



UltraLYNX™ Software Defined Hubs

Software defined data & power hubs for next generation soldier systems

- Miniature rugged soldier worn hubs with embedded edge computing capability.
- Scalable and flexible open architecture that allows simplified integration of devices that were never designed to work with each other; hubs can be daisy-chained for system expansion.
- Software defined capability aids interoperability and enables USB driver offload, network routing, middleware deployment and container hosting on the hub.
- Future architectures employing devices such as weapon mounted HMI, HUD/HMDs and physiological monitors are simplified as the data infrastructure is managed within the hub.
- Not dependent on an EUD; system operation and configuration decoupled from connected EUD.
- Power distribution to connected devices from a central power source can be monitored and controlled through the built-in web-based user interface.
- Fully supported with optional cable packages and accessories.

Small, lightweight and cost effective smart hubs.
Designed and manufactured in the UK.





4 Port Hub Power & Data Specifications

Hub modes	Smart (embedded host): the embedded application processor is the USB host	Dumb (expansion): daisy-chaining & drop-in support for current systems
PAN ports	6 GSA / Nett Warrior / STANAG compatible universal ports Robust circuit protection (overcurrent/overvoltage/reverse voltage)	
Power inputs	8-36V DC Vbat power input on all ports (multiple simultaneous, user selectable) Primary and secondary batteries, auxiliary and scavenged power sources	
Power outputs	Vbat power outputs: 5.0A max per port (max 5.5A hub total) 5V DC power outputs: 2x 1.5A + 4x 0.5A (max 5.0A hub total)	
Data	USB 2.0 high-speed MTT hub; 6x DFPs or 5x DFPs + 1x UFP (mode dependent) Data function of each port individually switchable between USB and SMBus	
USB PD	2x USB Power Delivery capable ports; enables EUD sinking host functionality	
Power	Smart: 1.0W typ, 1.5W max, Dumb: 0.6W typ, 1.0W max	
Physical	Fischer Connector: 125 x 79 x 17 mm (4.9 x 3.1 x 0.7 in), 245g (8.64 oz) ODU AMC Connector: 125 x 91 x 17 mm (4.9 x 3.6 x 0.7 in), 275g (9.70 oz)	
Environmental	MIL-STD-810G, MIL-STD-461G* -20 to 55°C (-4 to 131°F) operating, -46 to 71°C (-51 to 160°F) storage IP68, 2m immersion for 60 minutes; fully functional with connectors unmated	
Reliability	20,000+hrs MTBF with high level of internal BIT coverage Reversionary mode ensures availability of power	



Powered by Ultra: computing & containerized apps at the edge



Tactical IP Networking
Multi-bearer IP bridging & routing to address the limitations of current architectures



Containerized Apps
Deploy additional third party functionality as virtualized apps e.g. edge TAK Server container



Web User Interface
Built-in web based UI for system setup & configuration of mission profiles



BMA Integrations
Transparent integration of mission equipment with in-service apps to reduce operator workload



Power Management
Monitoring of power usage per device & individually switchable power inputs / outputs



Network APIs
Third party integration possible via APIs for power, status and management



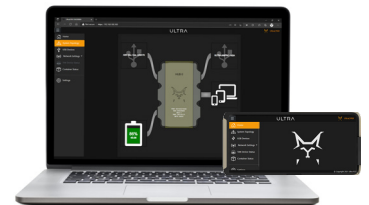
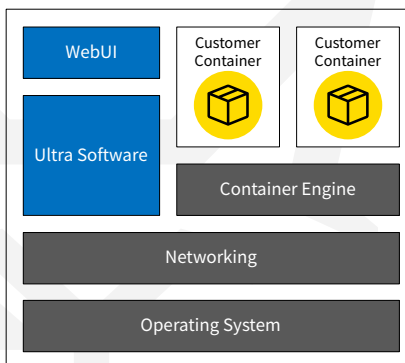
USB Device Drivers
USB device driver offload and automatic device recognition / classification



Field Loadable Software
Application software securely updatable in the field to support future capability uplifts

Embedded Processor Specifications

CPU	Low-power 700MHz ARM Cortex-A
Memory	512MB RAM (1GB option) 8GB non-volatile storage (64GB option)
OS	Custom embedded Linux OS with sub 10s boot time
Management	Web-based management & configuration user interface Open WebSocket APIs
Security	Software integrity verification and secure boot Read only filesystem; no data at rest
Wireless	Bluetooth v4.2 central and peripheral Embedded ISW option in development
Containers	LXC containerization



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