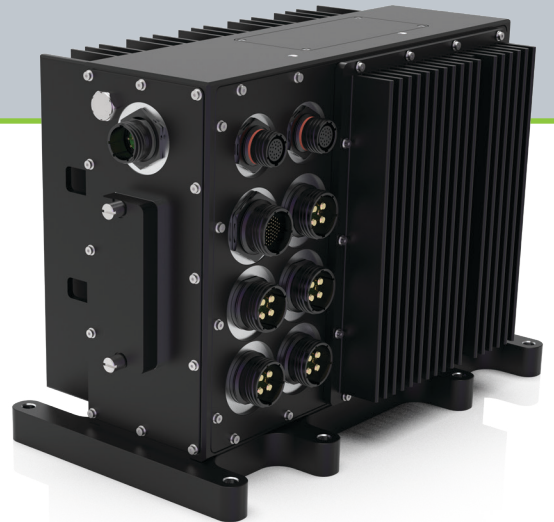


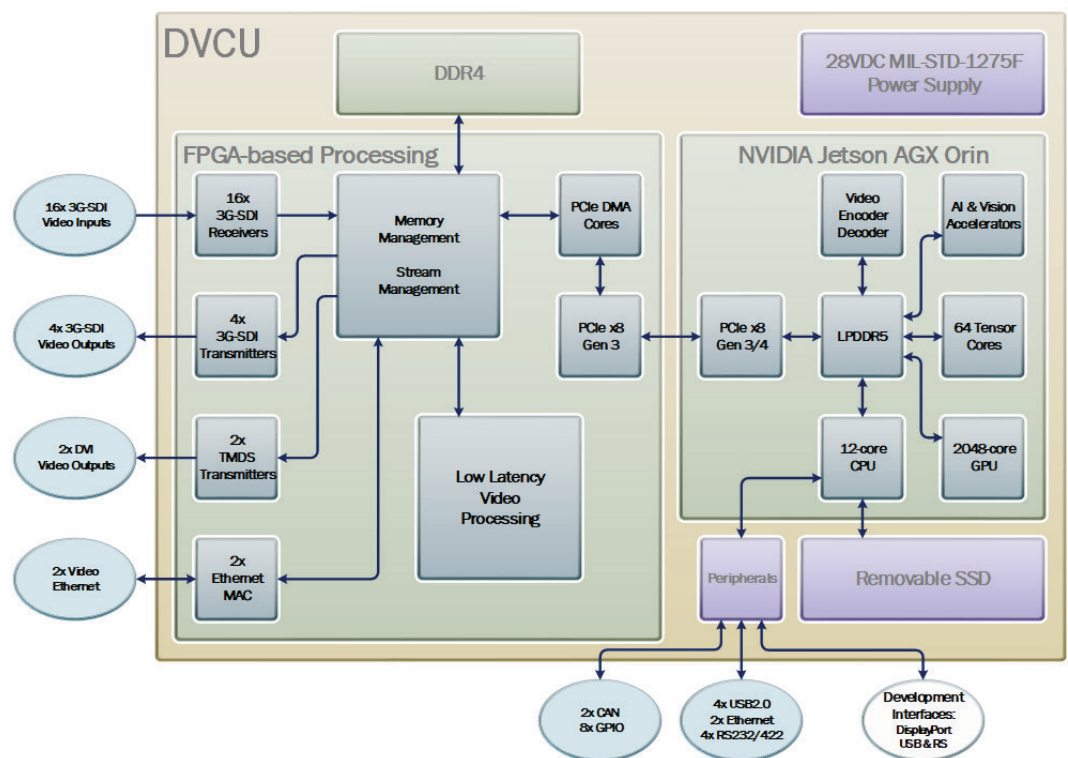
DVCU

DIGITAL VIDEO CONTROLLER UNIT

*Rugged Ultra Low Latency
SDI Switching Matrix with
Advanced Video and AI
processing with NVIDIA
Jetson AGX Orin GPU*



The DVCU is optimized for SWAP-C and MIL-STD compliance, making it suitable for mission-critical C5ISR applications. It offers low latency video capture and distribution, along with supercomputer-level AI processing capabilities



Hardware Video Switching Matrix

The DVCU FPGA hardware-based video switching matrix supports up to sixteen 3G-SDI video input and four outputs. Low latency video processing supports video mixing, compositions, PiP, and basic stitching.

High Performance Embedded Computing

The DVCU is designed with the NVIDIA® Jetson AGX Orin™ SoM supporting an NVIDIA Ampere GPU and the Arm® Cortex®-A78AE CPU delivering 245 TOPS, featuring 2048 CUDA cores and 64 Tensor cores.



Product Specifications

GPU	NVIDIA® Jetson AGX Orin™ Industrial 2048-core NVIDIA Ampere architecture
CPU	12-core Arm® Cortex®-A78AE v8.2 64-bit, Secure boot capable
Memory	64 GB LPDDR5 (+ECC) DRAM
Optional Removable Storage	SATA ver. 2.6 - 4TB
FPGA	Dual Xilinx Kintex Ultrascale+
Video Interfaces	16 x 3G-SDI input 4 x 3G-SDI output 2 x DVI output
Network Video Interfaces	2 x GbE
Control Interfaces	2 x CAN 4 x RS232/422 2 x 10/100/1000 Ethernet 4 x USB 2.0 8 x GPIO
Connectors	MIL-DTL-38999/3
Power Supply	28VDC MIL-STD-1275F
Power Consumption	< 150W
Size	203mm x 380.8mm x 267.1mm / 8" x 15" x 10.5"
Weight	15 kg /33 lbs

Environmental Specifications

Operating Temperature	From -46°C / -51°F to +63°C / +145°F – MIL-STD-810H
Storage Temperature	From -46°C / -51°F to +77°C / +170°F – MIL-STD-810H
Relative humidity	95% RH temperature cycle 30°C to 60°C / 86°F to 140°F – MIL-STD-810H
Vibration	Random vibration (wheeled vehicles) – MIL-STD-810H Random vibration (heavy tracked vehicles) – AECTP400
Shock	40g 15/23ms SRS – MIL-STD-810H
EMI / EMC	Ground Army – MIL-STD-461G
Ingress	IP65
Altitude	Operating & Storage up to 40.000ft – MIL-STD-810H
Sand & dust, salt fog	Compliant at unit level – MIL-STD-810H
Finishing	Black RAL 9005 Surface treatment: ROHS compliant Chromated Cr3 (MIL-DTL-5541 type II Class 3)

APPROVED FOR PUBLIC RELEASE; DISTRIBUTION IS UNLIMITED

The information and data given are typical for the equipment described. However any individual item is subject to change without notice.

The appearance of U.S. Department of Defense (DoD) visual information does not imply or constitute DoD endorsement.

STQ_DVCU_SpecSheet_March 2026

WWW.SCIOTEQ.COM

