SHARKLINK SURFACE DATA TERMINAL (SDT)

WIDE BAND SURFACE TERMINAL

Cubic's current-generation Surface Data Terminal is available now, and is optionally exportable!

Cubic's Sharklink SDT is a new, high performance surface data terminal that supports secure, long range, high data rate communications with airborne and shipboard platforms equipped with a DoD standard Common Data Link (CDL) data terminal. Sharklink's real-time imagery, full-motion video, audio, and other sensor data are instantly available to provide the ship with the detailed information they need for operations ranging from humanitarian relief to surface combat. Sharklink is specifically designed to operate in harsh maritime environments.

Sharklink supports Standard and Bandwidth-Efficient CDL waveforms with Cubic's Multiband Miniature Transceiver, omni and directional antennas, and a solid state power amplifier.

Sharklink supports communication with Ku-band CDL-equipped aircraft. S- and C-band operation is available as an option.
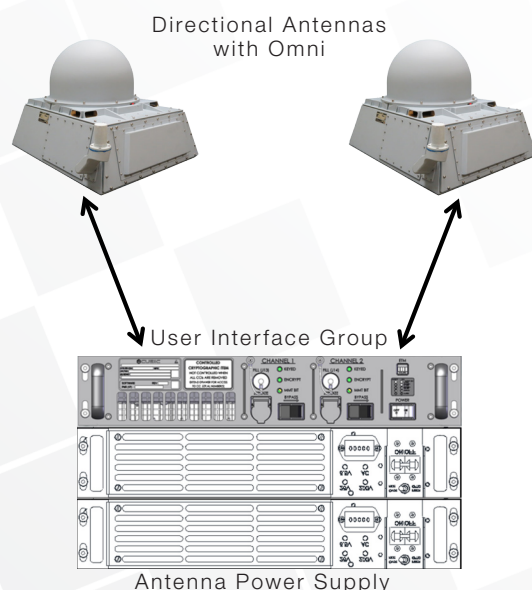
Sharklink provides data security with selectable Type 1 (via the KI-16 encryption module) or AES encryption to protect all information from exploitation, and maintains compatibility with older airborne terminals with a crypto bypass option.

PRODUCT DESCRIPTION

The Sharklink SDT uses Common Data Link (CDL), the DoD's intelligence, surveillance, and reconnaissance (ISR) data link standard. It supports data transfers to and from off-ship data terminals at data rates ranging from 200 kbps to 50 Mbps. The system integrates a high-gain directional Ku-band antenna for long range operations with an omni-directional antenna for signal acquisition and robust close-in operations. Automatic handoff between the directional and omni antennas is provided.

The Sharklink architecture is scalable and supports up to 16 above-deck antenna groups and multiple below-deck user interface groups. Any of the multiple below-deck users can connect to any of the above-deck antennas for maximum operational flexibility.

Each above-deck antenna can support an independent link to an off-ship CDL terminal, or multiple antennas can be operated together in paired handoff mode to mitigate line-of-sight blockages by the ship's superstructure.

Directional Antennas with Omni

User Interface Group

Antenna Power Supply

CUBIC

KEY FEATURES AND BENEFITS

- Integrated CDL terminal with high-gain directional antenna
- Integrated Omni antenna for near-field operations
- CDL (Std-CDL and BE-CDL) specification compliant
- Software Configurable for surface (SCE) or airborne (PCE) operation
- Transmit and receive data rates up to 50 Mbps
- Type 1 encryption
- Ship motion compensation for the directional antenna
- Ku-band digital TX and RX, 14.4 to 15.35 GHz

PERRFORMANCE CHARACTERISTICS RF

- Ku-band digital TX and RX, 14.4 to 15.35 GHz
- S-band digital TX or RX, 2.2 to 2.5 GHz (Option)
- C-band digital TX or RX, 4.4 to 4.99 GHz (Option)

DATA RATES

- Full duplex 200 kbps – 50 Mbps

ANTENNA, KU-BAND

- 27 dBi gain (Ku Directional)
- 4 degrees half-power beamwidth (Ku Directional)
- 4.5 dBi gain (Ku-band Omni Antenna)

ANTENNA, S- & C BAND (OPTION)

- 1.5 dBi gain (C-band Omni Antenna)
- -1.5 dBi gain (S-band Omni Antenna)

EQUIVALENT ISOTROPIC RADIATED POWER (EIRP)

- 32 dBW, Ku-band Directional Antenna
- 5 dBW, Ku-band Omni Antenna
- 9.5 dBW, C-band Omni Antenna
- 6.5 dBW, S-band Omni Antenna

ENCRYPTION

- NSA Type 1
- AES-256

VIDEO COMPRESSION/DECOMPRESSION

- MPEG-2
- H.264 available
- Analog RS-170

ENVIRONMENTAL

- Vibration and shock: MIL-STD-810G
- Shock: MIL-STD-901D, Grade B
- EMI/EMC: MIL-STD-461F
- Operating temperature: -30˚C to +60˚C

PHYSICAL CHARACTERISTICS

- Antenna Group
- Size: 25" W, 33" L, 22" H
- Weight: 88 lbs.
- AC-DC Converter, Below Decks:
  - Size: 19.0" W, 16"L, 3.42" H
  - Weight: 20 lbs.
  - Power: 400 W, 115 VAC, 60 Hz (each antenna group)

USER INTERFACE GROUP

- Size: 19" W, 22" L, 3.5" H
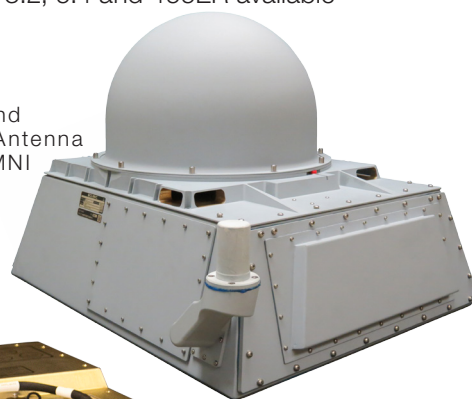- Weight: 30 lbs.
- Power: 130W, 115 VAC

INTERFACES

- Ethernet: 10/100 BASE-T Ethernet interfaces
- RS-232
- DS-102 key fill interface
- Analog RS-170 video

WAVEFORM-PROGRAMMABLE

- STD-CDL
- BE-CDL Rev A / Rev B
- Tactical 1.6, 3.2, 6.4 and 466ER available
- NET-T
- VNW

Ku-Band Directional Antenna with OMNI

Dual-channel User Interface Group with crypto