

SOSA / CMOSS DEVELOPMENT PLATFORM

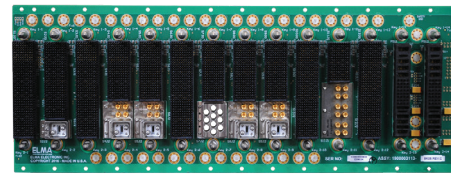
12-slot 3U OpenVPX Backplane with Profiles Aligned to SOSA™ Standard

DESCRIPTION

This 3U OpenVPX system provides slot profiles in alignment with the developing SOSA (Sensor Open Standards Architecture) standard. It is intended to support application development efforts for systems conformant to the hardware requirements of both the SOSA and CMOSS (C4ISR/EW Modular Open Suite of Standards) initiatives.

At the heart of the system is Elma's 12-slot OpenVPX backplane (12 payload + 2 power slots) with support for profiles aligned to the SOSA standard. The backplane features high speed RF and optical I/O connectivity and OpenVPX slot profiles as developed in conjunction with the tri-service research groups (CCDevcom, NAVAIR and AFLCMC).

Streamline your development efforts and shorten your time to deployment. Payload boards are available as part of the platform. Choose from a growing ecosystem of processor, network, network timing and power supply modules designed to align with CMOSS and the developing SOSA standard.



12-slot backplane for CMOSS / SOSA

Features

- Elma's 12-slot OpenVPX backplane with SOSA / CMOSS profiles
- Conduction-cooled slot inserts
- Front and rear fan trays with 12 VDC fans
- AC operation with power cord
- Front panel on/off switch, reset switch, voltage LEDs and test points
- Choose from modules aligned with SOSA profiles:
 - TR C4x Concurrent Technologies 3U VPX high performance Single Board Computer (SBC) with Intel® Xeon® processor
 - VPX3-1260 Curtiss-Wright Defense Solutions high performance SBC 8th Gen Intel Xeon ("Coffee Lake") processor
 - 4590a Elma / Interface Concept GigE, 10GigE and 40GigE Ethernet switch with copper and fiber ports
 - VPX3-673 Curtiss-Wright Defense Solutions network timing card with radial support for IEEE 1588 precision timing and synchronization
 - Dual high wattage 3U VPX Behlman pluggable power supply modules
 - Elma Type 39 E-Frame chassis providing open access for test and troubleshooting in air- and conduction-cooled configurations

Embedded Computing Payload & Peripheral Modules:



