



# 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	4 GSA / Nett Warrior / STANAG compatible ports (1x Power, 1x EUD, 2x PAN) Robust circuit protection (overcurrent/overvoltage/reverse voltage)	
Power inputs	1x 8-36V DC Vbat power input + 1x bidirectional power for daisy-chaining (EUD) 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: 3x 2.0A (max 5.0A hub total)	
Data	USB 2.0 high-speed MTT hub; 3x DFPs or 2x DFPs + 1x UFP (mode dependent)	
USB PD	1x USB Power Delivery capable EUD port; enables EUD sinking host functionality	
Power	Smart: 1.0W typ, 1.5W max, Dumb: 0.6W typ, 1.0W max	
Physical	Dimensions: 145 x 42 x 18 mm (5.7 x 1.65 x 0.71 in), Weight: 145g (5.1oz)	
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 (connectors mated)	
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

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**Tactical IP Networking**  
 Multi-bearer IP bridging & routing to address the limitations of current architectures
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**Containerized Apps**  
 Deploy additional third party functionality as virtualized apps e.g. edge TAK Server container
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**Web User Interface**  
 Built-in web based UI for system setup & configuration of mission profiles
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**BMA Integrations**  
 Transparent integration of mission equipment with in-service apps to reduce operator workload
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**Power Management**  
 Monitoring of power usage per device & individually switchable power inputs / outputs
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**Network APIs**  
 Third party integration possible via APIs for power, status and management
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**USB Device Drivers**  
 USB device driver offload and automatic device recognition / classification
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**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

