurable at factory
- Optional conduction-cooled module card guides
- Dual 165 CFM fan cools front slots and RTMs (Other options available upon request)
- PSU options up to 1200W
- Convenient carry handle
- Accepts up to 100GbE speed boards

The VPXD0500 is an open frame chassis that is ideal for testing and development of SOSA / OpenVPX systems. The power and ground only backplane offers maximized versatility for prototyping. The backplane is often used in conjunction with Meritec VPX cabling for a highly versatile approach.

The development chassis features SOSA clocking, routing of the IPMB signals, etc. Each slot can be populated with either a card guide for an air-cooled or a conduction-cooled plug-in module.

The Pixus modular UX series of fixed AC power supplies provide versatile power options for OpenVPX / SOSA voltages. Other options include a Pixus VPX Chassis Manager installed in the enclosure.

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SPECIFICATIONS

Architecture		
Physical	Dimensions	~6U (without carry handle) for the VPXD0500
		Width: 8.92" outer, 8.60" inner (max recommended usable space is 8.0" for cabling, etc)
		Depth: ~11" Weight: ~21 lbs for VPXD0500 and ~28 lbs
Type	OpenVPX Chassis	Up to eight 3U OpenVPX slots (at 1.0" pitch)
Standards		
OpenVPX, SOSA	Type	VITA 65, VITA 46, SOSA
Configuration		
Power	VPXD0X00	Up to 1200W supply AC (DC options available)
		110-240AC with frequency from 47-63Hz and DC –36V to -72V
Environmental	Temperature	Operating Temperature: 0° to 55°C
		Storage Temperature: -40° to +70°C
	Altitude	10,000ft operating
		40,000ft. Non-operating
	Relative Humidity	5 to 95 percent, non-condensing
Conformal Coating		Humiseal 1A33 Polyurethane
		Humiseal 1B31 Acrylic
Other		
MTBF	MIL Handbook 217-F@ TBD Hrs.	
Certifications	Designed to meet FCC, CE and UL certifications where applicable	
Standards	ISO9001:2015 and AS9100B:2004 standards	
Compliance	RoHS and NEBS	
Warranty	Two years	
Trademarks and logos	The Pixus Logo is a registered trademark of Pixus Technologies Inc. other registered trade-marks are the property of their respective owners. Specs. subject to change without notice.	

SOSA Aligned Profiles

Pixus has multiple backplane options that support various SOSA slot profiles. SOSA aligned systems utilize just the 12V (VS1) rail along with some 3.3 AUX. The IPMB is routed across the backplane to support the use of a SOSA aligned chassis manager and VITA 46.11 compliant versions. Visit https://pixustechnologies.com/products/enclosure-system-solutions/vpx-vme64x-chassis-2/openvpx-3u-6u-sosa/ to see Pixus' offering of SlotSaver™ mezzanine-based and pluggable SOSA aligned/VITA 46.11 chassis manager options.

For development systems, customers often start with our 8-slot SOSA aligned version. It features a power and ground back-plane with 4 VPX slots and 4 slots with VITA 67.3c (Aperture H) cutouts. Meritec cables can be optionally used to "route" the backplane. They plug into the Rear Transition Module (RTM) connectors. These backplanes have the IPMB signals bussed as well. Contact Pixus for details.

An examples of the wide variety of options are shown below. Several of the Pixus power and ground and routed backplanes have cutouts for Aperture H (VITA 67.3c) or other RF/Fiber sizes (Aperture J—VITA 67.3d, etc)