TR C4x SBC



4590a Ethernet Switch



VPX3-1260 SBC



VPX3-673 Network Timing Card



VPXtra500 PSU

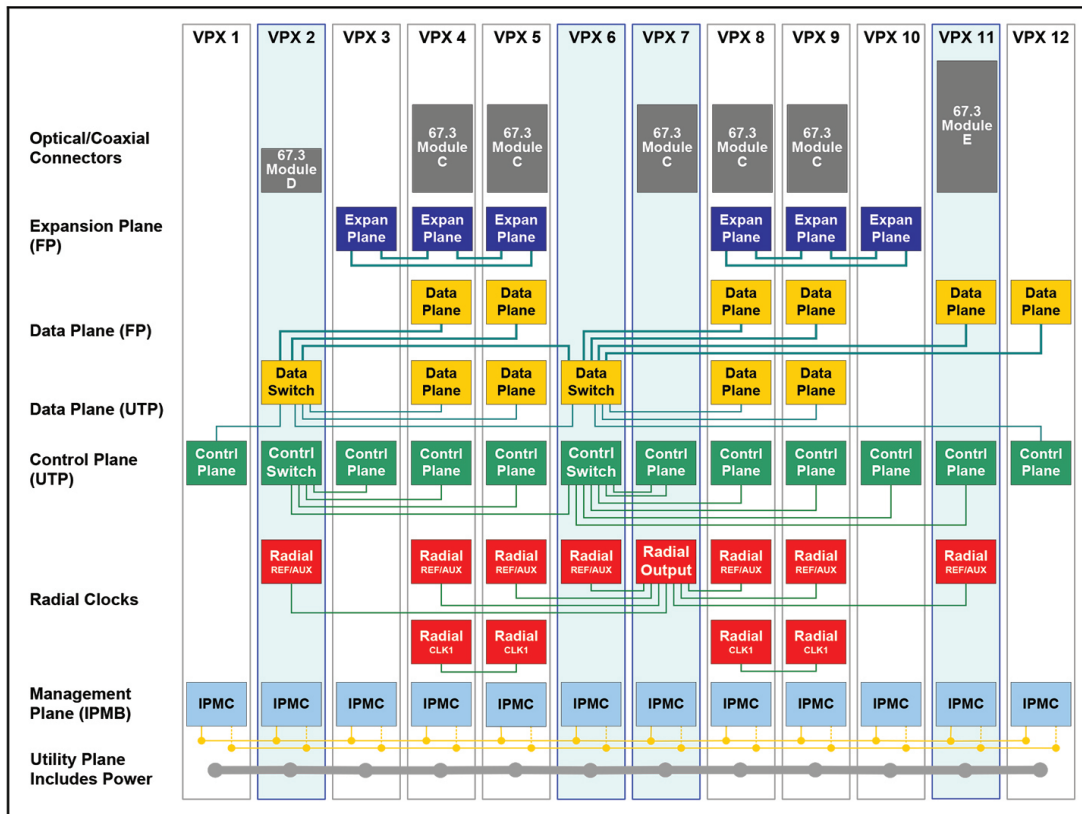


BACKPLANE TOPOLOGY

This full featured backplane has cutting edge interconnect technology and a range of OpenVPX profiles aligned to the current SOSA standard, ready for your application development.

Slot profiles include:

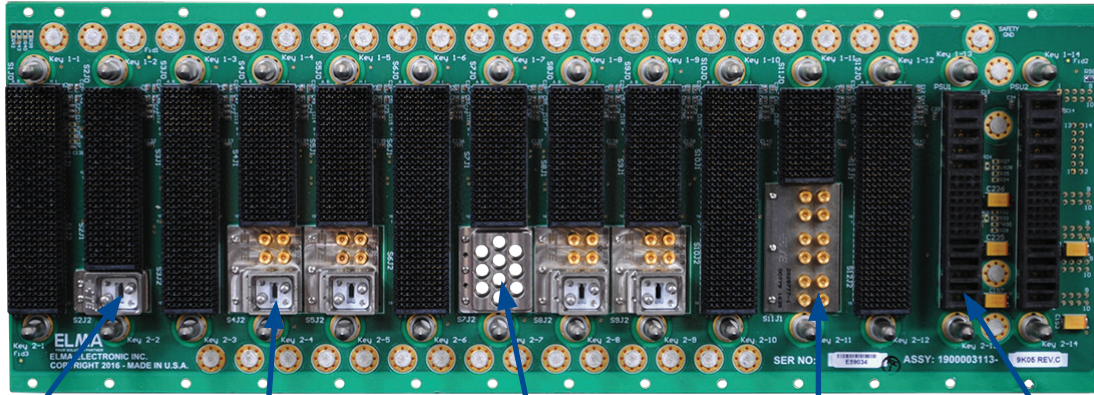
- Slots 1,3,10 and 12: SLT3-PAY-2F2U-14.2.3
- Slots 4,5,8 and 9: 1F1U1S1S1U1U2F1H-14.6.11-0
- Slot 2: SLT3x-SWH-4F1U7U1J-14.8.7-0
- Slot 6: SLT3x-SWH-6F1U7U-14.4.14
- Slot 7: SLT3x-TIM-4S16S1U2U1H-14.9.1-0
- Slot 11: SLT3x-SWH-1F1S1S1U1U1K-14.8.8-0



