

Network Connectivity for Disadvantaged Platforms at the Tactical Network Edge



The Small Tactical Terminal (STT) KOR-24, co-developed by ViaSat and Harris, is a two-channel radio designed to meet the needs of users who have Size, Weight, and Power (SWaP) constraints but need the information available on Link 16 networks and/or tactical VHF/UHF. The STT brings mobile network connectivity to tactical warfighters and disadvantaged platforms such as ground vehicles, helicopters, UAVs, small boats, and Network Enabled Weapons (NEW). The STT is ruggedized to meet or exceed the demanding environmental requirements of those disadvantaged platforms. This two-channel Link 16 and VHF/UHF radio is packaged in an industry-standard compact form factor and is available at an affordable cost.

The STT brings real-time situational awareness, location, and command and control to the warfighter at the tactical network edge. In a single radio terminal, the edge user has access to both air and ground (friendly and enemy) situation data and can provide target data to the network in a secure and reliable manner.

The STT can be used to bridge the gap in users' awareness between the air picture provided by TADIL J/Link 16, and the ground picture provided by VMF and other VHF/UHF data link formats. This two-channel radio dramatically reduces data latency and improves data integrity between the traditional network platform users and the edge users for both situational awareness and command and control. Link 16 built-in identification means that STT terminals provide blue force reporting to reduce blue-on-blue engagements. With standardized TADIL messages and Ethernet interfaces, the STT can be used with multiple computers in a wide range of applications.

NSA CERTIFIED

NETWORK CONNECTIVITY AT THE TACTICAL EDGE

- » Dual channel radio
- » Link 16 and VHF/UHF waveforms
- » Voice and data capable
- » Low size, weight, and power
- » Lower acquisition costs
- » Multi-mission, Multi-user, Multi-waveform
- » New JTRS waveforms as they become available
- » Meets current and future requirements

STT AT-A-GLANCE

SITUATIONAL AWARENESS

- » Blue Force Tracking
- » Air and Surface Picture
- » Interfaces with:
 - ViaSat Link 16 Toolset
 - FalconView™ with Cursor on Target
 - FliteScene™
 - Air Defense Systems Integrator (ADSI®)
 - Joint Range Extension (JRE)

COMMAND AND CONTROL

- » J12 Mission Management to any non-C2
- » Status/Weapons Load/Play Times
- » WILCO/CANTCO

TARGET ATTACK

- » Shortens Kill Chain—F2T2EA (Find, Fix, Track, Target, Engage, Assess)
- » JTAC Target POSID/9-line/BDA
- » Target Update
- » Video, Imagery, and Data
- » Mobile Target Attack

Small Tactical Terminal Specifications & Technical Features

SPECIFICATIONS & TECHNICAL FEATURES

Frequency Range	30 to 512 MHz VHF/UHF; 960 to 1215 MHz Link 16
Transmission Modes	Simplex or half-duplex 16 kbps data, PT or CT Link 16 TDMA, All OP modes and Enhanced Throughput
Antenna Ports	VHF/UHF (2): 50 Ω; Link 16 (2): 50 Ω
DC Power Input	28 VDC per MIL-STD-704F; 1.5A Rx, <10A Tx
Configuration/Control/Data Interface	Ethernet 10/100 Base-T
Dimensions (WHD)	5 x 5.6 x 9 in; +2.74 in deep front panel
Weight	16.5 lb
Crypto Modes	KY-57, ANDVT/KYV-5, KG-84C, KGR-96, KGV-8, KGV-11, CDH

RECEIVER

Adjacent Channel Rejection	55 dB
IF & Image Rejection	>65 dB

TRANSMITTER

Power Output	250 mW to 5 W (VHF/UHF); 50 W (Link 16) with 34% TSDF
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WAVEFORMS

VHF/UHF	ASK/FSK MIL-STD-188-220B/C/D, HaveQuick II, SINCGARS, Voice and Data
L-Band	Link 16 Data and Voice including Enhanced Throughput (ET) modes

ENVIRONMENTAL

Operating Temperature	-30° C to +52° C with forced convection cooling; -30° C to +71° C with host platform ECS cooling
Storage Temperature	-54° C to +90° C
Relative Humidity	≤90% non-condensing / MIL-STD-810F
Altitude	50,000 ft
Shock	52 G 30 msec all axes / MIL-STD-810F
Vibration	Jet MIL-STD-810 Method 514.5 Category 24 Helo MIL-STD-810 Method 514.5 Category 14

