Atrenne
A Celestica Company

FEATURES AND BENEFITS

- Aesthetic aluminum design
- Open frame for easy card access
- Maximum unrestricted airflow and cooling for high-powered cards
- 3U 9 slot payload + 2 power slots OpenVPX backplane with slot profiles aligned to SOSA™ Standard
- Supports 3U x 160mm Modules.
- Supports air- cooled modules using IEEE 1101.10 card guides.
- Supports conduction-cooled modules using VITA 48.2 aluminum slot guides.
- Front mounted LED Array for SOSA Aligned 12V and 3.3 Aux. DC Voltages
- Additional front-mounted LED indicators for temperature, fan, and system status
- DC voltage test jacks for SOSA Aligned 12V and 3.3 Aux. DC Voltages
- Front mounted power switch
- High volume, speed-controlled cooling fans with status light
- Atrenne Chassis Manager System Monitoring Board
- Front mounted PCM Ethernet, & RS-232, as well as I²C interface
- Includes 4 slot temp sensors, located on slots 2, 5, and both power supply slots (temp sensors can be customer relocated to monitor any 4 of the 11 backplane slots)
- Design includes an I²C bus brought out to a 9-pin D-sub connector. (Allows customer to test security, program cards, query cards for 46.11 data, etc.)

DATASHEET

524 SERIES™

3U 11 Slot SOSA Aligned Series Development System, with Slot Profile Aligned to the SOSA® Standard

The 524 Open Series development system from Atrenne Computing Solutions offers a feature-rich design that combines functionality and flexibility with aesthetic detail.

Designed with the engineering developer in mind, the 524 Open Series development system incorporates a 9 slot OpenVPX Backplane (9 payloads + 2 power slots) with profiles aligned to Sensor Open Systems Architecture (SOSA™) and C4ISR/EW Modular Open Suite of Standards (CMOSS) initiatives. Unobstructed accessibility to cards under test is enabled for probe access with intelligent system monitoring capabilities. The front of the 524 Open Series development system chassis is configured with LEDs for each voltage and a corresponding test jack for ease of monitoring DC voltages and probing. An AC on/off switch and a system reset switch are also accessible via the front panel.

The 524 Open Series development system incorporates innovative thermal capabilities via the high-performance fans which are placed below the card cage to produce maximum unrestricted airflow while using side-entry air plenums. No matter where the test station is placed, the station will provide optimal cooling required for some of the most demanding cards aligned to SOSA™ manufactured today.

The 524 Open Series development system can be configured with a power control module (PCM) . The PCM provides system fan speeds, DC voltage outputs, and monitoring for temperature sensors. External access to the PCM is available through a rear-mounted Ethernet connector or RS-232 port.

SOSA®
Sensor Open Systems Architecture™

524 OPEN SERIES

DATASHEET

Design Specifications:

Physical

- Height: 12.4”
- Width: 12.4"
- Depth: 15.9”

Materials

- Side panels: .19” 5052-H32 aluminum
- Top and base: .09” 5052-H32 aluminum
- Extrusions: 6063-T6 aluminum

Finish

- All painted metal will be GRAY FED-STD-595 CHIP #26373 (-102) and clear chromate per MIL-DTL-5541 Type 2 Class 3

Environmental

- Operating temperature: 0°C to 30°C
- Storage temperature: -20°C to 85°C
- Humidity: less than 95%non-condensing
- Acoustical: 68dBA

Electrical

- Input: Filtered 120VAC
- Frequency: 50-60 Hz.
- 2 fuses (line & neutral)

Power Supply

- Includes two 800W Behlman VPXtra700D-IQI 3U Power Supplies
- Configured per SOSA 1.0 payload

