SOTAS
Digital Communication Platform

Battlefied C4ISR Infrastructure Solution
SOTAS TNN
Secure, digital, interoperable communications

Added value for Users and System Integrators
SOTAS is a battlefield-proven, rugged, scalable, innovative system securing the technical and economic life span of your solution. SOTAS offers real operational advantages by providing the core system for integrating C4ISR assets into Size, Weight and Power (SWaP) optimized solutions. SOTAS is designed to comply with today’s and tomorrow’s Vehicle Electronic Architecture/GVA requirements. SOTAS systems comply with all relevant MIL-Specs.

Technology Highlights
- Gigabit Ethernet Switching (up to 27 ports), with multicast support
- Power over Ethernet (up to 16 ports)
- VoIP for WAN (FXO, FXS) and CNR (ATA / RATA function)
- VoIP PBX and Conferencing
- Dynamic IP routing, including MANET (ad-hoc) & QoS
- Intel / Windows / Linux computer on-board

SOTAS TNN Modularity
Mission-specific Tactical Network Node (TNN) services can be made available in one box, but also in separate modules. This modular functional packaging concept helps in optimizing installation footprints. Typical TNN configurations are:
- **Tactical Comms** module, for intercom, radio gateway and VoIP functionality.
- **Tactical Comms** and **Router/Switch** modules, to provide a complete C2 infrastructure support
- **Tactical Router/Switch** and **Sensor integration** modules, for integration of the vehicle’s ISR capabilities
- **Tactical Comms**, **Tactical Router/Switch** and **On-board computer** modules, for a fully integrated C2 infrastructure support, including BMS / Conserver application hosting.

Power Input
- MIL-STD 1275 compliant (connection to vehicle’s power harness)
- Auto-resettable fuse
- Designed to meet tempest requirements

Physical
- Weight: 5.5 to 11 kg
- Dimensions: 290x195 [mm] (WxD);
- Height: 105 to 200 [mm]
- Dissipation: 50 to 260 W (depending on configuration)

Environmental
- MIL-STD-461 F (Ground Army)
- MIL-STD-810 G (tracked and wheeled shock/vibration; A/B/C climatic zones)
- Water-tight IP-67 compliant (IEC 60529)
- MIL-STD 1275 (Military Vehicle power, filtering)
- CE compliant

Tactical Communications module
- CNR Audio and PTT interface (up to 6)
- Telephony FXO / FXS (up to 3) and Field telephone interface
- Shared radio access and Intercom (local and networked)
- VOIP gateway access to radios, users, phones (ATA)
- VOIP PBX (SIP and LDAP support)
- Audio codecs for low-bandwidth data links (MELP, G729, …)

Tactical Router / Switch module
**Network & Data interfaces**
- Ethernet, up to 27 ports (10/100/1000 Mbps electrical, 100/1000 Mbps optical)
- Power over Ethernet (802.3 AT)
- USB & RS232 serial data, for CNR data

**Ethernet switching**
- Spanning Tree
- QoS support compatible with 802.1P priority queuing

**IP-Routing**
- IPv4 and v6 supported
- Dynamic unicast/multicast routing (RIP, OSPF, OLSR, IGMP, PIM, …)
- Differentiated Services QoS support (also for VHF networks)
- PPP and PPTP, GRE

**IP functions**
- DHCP and DNS support
- NTP, with GPS time input
- Security: NAT, Firewall and IPSec

Cisco WAN Router module
- Embedded rugged Cisco router, for interoperable WAN Ethernet/IP access
- EAL 4+ compliant

On-Board Computer module
- CPU: Intel® processor
- Operating system: Windows / Linux
- USB & KVM support (Keyboard, Video-monitor, Mouse)

Sensor integration & HUMS module
- Serial ports (RS232/RS422/RS485), for GPS or device control
- GPS support for NMEA and PPS in/out.
- GPIO
- CAN Bus (with J1939)
- Analogue Video (PAL / NTSC) with MPEG, JPEG and H264
- Extension slots (PC104 standard)

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