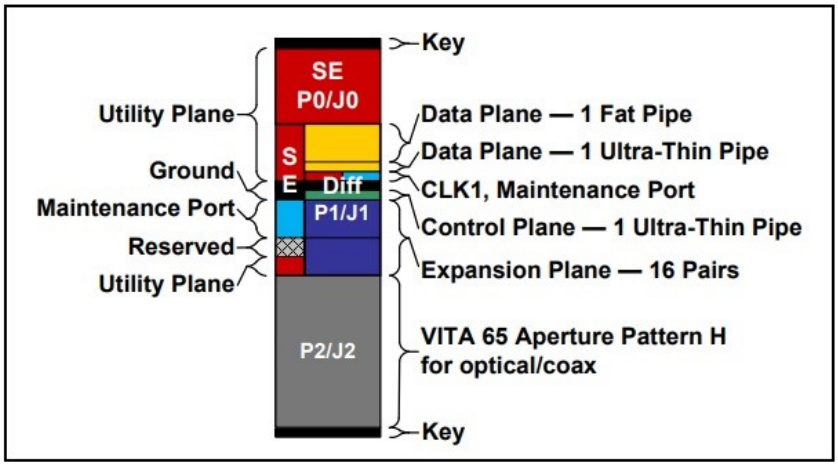

Figure 14.6.11-1 SLT3-PAY-1F1U1S1S1U1U2F1H-14.6.11-n

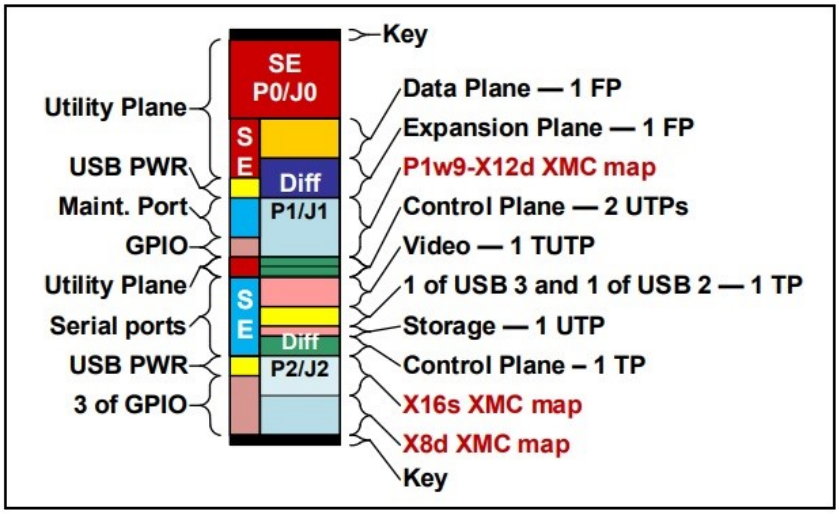

Figure 14.2.16-1 SLT3-PAY-1F1F2U1TU1T1U1T-14.2.16

Optional VITA 62 Power Interface Board (or part of some monolithic back-planes)

- Single or dual VITA 62 PSU options
- 3U and 6U versions available
- Header for Sense, Share, and CMM signals

ULTRAMOD POWER SUPPLIES FOR OPENVPX

Model	Vnom (V)	Set Point Adjust Range (V)	Dynamic Vtrim Range (V)	Imax (A)	Power (W)	Remote Sense	Power Good
XgA	12.0	10.8-15.6	-	12.5	150	-	-
XgB	24.0	19.2-26.4	-	8.3	200	-	-
XgC	36.0	28.8-39.6	-	5.6	200	-	-
XgD	48.0	38.5-50.4	-	4.2	200	-	-
XgE/Xg7	24.0	5.0-28.0	-	5.0	120	-	Yes
XgF/Xg8	24.0	5.0-28.0	-	3.0	72	-	Yes
	24.0	5.0-28.0	-	3.0	72	-	Yes
XgG	2.5	1.5-3.6	1.15-3.6	40.0	100	Yes	Yes
XgH	5.0	3.2-6.0	1.5-6.0	36.0	180	Yes	Yes
XgJ	12.0	6.0-15.0	4.0-15.0	18.3	220	Yes	Yes
XgK	24.0	12.0-30.0	8.0-30.0	9.2	220	Yes	Yes
XgL	48.0	28.0-58.0	8.0-58.0	5.0	240	Yes	Yes
Xg1	2.5	1.5-3.6	1.15-3.6	50.0	125	Yes	Yes
Xg2	5.0	3.2-6.0	1.5-6.0	40.0	200	Yes	Yes
Xg3	12.0	6.0-15.0	4.0-15.0	20.0	240	Yes	Yes
Xg4	24.0	12.0-30.0	8.0-30.0	10.0	240	Yes	Yes
Xg5	48.0	28.0-58.0	8.0-58.0	6.0	288	Yes	Yes

UltraMod powerPacs

	Model	Slots	Power	Medical Approval UL/EN60601-1 3rd edition	Industrial Approval UL/EN60950 2nd edition
UX	UX4	4	600W	Yes	Yes
	UX6	6	1200W	Yes	Yes

Pixus typically uses the UltraMod power supplies in the development enclosures. However, other PSUs are available upon request or as technical requirements specify.

Pixus will select the UX sub-modules based on the power per rail that you require and ensure that we provide ample wattage with overhead. We install a separate small PSU for fans in the chassis to reduce noise. The noise level for all rails on the Ultramod PSUs is guaranteed to be no more than the greater of 1% or 100mv.