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VITA 67 BACKPLANE RF AND OPTICAL CONNECTIVITY



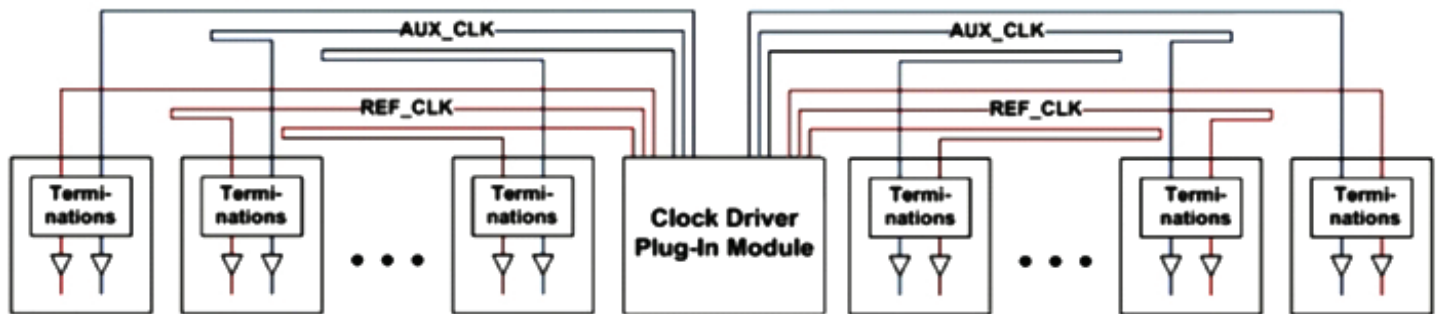
- VITA 67.3d
1 x optical Interface
- VITA 67.3c
4 x RF and
1 x optical Interface
- VITA 67.3c
10 x RF Interfaces
- VITA 67.3e
12 x RF Interfaces
- Dual VITA 62 PSU

The backplane architecture provides slot profiles in support of emerging CMOSS-related design standards including:

- MOSA (Modular Open Standards Approach)
- VICTORY (Vehicular Integration for C4ISR Interoperability)
- MORA (Modular Open Radio frequency Architecture)
- VITA 49 and VITA 65
- HOST (Hardware Open Systems Technology)
- FACE (Future Airborne Capability Environment)
- SOSA (Sensor Open Standards Architecture)
- RedHawk Linux

PRECISE NETWORK TIMING

The backplane supports a radial slot card for IEEE 1588 precision timing and synchronization. The 7 slot implementation receives radial clock signals (Aux Clk and Ref Clk) driven independently from a radial clock timing card while the remaining 5 slots receive standard OpenVPX bussed Aux_Clk and Ref_Clk signals.

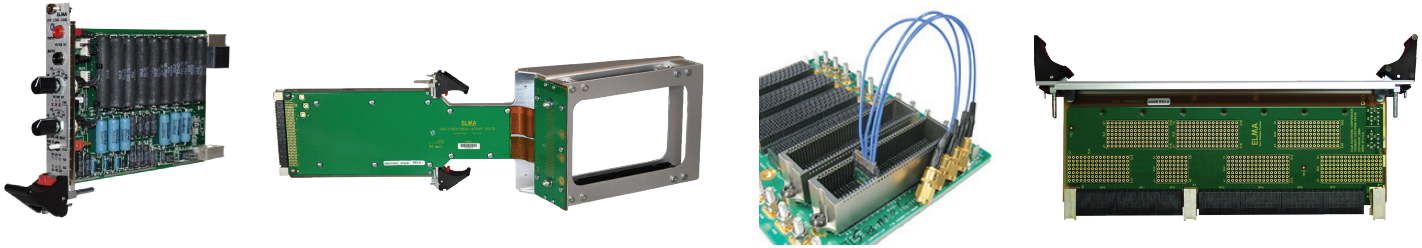


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TEST ACCESSORIES

Optimal System test accessories including load boards, extender boards, slot to slot cable systems and rear transition modules.



RUGGED DEPLOYMENT READY CHASSIS

Work with Elma to configure, test and integrate your final deployed chassis.



ORDER INFORMATION

Description

Model Number

SOSA / CMOSS E-Frame Development Platform

Measures 9U high x 17" wide x 12" deep
Front and rear 1" pitch card cages for 3U VPX and RTM, conduction cooled card guides
12 slot OpenVPX backplane + 2 power slots with SOSA-aligned slot profiles plus VITA 67 RF and Optical connectors.
1334W VICOR PFC MegaPAC Power Supply
Front and rear fan trays with 12VDC fans
AC operation, AC power cord
Front panel On/Off switch, reset switch, voltage / fan LEDs and voltage test points
Completely assembled, wired and tested

39E12WUX98Y2VCM0-CERDEC

3U OpenVPX Ethernet Switch

Module profile aligned with SOSA guidelines
10GbE and 40GbE port configurations in copper and fiber

ComEth 4590A

Cable, slot 7, rear I/O single channel, SMPM Female to SMA male, 31-inches long

CAE046991

Cable, RF, rear I/O single channel, for VITA 67.3c and VITA 67.3e slots,
OSMM Male to SMA male, 23-inches long

CAE046994

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