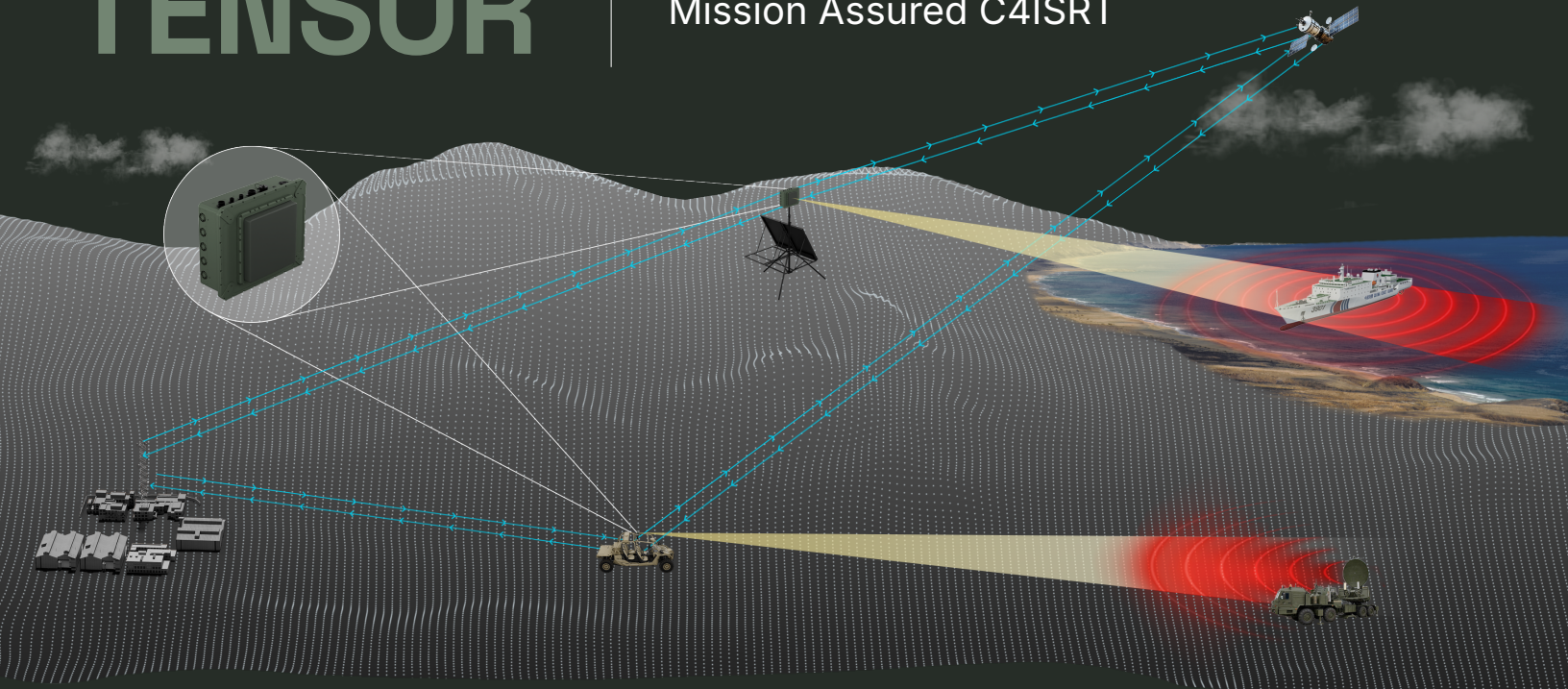


TENSOR

Mission Assured C4ISR



Tensor is a modular Electromagnetic Spectrum Operation (EMSO) system that delivers distributed sensing, spectrum intelligence, and resilient communications for contested electromagnetic environments. Tensor integrates Forterra's **Vertex** ground-based RF sensing, **Vektor** resilient communications, and **goTenna** LPI/LPD connectivity for distributed electromagnetic awareness. The system scales from single-node deployments to networked, multi-platform operations, allowing electronic warfare (EW) capabilities to adapt to evolving mission requirements.



Vertex provides persistent RF sensing for forward elements, using AI enabled direction finding with ML models to detect and classify high-value emitters such as jammers, radars, and communication systems. Multiple sensors operate cooperatively to improve accuracy, coverage, and resilience across the operational area.



