



Fortis™ is a compact, ruggedized command and data handling (C&DH) system designed for extreme environments and size-constrained applications.

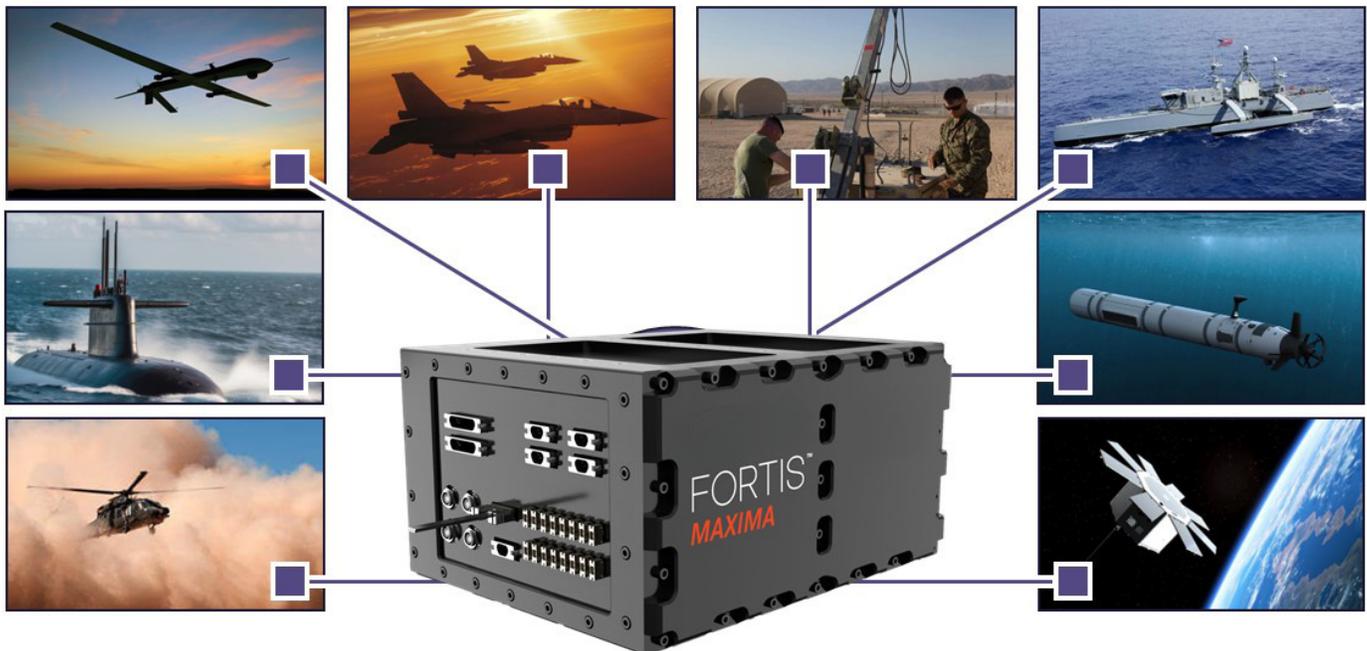
Fortis™ suite includes the following product line options:

- » Sidus Single Board Computer (SSBC)
- » FeatherEdge™ AI/ML Processor
- » Position, Navigation, and Timing (PNT)
- » Global Positioning System (GPS) Receiver
- » Custom Input/Output (I/O) Card
- » Power Converter Card
- » Third Party Software Defined Radio (SDR)

Key Features

- » **Designed for Autonomous and Mission-Critical Systems** - Compact, ruggedized and built for multi-domain operations across air, land, sea, and space
- » **Powered by NVIDIA® Jetson AGX Orin™ Industrial** - Provides high-performance compute capabilities for embedded edge applications, enabling advanced multi-sensor perception, situational awareness, and data fusion in a compact, power-efficient form
- » **Optimized for Size, Weight, Power, and Cost (SWaP-C)** - Tailored for unmanned platforms, cognitive electronic warfare, and C5ISR operations
- » **Rugged SOSA® / MOSA® Aligned Design** - Featuring a 3U VPX / SOSA®-Aligned architecture, Fortis™ ensures seamless integration, rapid deployment, and mission scalability across defense and commercial sectors

Applications



Air

- » Aerial Drones
- » Ballistic Missiles
- » Commercial and Civil Aircraft

Land

- » Command and Control (C2) Network
- » Electronic Warfare (EW)
- » Intelligence, Surveillance, and Reconnaissance (ISR)
- » Unmanned Ground Vehicles (UGVs)

Sea

- » Submarines
- » Surface Ships
- » Underwater Drones

Space

- » Counterspace Operations
- » Satellites
- » Space Defense
- » Space Situational Awareness

Fortis™ C&DH System Specifications

System Architecture	Sidus SBC (SSBC)		Quad Core ARM® Processor, Rad-hard PolarFire® FPGA, 8 GB DDR4, 512 MB QSPI, 4 TB NOR Flash
	Position, Navigation, Timing (PNT)		GPS, Atomic/Rubidium Clock, 120 MHz OCXO, 125 MHz OCXO
	Software Defined Radio (SDR)		Software Defined Radio (S / X Band)
	Payload Processor Unit (PPU)		Quad Core ARM® Processor, Rad-hard PolarFire® FPGA, 8 GB DDR4, 512 MB QSPI, 4 TB NOR Flash
	FeatherEdge™ AI/ML Processor		NVIDIA® Jetson AGX Orin™ Industrial
	Microcontroller I/O Card		64-bit ARM® Cortex® M4, 3x H-Bridge, 8x Analog I/O
	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 I ² C, 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®	
	Operating System	Linux-based	
	AI/ML Model Type	TensorFlow Lite	
	Rad-hard	Up to 100 krad	