

**DESCRIPTION**

Elma's AI Optimized Test and Development chassis is a next generation portable test platform designed to accelerate development and test of GPU focused applications. The chassis is aligned to The Open Group® SOSA™ Technical Standard.

The platform includes a 3U 7 slot backplane - 6 VITA 65 slots plus one VITA 62 power supply slot. The chassis includes a VITA 46.11 chassis manager, and a maintenance port aggregator along with front panel test points. This chassis and backplane support up to 100GBASE-KR4 Ethernet and PCI Express Gen4 for maximum speed and throughput, providing a comprehensive platform for AI/ML application development.

**Functional Features**

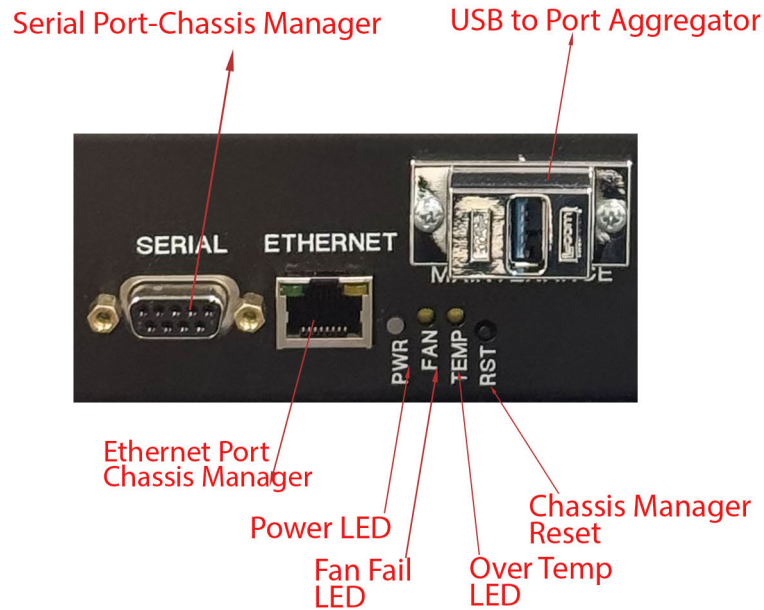
- 6+1 Slot Backplane
  - 6x VITA 65 Payload slots
  - 1x VITA 62 Power Supply slot
- Backplane supports dual domain Ethernet switch 1/10/25Gbps (1000BASE-KX, 10GBASE-KR, 40GBASE-KR4, 25GBASE-KR, 100GBASE-KR4)
- X16 PCIe connection on expansion plane with GPU; between slots 5 and 6
- The backplane supports two SBC/GPU pairs
- Routed expansion plane links support PCIe Gen 4 data rates
- Full SOSA aligned V46.11 chassis manager, accessible from a connector on the rear of the chassis
- Maintenance port aggregator from all slots. Accessible via USB rear chassis port
- 1400W ATX style PSU
- Angled card cage, provides easier access to the module hardware
- Front panel voltage monitoring LEDs and test points
- Front panel reset and power switches
- Battery for VBAT connection
- Accommodates air cooled and conduction cooled payload boards
- 3U Rear RTM Slots available



Front view



Rear view

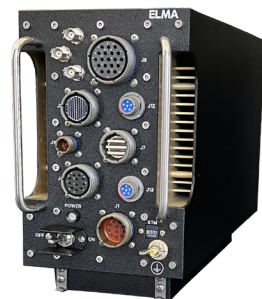
**CHASSIS REAR CONNECTIVITY****APPLICATIONS**

GPU Optimized CompacFrame SOSA and CMOSS aligned development systems help accelerate time to deployment. Ideal for compute intensive EO/IR or RF processing applications utilizing AI/ML or traditional DSP algorithms including:

- Surveillance and 360 situational awareness
- Radar beamforming, SAR and GMT
- Threat detection & identification
- Target tracking and display
- Autonomous navigation
- Sensor Fusion
- Degraded visual environment solutions
- Weapons control / guidance