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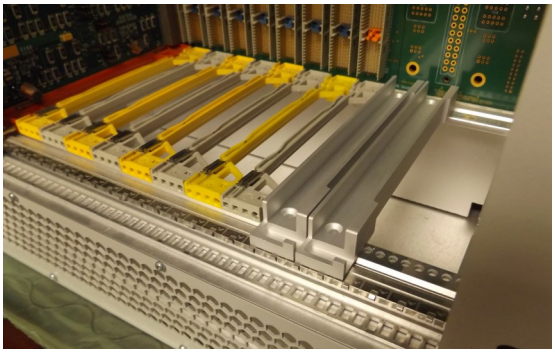
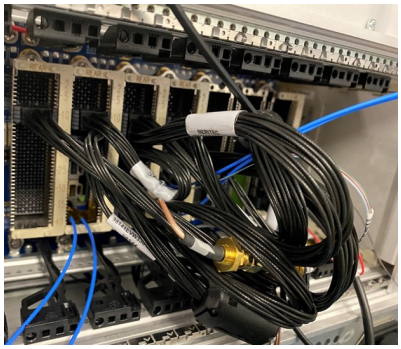
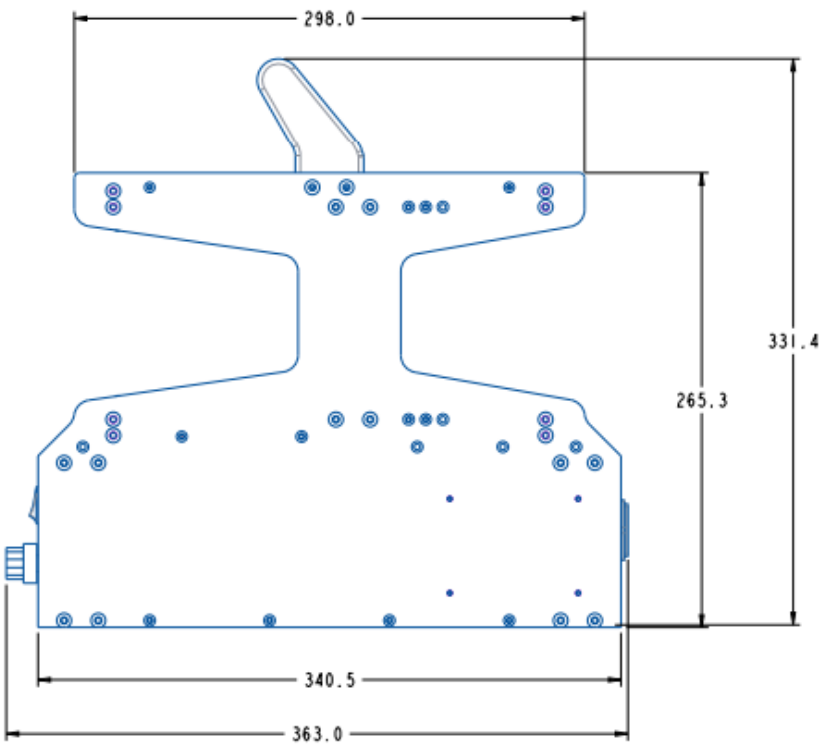
CONDUCTION COOLED CARD GUIDES & MERITEC CABLE OPTION

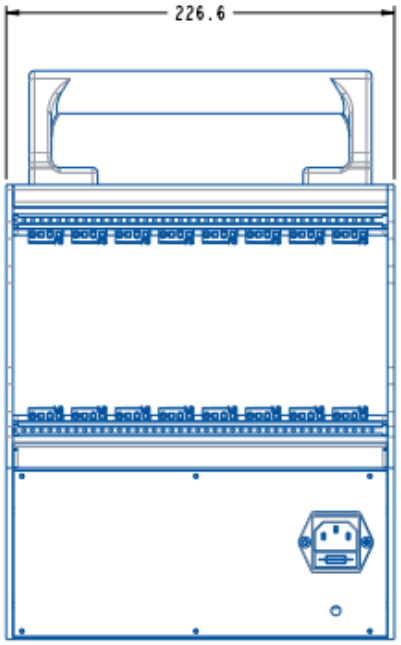




The conduction-cooled card guides allow modules with wedge locks to be plugged into the enclosure. They are easily swappable to the air-cooled guides. Meritec cables are used to allow a power and ground only backplane to be "routed". Other I/O interfaces are also available. Contact Pixus for details.

Chassis Dimensions





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ORDERING OPTIONS

0 = RT2 connector
1 = RT3 connector (optional for 100GbE)

VPXD0500-ABC-DEF-XX

A = Power Type

0 = no PSU
1 = Reserved
2 = 600W AC (standard)
3 = 1200W AC (standard)
4 = Reserved
5 = Other

B = Backplane Payload slots (Not including PSUs)

0 = 2 slots	1 = 5 slots
2 = 6 slots	3 = Reserved
4 = Reserved	5 = Other
6 = 1 slot	7 = 3 slots
8 = 8 slots	9 = No backplane installed

X = VPX connectors are not installed in all slots

C = Backplane RTM Load

0 = No RTM connectors
1 = RJ2-RJ6 loaded all slots
2 = All RTM connectors loaded
3 = Other

DE = Backplane Configuration

PG = Power and Ground Backplane, cutouts only for V67.3 slots
PI = Power and Ground Backplane, VITA 67.3 housings fully installed (no contacts/cables installed)
PP = Power and Ground Backplane, VITA 67.3 housings partially installed (not all 4 slots fully populated, no contacts/cables installed in any slots)
XX = Other, consult factory for available configurations and 2-digit number code

F = Card Guides

0 = Standard card guides
1 = Conduction cooled module card guides
2 = Custom (mix of standard and conduction-cooled card slots)

2 digit customization code

Blank = standard, no customization

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