STANDARD FEATURES

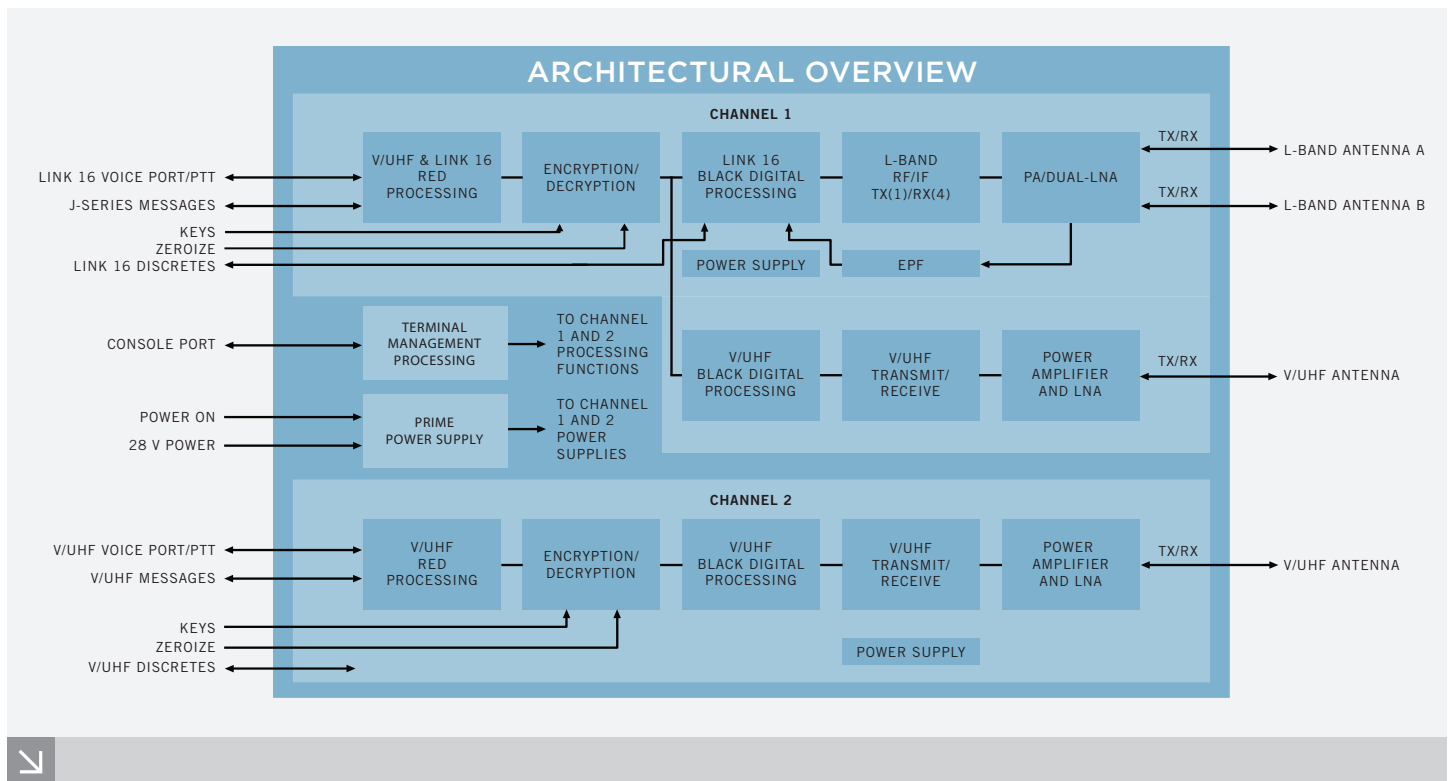
- » Rugged, small, and lightweight
- » SCA v2.2, reprogrammable embedded software
- » Advanced power management
- » VHF/UHF and Link 16 voice/data
- » MIL-STD-188-220 B/C/D protocol
- » Network Enabled Weapon Messaging
- » Link 16 frequency remapping
- » TADIL J/K messages
- » Crypto Modernization ready
- » Modular design for easy growth
- » Integral VHF/UHF and L-band transmitter power amplifiers
- » VHF/UHF relay capability
- » Antijam waveforms
- » Interoperable with many radios including: JTIDS, MIDS-LVT, MIDS JTRS, VHF/UHF LOS (MIL-STD-188-220 B/C/D) with PRC-117, PRC-152, ARC-210, Improved Data Modem (IDM)
- » Geodetic navigation

OPTIONAL FEATURES

- » External V/UHF PA
- » Mounting tray with fan

GROWTH CAPABILITIES

- » High rate VHF/UHF network waveforms
- » SRW, ANW2, DAMA, IW
- » Link 16 precision navigation



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