**RELATED PRODUCTS**

- CMFF SOSA aligned to SOSA and SAVE
- ATR-3600S – SOSA Aligned Half ATR



# AI Optimized 3U VPX SOSA Aligned DEVELOPMENT PLATFORM

CompacFrame using a High-Performance Compute Backplane

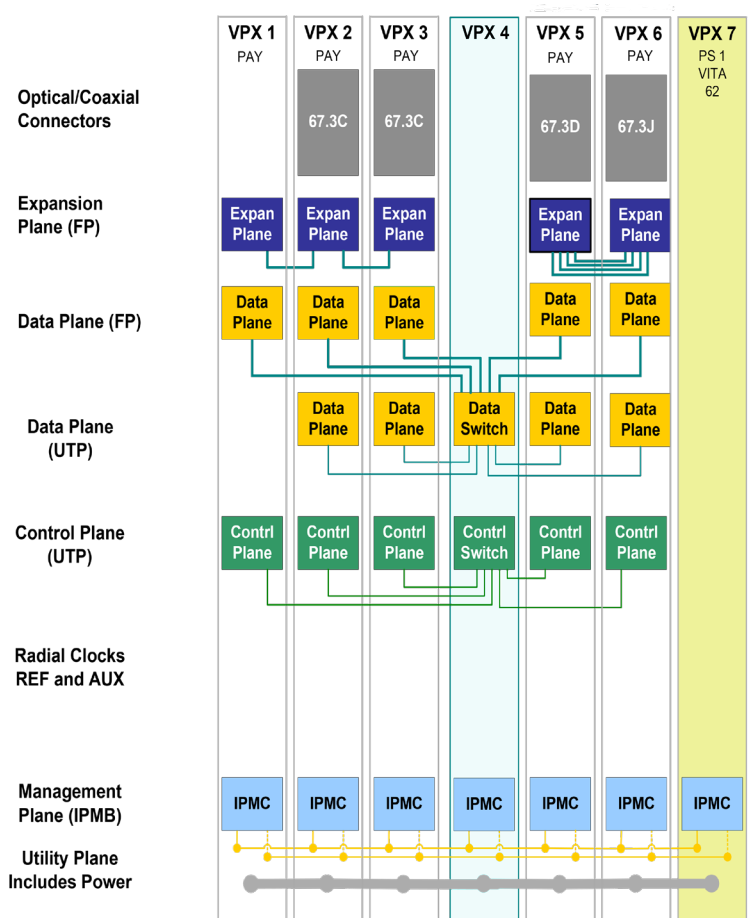
## BACKPLANE PROFILE

1SVX306AUP-2X31:

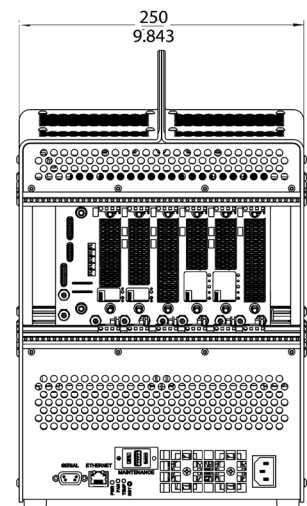
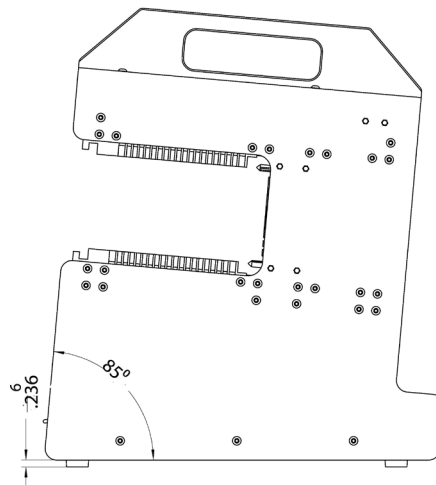
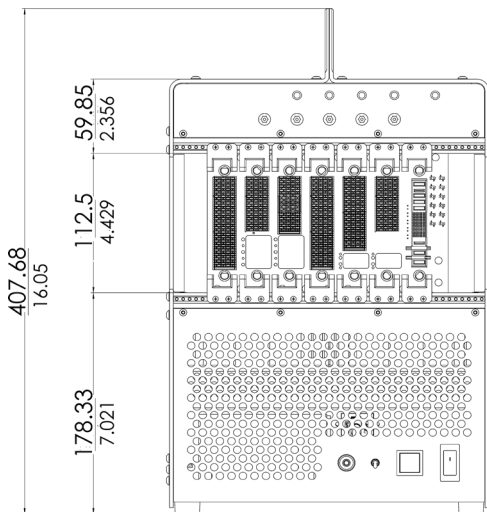
- Slot 1: SLT3-PAY-1F1F2U1TU1T1U1T-14.2.16
- Slot 2 & 3: SLT3-PAY-1F1U1S1S1U1U2F1H-14.6.11-n
- Slot 4: SLT3-SWH-6F1U7U-14.4.14
- Slot 5 & 6: SLT3-PAY-1F1U1S1S1S1U1U4F1J-14.6.13-n

Backplane Supports Multiple GPU use cases:

- 16-lanes of PCIe between a host SBC and a GPU using 14.6.13-n slots
- Meshed GPUs and the following (Slot 5 and 6)
- 14.6.11 host with an 8-lane PCIe connected GPU
- 14.2.16 host SBC with a 4-lane connected GPU



## LINE DRAWING



ELECTRICAL SPECIFICATIONS

Input Voltage:	115 - 240 VAC
Input Current:	10.0A - 15.0A max.
Input Frequency::	47 - 63 Hz

OUTPUT SPECIFICATIONS

Voltage:	+5V	+12V	+3.3V	-12V
Max Load:	36.0A	116.0A	31.0A	0.5A
Min Load:	1.0A	2.0A	1.0A	0.0A
Peak Load:	---	---	---	---
Regulation:	+5%	+5%	+5%	+5%
Ripple & Noise:	50mV	120mV	50mV	120mV

- \*Power module total output power of +5V and 3.3V not exceed 210W
- \*Power module total output power not exceed 1400W for 180~264V
- \*Power module total output power not exceed 1200W for 103~132V
- \*Power good signal: ON delay 100ms to 500ms, OFF delay 1ms, HOLD UP time: 17ms minimum at full
- \*Load & nominal input voltage

ORDER INFORMATION

AI/ML Test and Development Chassis	Model Number (Part Number)
<div>Elma AI/ML Development Chassis</div> <ul style="list-style-type: none"><li>■ Measures 16.9" (430mm) wide x 11.8" (300mm) deep x 16.5" (420mm) high</li><li>■ Wide range built-in power supplies</li><li>■ AC operation, AC power cord</li><li>■ Front panel On/Off switch, reset switch, voltage / fan LED and voltage test points</li><li>■ Built-in Chassis Manager</li><li>■ Integrated Maintenance Port Aggregator</li><li>■ Completely assembled, wired and tested</li></ul>	39S06NWX94Y3VCC0-6AUP

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