



## UltraLYNX<sup>®</sup>

# Software Defined Hubs

Software defined data & power hubs for next generation dismounted soldier systems

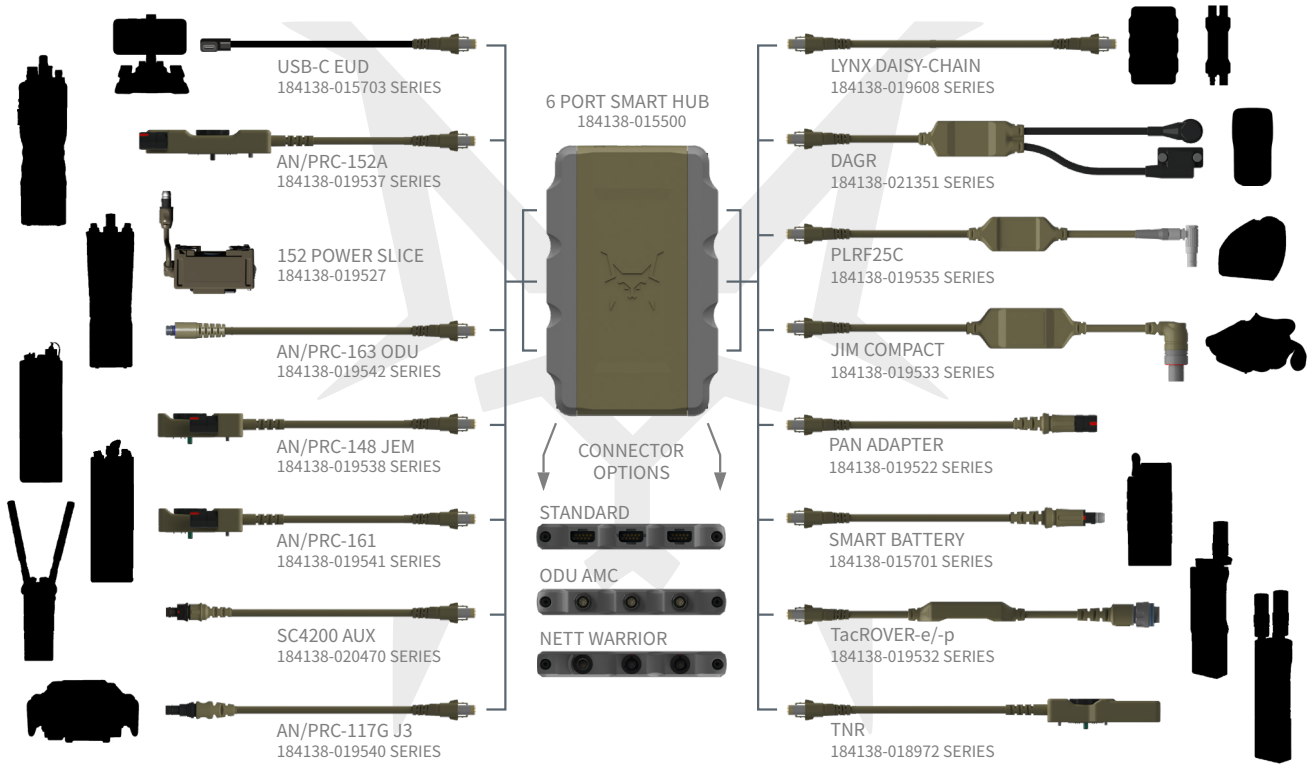


### Features & benefits

- 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 are decoupled from the 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.
- Available in 6 port or next generation 4 port configurations with various integrated connector options.
- Fully supported with optional cable packages and textile accessories.

Small, lightweight and cost effective smart hubs designed in the UK





## 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
Security	Software integrity verification and secure boot
Wireless	Bluetooth v4.2 central and peripheral Embedded ISW option in development

6 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 and Nett Warrior compatible smart PAN 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: 0.7W typ, 1.0W max	
Physical	Dimensions: 125 x 79 x 17 mm (4.9 x 3.1 x 0.7 in), Weight: 200g (7.1oz)	
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; fully functional with connectors unmated	
Reliability	20,000+hrs MTBF with high level of internal BIT coverage Reversionary mode ensures availability of power	