

Common Data Link (CDL) portable ground system



Antenna mounted on telescoping tripod



Ground system transit cases

BAE Systems' CDL portable ground system provides a complete, self-contained, low maintenance common data link system packaged in rugged one man lift transit cases that can be rapidly deployed for communication with any Standard CDL airborne platform.

Description

The system includes high gain directional antenna and high power amplifier for superior range performance. System setup and operation is fast and simple, with easy-to-use control GUI, automatic antenna alignment using differential GPS, closed-loop tracking to maintain peak signal strength, and automated scanning to reacquire links after extended blockage conditions. The antenna mount may be stacked on any level platform, or locked onto the telescoping tripod included with the system. To further simplify operation, an auxiliary omni antenna is provided as an option for close-in-test and takeoff/landing operation.

Features

- Type 1 cryptographic & TEMPEST security
- Standard-CDL Rev. G compliant waveforms up to 45 Mbps
- Configurable for air or ground operation
- Transceiver capable of operating in any RF band (e.g. C, X, Ku, K, Ka)
- Upgradeable waveform software runs on powerful, programmable devices (GPP, FPGAs, network switches)
- Proven antenna pointing, tracking, and scanning software
- Automatic antenna alignment using embedded differential GPS
- Easy to use, customer designed command/control GUI
- Wideband, tunable transceiver with superior channel isolation and spectral emissions
- Compact, low profile, high slew antennas, with 2-dim (AZ/EL) steering
- Programmable transceiver can be configured for CDL and SATCOM (ITU, WGS) spectral masks
- Ethernet (annex B) and ATM (annex A) interfaces
- Comprehensive system BIT performs card level fault isolation, with digital, IF, RF loop-back capability

Specifications

Standard capabilities

Standard CDL compliant waveforms

Symmetric/asymmetric data rates – 200 Kbps, 2 Mbps, 10.71 Mbps, 44.73 Mbps

Transport formats – ethernet (annex B), ATM (annex A)

Ku-Band

14.4 – 14.83 GHz RL

15.15 – 15.35 GHz FL

IF tuning in 5 MHz steps

28 dBi directional antenna and 5 dBi Omni antenna

25W SSPA

Video – MPEG-2, MPEG-4

Audio – Full duplex CVSD, VoIP, PTT

Interfaces

10/100/1000 base-T ethernet

RS-170 video (optional)

Analog audio (optional)

802.1D layer 2 switching

Crypto (zeroize, fill, battery)

System MTBF exceeds 2000 hrs

Physical characteristics

Antenna transit case (includes radome)

Size: 24 in. x 12.7 in. x 22 in.

Weight: 51 lbs.

Remote electronics transit case

Size: 21 in. x 9 in. x 22 in.

Weight: 51 lbs.

Local electronics transit case

Size: 21 in. x 9 in. x 22 in.

Weight: 51 lbs.

Tripod transit case

Size: 33 in. x 15 in. x 15.5 in.

Weight: 56 lbs.

Transit cases water and dust proof

Humidity: 0-95%, non-condensing

Vibration per MIL-STD-810F

Operating temperature: -40°C to +70°C

Input power <400W

Input power source 120 VAC or 240 VAC, 50/60 Hz

Ground system unique features

Rugged one man lift transit cases with integral lift handles

Low loss Ku-band radome

Automatic antenna alignment using embedded differential GPS

Telescoping antenna provides up to 57" maximum height

Two camouflage ground covers provided for tactical environment

Easy removal, easy install COTS air inlet filters provided

Auxiliary omni antenna for close-in operation

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