

Fortis™ Delta VPX

Command and Data Handling (C&DH) for UAV/ AUV/ ROV/ USV



Fortis™ Delta is a lean, modular command and data handling (C&DH) system optimized for drones, UAVs, and USVs, offering a compact and adaptable solution for size-constrained applications.

The Fortis™ Delta suite includes the following product line options:

- » Sidus Single Board Computer (SSBC)
- » FeatherEdge™ AI/ML Processor
- » Position, Navigation, and Timing (PNT)

Key Features

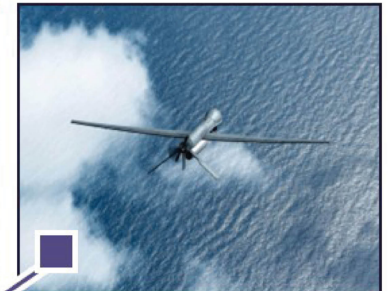
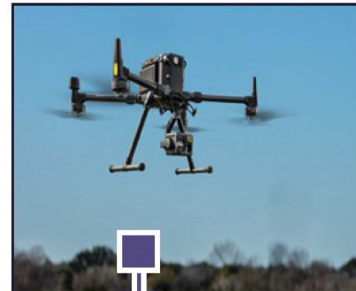
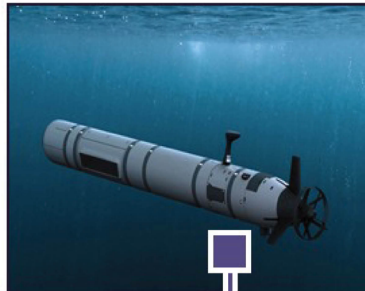
- » **Designed for Autonomous and Mission-Critical Systems**
- Fortis™ Delta VPX delivers reliable near real-time data processing, rapid decision-making, and system resilience in demanding operational environments.
- » **High-Performance Computing** - Features 64 GB LPDDR5 memory and 248 TOPS processing power for demanding UAV/ AUV/ROV/USV applications
- » **Optimized for Size, Weight, Power and Cost (SWaP-C)** - Tailored for UAVs, AUVs, ROVs, and USV platforms
- » **Rugged SOSA® / MOSA® Aligned Design** - Industry standard form factor with enhanced environmental resilience for seamless system integration.

Applications



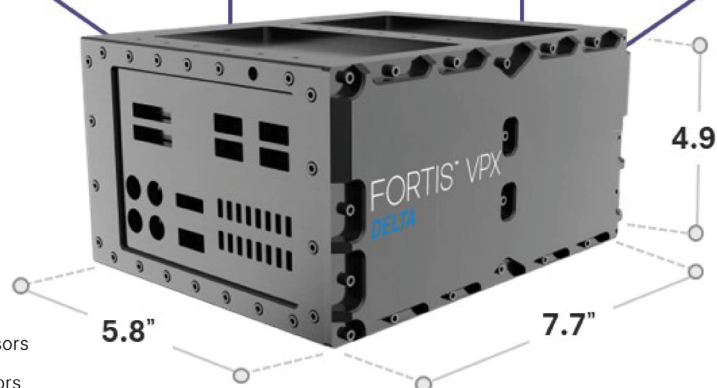
Aerial Drone Sensor Technologies

- » Precision Radar Altimeters
- » UAV & Drone-Based LiDAR Systems
- » Hyperspectral Imaging Cameras
- » Synthetic Aperture Radar (SAR)
- » Automatic Dependent Surveillance-Broadcast (ADS-B)
- » Magnetometers for Geophysical Mapping
- » Fuel Monitoring & Management Sensors
- » Battery Health & Performance Monitors
- » Anemometers and Onboard Weather Sensors



Underwater Drone Sensor Technologies

- » Multibeam Echo Sounding Systems
- » Side-Scan Sonar for Seafloor Imaging
- » Sound Velocity Profilers
- » High-Resolution Sonar Systems
- » Underwater Laser Scanners & Ultra-HD Cameras



FOR MORE INFORMATION
EMAIL US AT:
SALES@SIDUSSPACE.COM

400 W. CENTRAL BLVD.,
CAPE CANAVERAL, FLORIDA,
USA 32920

SIDUSSPACE.COM
+1 (321) 450.5633



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Fortis™ Delta VPX C&DH System Specifications

System Architecture	Sidus SBC (SSBC)	Quad Core ARM® Processor, Rad-hard PolarFire® FPGA, 8 GB DDR4, 512 MB QSPI, 512 GB NOR Flash	
	Position, Navigation, Timing (PNT)	GPS, Atomic/Rubidium Clock, Tactical-grade IMU, 120 MHz OCXO, 125 MHz OCXO	
	FeatherEdge™ AI/ML Processor	NVIDIA® Jetson AGX Orin™ Industrial, 64 GB LPDDR5, 248 TOPS, 680 GB pSLC NVMe SSD	
	Power Card	28 VDC / 12A, 330 W Max Power	
I/O	LVDS	4x SpW + Camera Link + 16 LVDS Pairs	
	Ethernet	4x 1 GbE, 2x 10 GbE	
	USB	1x USB 3.1 Gen 1 (5 Gbps)	
	UART	14x RS-422 + 2x RS-232	
	PWM	3x DC Motor (Roll, Pitch, and Yaw -X, Y, and Z)	
	Other I/O	2x SPI, 2x I²C, 16x GPIO, 16x Analog I/O	
Environmental	Operating Temperature	Min.	-55° C
		Max.	+125° C
Power	Input Power		28 VDC / 12 A
	Power Consumption		330 A Peak
Properties	Size	3U OpenVPX - SOSA®	
	Technology Readiness Level (TRL)	TRL 9	
	Operating System	Linux-based	
	AI/ML Model Type	TensorFlow Lite	
Properties	Rad-hard		Up to 100 krad



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