Cooling

- (2) 24 VDC Mechatronics fans
- Current Draw: 1700mA each

Backplane

Consult factory for all available profiles

Additional Features

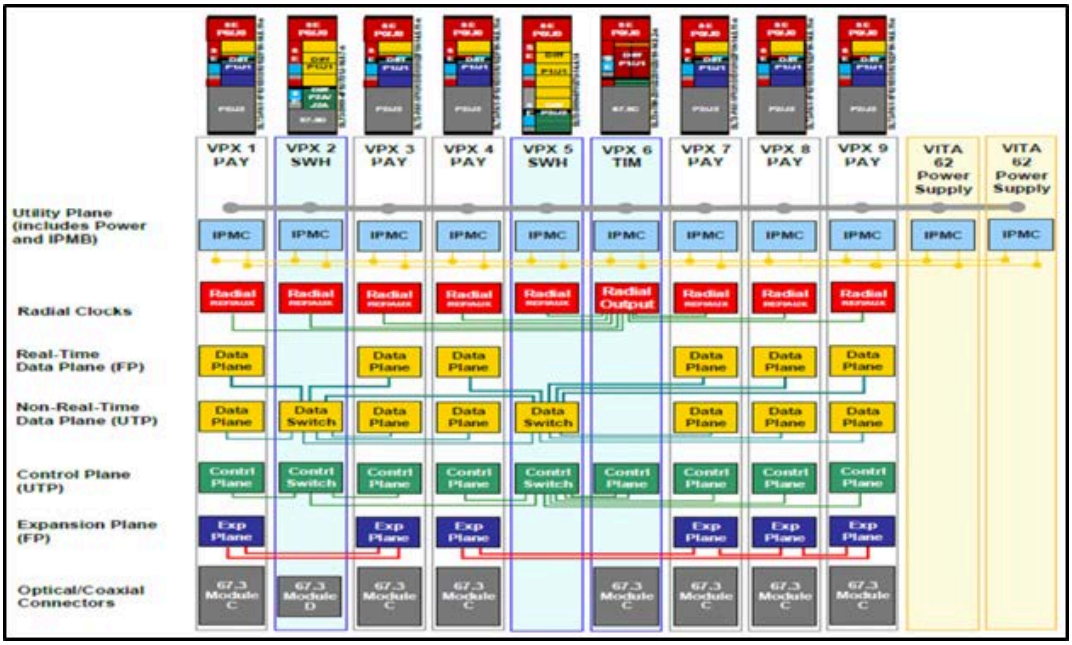
- Designed to meet: UL60950; 22.2
- One year warranty

Product Number

- 5243100-01 (3U Open Series)
- 5246100-01 (6U Open Series)

TABLE 1: BACKPLANE TOPOLOGY

- Slots 1, 3, 4, 7, 8, 9 (Qty 6): SLT3x-PAY-1F1U1S1S1U1U2F1H-14.6.11-0
- Slot 2 (Qty 1): SLT3x-SWH-4F1U7U1J-14.8.7-"N"
- Slot 5 (Qty 1): SLT3x-SWH-6F1U7U-14.4.14
- Slot 6 (Qty 1): SLT3x-TIM-2S1U22S1U2U1H-14.9.2-"N"
- VITA 62 POWER SUPPLIES - SLOTs 10 & 11



Typical Thermal Heat Load/ Slot (Ambient 30°C, at sea level)

Card Slot	Heat Load (Watts)
1	90
2	40
3	90
4	90
5	40
6	40
7	90
8	90
9	90
10 (Pwr Sup 1)	59
11 (Pwr Sup 2)	59

Notes:

1.) All components with the attribute PART LIST EXCLUDE assigned to them are unpopulated locations.
2.) Any similarity between the actual connector and the symbols shown in this document is a coincidence.
3.) The guide pins will be connected to chassis ground via the printed wiring board design.
3.1) The guide pins for slot 10 and 11 meet Vita 62 for SOSA VPX modules at 0 and 135 degrees.
3.2) The guide pins for slots 1-9 meet standard VITA 46 configuration
4.) Sense lines routed as differential pairs and connected to the load of the backplane design. These are routed with the sense return line (ground)
5.) The "N" option is subject to customer requirements per Vita 65.

WARRANTY

This product has a one year warranty.

CONTACT INFORMATION

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