Vektor provides maximally assured communications in DDIL environments, bonding multiple radio types and enabling automated failover to maintain connectivity while real-time link health monitoring detects degradation consistent with adversarial interference.



goTenna enables fully off-grid mesh networking and LPI/LPD communications bursts when traditional high-bandwidth communications are unavailable.

Together, Tensor delivers a scalable, open-architecture EW capability that prioritizes mission-relevant data, maintains assured communications paths, and accelerates decision-to-action timelines.

Forterra Electromagnetic Spectrum Operations (EMSO)

Real-time Situational Awareness of the EM Environment

MISSIONS

SPECTRUM CARTOGRAPHY

- Map electromagnetic activity across the operational area
- Provide real-time, geo-referenced spectrum awareness
- Identify low-interference zones to support mission success

RECOGNIZED AIR PICTURE

- Analyze RF activity to provide battlespace awareness of emitters
- Identify airborne and ground-based threats from RF signatures
- Geolocate emitters and generate lines of bearing to cue ISR and targeting

MARITIME DOMAIN AWARENESS

- Analyze RF activity to provide maritime and littoral awareness
- Identify vessels or suspicious activity from RF signatures
- Geolocate emitters and generate lines of bearing to cue ISR and targeting

VERTEX / VX10 SPECS



The **Vertex Intelligent Sensing Suite** is an RF effector that combines an ultra-wideband **AESA antenna**, COTS **software-defined radios**, and advanced **AI/ML signal-detection algorithms** in a highly capable, easily deployable, and attritable form factor.

| Antenna | |
|---------------|-----------|
| Bandwidth | 1-6 GHz |
| Polarization | Dual |
| Producibility | Metal CNC |

| Software Defined Radio (SDR) | |
|------------------------------|--------------------------|
| Tuning range | 20MHz to 6GHz |
| RF Modes | 2Rx, 2Tx, or 1 Tx / 1Rx |
| RF bandwidth | Up to 50 MHz per channel |

| On-edge Processing | |
|--------------------|--|
| GPU | 2 x NVIDIA ORIN GPU |
| Intelligence | AI enable signal clipping ML Detection models |

| Interfaces | |
|-----------------------------|--|
| Ethernet | |
| AC or DC Power | |
| 2x MIL-DTL-38999 Series III | |

| Physical | |
|------------|------------------------|
| Dimensions | 20" x 14" x 9" (WxDxH) |
| Weight | 20lbs |

| Power | |
|-------------|---------------------------|
| Supply | MIL-STD-1275 |
| Consumption | 80-200W cont. 220W max |

| Environmental | |
|--------------------|--------------|
| Operating temp | -20-55° C |
| Ingress protection | IP67 |
| Durability | MIL-STD-810H |

| Modularity | |
|---|--|
| SOCOM MOD Payload 6.1 mechanical interfaces | |
| Adaptable to CMOSS compliant VPX backplanes | |

VEKTOR / VC50 SPECS



The **Vektor Communications Suite** leverages modern routing and switching hardware to deliver link failover and load balancing across available communications paths, **providing a battlefield-proven SD-WAN in a modular, integrated communications package.**

| Network Links | |
|---------------|--|
| Cellular | Dual Modem 5G/LTE w/eSIM |
| WiFi | Optional 802.11ax (WiFi 6E) |
| SATCOM | Starlink |
| MANET | Silvus StreamCaster Persistent Systems MPU5 |

| | |
|--------------------|--|
| HF LPI / LPD Burst | goTenna X2m Pro SmartEdge |
| BYOD | Rapid integration w/add'l device types |

| Open Data Interfaces | |
|----------------------|---------|
| REST | gRPC |
| DDS / ROS | MQTT |
| TCP / IP | CoT/TAK |

| Physical | |
|------------|--------------------------|
| Dimensions | 15" x 13.5" x 5" (WxDxH) |
| Weight | 25-30 lbs. |

| Power | |
|-------------|----------------------------|
| Supply | MIL-STD-1275 |
| Consumption | 120-200W cont. 600W max |

| Environmental | |
|--------------------|--------------|
| Operating temp | -20-55° C |
| Ingress protection | IP67 |
| Durability | MIL-STD-810H |