CORE® 6

Network and Radio Controller

Enhanced security and networks for commercial autonomous systems in contested and/or austere environments

CORE 6 is a modular secure network management solution – running open architecture – that provides additional security and connectivity for commercial autonomous platforms. This solution allows for a single or dual device configuration providing additional software defined radios.

Designed for Group 1–3 unmanned aerial vehicles (UAVs), the CORE 6 platform brings enterprise-grade, multi-enclave networking and secure communications to austere, low-SWaP tactical edge environments. By integrating dynamic spectrum awareness, application-aware SD-WAN control, and lightweight encryption in an expandable modular enclosure, CORE 6 enables small UAVs to serve as resilient network relays, airborne command posts, or mesh-aware ISR forwarders without compromising on security or mission agility.

Accelerating testing, fielding, and scaling of new capabilities will help maintain the critical edge.

Unlike typical hardware-based networking systems, our software-based CORE solution supports rapid configurations and technology upgrades, speeding time to capability. With its multiple interface options, the CORE architecture addresses a platform's networking and cybersecurity needs—and can host additional software-defined radios quickly and affordably.

CORE 6 flexibly, powerfully, and securely extends operational communications and networking capability for enhanced mission execution and is made in the USA.

CORE 6 delivers security and resiliency for autonomous systems at size and scale

SWaP
> "Low-cost. Attritable. No Regrets."
> Stackable to run dual enclaves and software defined radios

Flexible
> Containerized apps add AI/ML EW tools and future waveforms without hardware modification - mission-ready anywhere
> Vendor agnostic network infrastructure components configurable for future CONOPS
> Compatible with legacy and modern platforms and systems
> MOSA/SOSA aligned

Powerful
> Built for stealth –SWAT (Stealth Wage-Activation Trigger) wakes radios only when paged
> Optional radio integration: Silvus, TrellisWare, Wave Relay, Direct-to-Cell SATCOM span 70 MHz – 6 GHz for true spectrum diversity

Accessible
> T3 network management software delivers cross-node visibility into enterprise-wide system configuration and metrics, for local and remote monitoring or modification

Secure
> Multiple encryption layers, including robust data at rest encryption (DAR)
> Integrates CNSA 2.0 or CSfC behind an on-board router isolating red/black traffic
> Zero Trust Architecture compliance. Modern firewall supports deep packet inspection up to layer 7 of the OSI stack
> Made in the USA

Proven
> Built upon proven system components providing advanced communications and network optimization, cybersecurity, data encryption, and intuitive network management services
> Designed to MIL-STD-810H environmental, MIL-STD-461G electromagnetic optimized for austere environments
> Patented technology. Two independent security domains within a single chassis

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CORE 6 Specifications

Physical

Size (L x W x H)	4.53” x 3.35” x 1.18”
Weight	2 lbs

Form Factor

- 1-slot VNX+ chassis (compute + RF), stackable for multi-enclave
- Passive heatsink dissipating 40W per module + optional forced-air shroud

Power

- 10–36 V DC; 40 W peak / 30 W avg (single module)

Environmental (designed to MIL-STD-810)*

- **Temperature:** Method 501.6 Proc II (high temp), 502.6 Proc I (low)
- **Humidity:** 95% at 60 deg
- **Altitude:** 50,000 ft (operational)
- **Explosive Atmosphere:** Per MIL-STD-810 Method 511.5
- **Vibration:** Per MIL-STD-810 Method 514.8 Cat 4
- **Shock:** Per MIL-STD-810 Method 516.6: 20 G (operational)
- **Acceleration:** Per MIL-STD-810 Method 513.6: 5.5 G (operational)
- **Sand/Dust:** Per MIL-STD-810 Method 510.5 Blowing Sand
- **Salt Fog:** Per MIL-STD-810 Method 509.5

Configuration

- **Cooling:** Passive heatsink dissipating 40W per module + optional forced air shroud
- Flexible cryptography library that supports Unclass/CUI/SBU-E/SECRET operations
- Stackable config allows for multiple independent security domains
- SMARC form factor allowing for customization. 12-core ARM Neoverse N2 @ 2.2 GHz
- 32 GB LPDDR5 onboard
- 1 TB NVMe onboard

Operational I/O

- Fully customizable I/O panel supporting Ethernet/USB/RF and other connections
- GB Ethernet, USB 2.0, USB 3.0, Micro SMA RF, HDMI, and others are available

RF Front Ends

- Slot 1 (integrated into VNX+ module): Epiq SideKiq Mini-PCIe: 70 MHz–6 GHz, 100 kHz BW-step, 4G capable, ELINT capable
- Slot 2 (bolt-on expansion slots): SILVUS, WaveRelay, Trellisware

Management I/O

- GB Ethernet connected to a separate management plane

SDN Components

OS: Lightweight Linux host running kernel-based virtual machines, PODMAN containers, and/or Docker containers

Processor: SMARC form factor allowing for customization. 12-core ARM Neoverse N2 @ 2.2 GHz

RAM: 32 GB LPDDR5 onboard

SDD: 1 TB NVMe onboard

Routing: IPv4/6, OSPF-MANET, PIM-SM multicast, DiffServ QoS

Addressing: Dynamic Host Configuration Protocol (DHCP), Domain Name System (DNS), Network Address Translation (NAT), 802.1Q VLAN, Ethernet Virtual Connection (EVC), and VXLAN

VPN: IPsec VPN, Dynamic Multipoint VPN (DMVPN), Easy VPN, SSL VPN, and FlexVPN

MPLS: MPLS VPN, virtual routing/forwarding (VRF), and Bidirectional Forwarding Detection (BFD)

Security: Embedded KG-175N-compatible Type 1; FIPS-140-3; CSfC “Two-Site Gateway” package candidate

Waveforms

- Silvus MN-A, TSM-X, TrellisWare TW-950, Direct to Cell, WuR

Optional SDN Components

- Support for boundary defense protection system
- Native Linux bridging for VLAN tagging, isolation, trunking, and separation of system management plane from data plane
- Tactical SD-WAN for PACE selection across available links (TCMP)

Compliance

- MIL-STD-810H, MIL-STD-461G CE102/RE102

Qualification Status

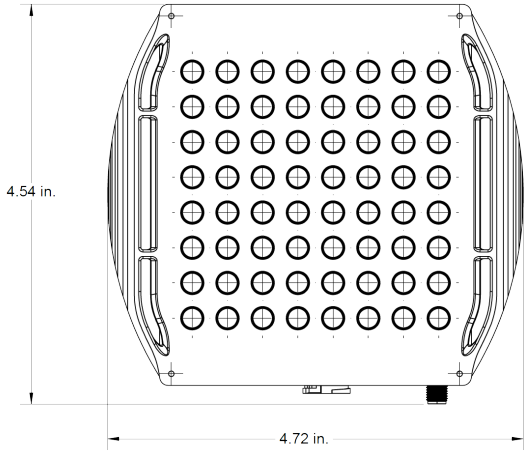
- EQT modeled but not tested (June 2025)
- EMI/EMC aimed for Nov 2025

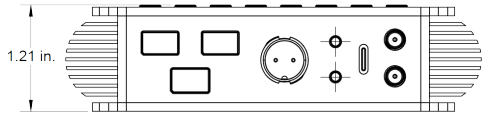
Roadmap Highlights

- TRL 7 flight demo Q1 FY26
- Initial LRIP lot (100 ea) Q1 FY26
- CSfC registration Q4 FY26

Optional Capabilities for CORE 6

- Wake Up on Receive
- 4G/5G
- Spectral agility





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