

VPDU 11X

General-purpose Rugged Video and Display Processor



Rugged PC

The VPDU 11X is a commercial off the shelf (COTS) high performance rugged computer system, featuring full support for the Nvidia AGX Jetson Xavier module with flexible interfaces provided by a custom carrier board with internal expansion positions

The GRIP chassis provides an IP67 sealed enclosure for the internal COTS hardware technology. Within the chassis a combination of convection and conduction cooling ensures minimal heat stress of the components. Internal shock isolation is also used to ensure reliable operation in harsh environments where the unit is subjected to shock and vibration.

Application areas of this technology include security, automotive, transportation, oil and gas, nuclear, military and aerospace sectors.

The GRIP architecture integrates the four key elements of embedded design:



Hardware

- NVIDIA® Jetson AGX™ Xavier
- 8-core ARM v8.2 64-bit CPU, 8MB L2 + 4MB L3
- 512-core Volta GPU with Tensor Cores

I/O Connections

- 2x HDMI type A, maximum resolution: 3840x2160 at 60Hz
- Serial – x1 port, RS-485 capable, DB9
- USB – x2 USB 3.1 Gen1 Type-A
- Ethernet – x2 ports, 10/100/1000Base-T, RJ45

Environmental

- Sealed to IP67
- Operating temperature -25°C to +70°C
- Storage temperature -40°C to +70°C
- Internal shock isolation

Power

- Power – DC 9V to 36V
- Power consumption <30W

Operating Systems

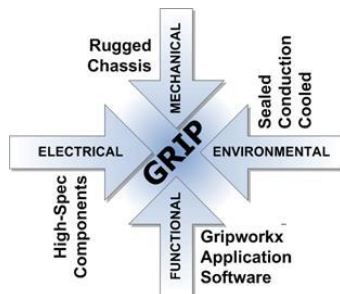
- Linux for Tegra (L4T) for Jetson AGX Xavier
- Filesystem: Ubuntu 18.04, Kernel version:4.9

Mechanical

- Weight 13.2lbs, 6.0Kg
- Dimensions 11.8" x 8.3" x 4.3" (330mm x 210mm x 110mm)

EMC

- EN55022 Class A, EN55024
- Part 15, Class A
- IEC 60533



Options

Video Capture

The VPDU 11X can be supplied with a wide range of analog and digital video capture interfaces, including

- X4 3G/HD-SDI (SMPTE 292) up to 1080p resolution
- RGB, PAL/NTSC
- DVI, CameraLink, GigE Vision, CoaXPress and others

Additional I/O Options

- Custom front panel configurations
- MIL-DTL-38999 connectors
- MIL-STD-1553 and ARINC 429 interfaces
- Additional Serial, USB, and LAN ports
- GPIO, Wi-Fi, GPS, CAN Bus + Others

Additional Storage

- Additional Internal M.2 or SATA 3 SSD, 1TB maximum

Vision4ce Software

The VPDU 11X is fully compatible with DART video tracker, GRIP-VMS, DVR software