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UC-HD

Unmanned Systems Universal Controller

Universal Controller—High Definition (UC-HD) is a common controller that commands safety-critical unmanned assets such as large, high-speed unmanned ground vehicles (UGV) and unmanned aerial systems (UAS).

Proven History

UC-HD was designed with the wealth of knowledge in controlling large, high speed, and/or safety critical unmanned systems from developing and fielding QinetiQ's Robotic Appliqué Kit (RAK) and Tactical Robot Controller (TRC), interoperable control unit. UC-HD is compatible with existing, fielded route clearance unmanned ground vehicles (U.S. Army REF Minotaur), medium sized unmanned ground vehicle (TALON®), small unmanned ground vehicles, and Group 1 UAS platforms. UC-HD is compliant to emerging program requirements as being selected as the U.S. Army RCIS program controller.

Key Features and Benefits

- Portable and lightweight
- Interfaces with a docking station for simplified operation in a vehicle or during pre and post-mission analysis
- Integrated safety hardware ensures safe operation of high speed and route clearance platforms
- Modular, adaptable and reconfigurable
- Fully integrated with QNA, Government and 3rd party command and control software
- IOP and STANAG 4586 compliant
- Intuitive controls and interfaces reduce user training and simplify operation
- Variants available for commercial and export
- One common controller capable of operating multiple unmanned systems, including air and ground assets
- Compact size and weight meets the needs of dismounted operations
- Open system architecture supports future upgrades and integration with 3rd party systems
- Tested ergonomics compatible with range of 5 to 95 percentile users and operational environments

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Enhanced Operator Usability

UC-HD leverages the proven user interface with a larger, easier to operate high definition screen for enhanced operations. Easily docked for vehicle or mounted workstation operation, UC-HD is the ideal solution for mission planning, conduct, and analysis. The lightweight modular design supports rapidly transitioning to dismounted operations as required.

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Packaging/Wearability	Single cable operation, hot swappable batteries Conformal battery compatible Total weight 3.6 lb Dimension 17.8" (45 cm) x 9.5" (24) x 2.6" (7) (W x H x D)
Environmental Performance	MIL-STD-810G Compliant, IP65, > 1 meter drop Operational Temperature Range -5 to 120F Storage Temperature Range -20 to 160F Operation Endurance > 3 hours
IOP Compliant **I/O Ports**	2x Gigabit Ethernet 2x USB 3.0 External Power In
Radio Communications	Ethernet (IP) Radio Agnostic, MANET (Mesh) radio compatible MPU5, AeroVironment pocket DDL Available Commercial or SAASM GPS
Processor Core	Intel Core i5-7Y57 1.2GHz, 4MB Cache, 16GB SDRAM, 256 GB SSD, Wifi/BT/GPS
User Interface	10.1" WXGA 1920 x 1080, 10-point capacitive gloved multi-touch, 800 nits, daylight and NVD readable Button layout ideal for multi-UxS control MOPP IV compatible MIL-STD-1472 Emergency Stop Operator Presence Detection

Collaborating with QinetiQ Inc.

At QinetiQ we bring organizations and people together to provide innovative solutions to real world problems, creating customer advantage. Working with our partners and customers, we collaborate widely, working in partnership, listening hard and thinking through what customers need. Building trusted partnerships, we are helping customers anticipate and shape future requirements, adding value and future advantage.

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