Network LinkBox Airborne Multi-Protocol Transmitter-Receiver and Data Link Controller

Troll’s LinkBox is a revolutionary data link capable of providing downlink and optional uplink of multiple IP streams and control data. Its built-in multi-port Ethernet switch allows for the seamless connection to cameras, mapping systems, tracking antennas and other sensors. Radio options are flexible and configured for each customer’s application.

Available in standard 1/2 ATR (Air Transport Rack) units it features a built-in touch screen monitor that provides operators with the ability to configure and control the aircraft’s entire data-link system. The LinkBox is easily controlled from third-party mapping systems. This greatly reduces the complexity in the cockpit placing all systems controls in one place (no additional control heads required).

Video, Audio and Data options
The LinkBox can support any video input including multiple video streams. The LinkBox support both internal encoding or and also stream from an external source over IP. The transmitted video can be displayed on the local display or optional external HDMI monitor. Audio is supported in both analog and embedded modes. Data may be sent over serial or via built-in Ethernet links. Bi-directional data options are available to support full network bridging and routing.

Unidirectional and Bidirectional Air-to-Ground Communications
Troll’s LinkBox can be configured with any number of radio options including unidirectional DVB-T, bidirectional DVB-T and TDMA based data link technology. The LinkBox is not dependent on any one transmission standard and can easily be adapted to customer and technology requirements. Our systems experts will work with you to find the perfect configuration for your needs.

Troll’s Link Box distills the entire system into a 1/2 ATR controller that simplifies the operation and management of:

- Internal or external microwave radios
- Modulation, error correction, bandwidth
- Encoding, decoding and encryption
- Antenna monitoring, switching and control
- Power monitoring and distribution
- Video control and monitoring
- Audio control and monitoring
- Multi-port Ethernet switching and optional wireless routing
- PC application for local or remote control of full system
- Interfaces for Aero and Churchill mapping systems (complete system control)
Unidirectional or Bidirectional Data Link

Network LinkBox

Transmitters from 300MHz to 15GHz

SPECIFICATIONS

**Frequency Range:** UHF to Ku
**Power Amps:** 5W to 25W

**General**
**Encryption/Decryption:** BCrypt1 128/256 or specified by customer
**Certifications:** RTCA DO-160

**Environmental**
**Operational Temperature:** -30˚C to 65˚C
**Humidity:** 0 to 95% non-condensing
**Altitude:** 25,000ft (8,000m)
**Cooling Air Displacement:** 10 CFM

**Mechanical**
**Dimensions:** 12.56 Long x 4.85 Width x 7.65 Height
**Weight:** 13lbs (5.9 kg)
**Connections:** All connections on front, cooling rear
**Mounting:** 1/2 ATR tray (included)

**Power Distribution**
**Power in:** 22-32 VDC, 20W Standby, 560W-20A MAX
**Power out:** 4 x 13VDC, max 150W
4 x 28VDC, max 300W

**Video**
**Video input:** 2 x HD-SDI, Composite
**Video output:** 2 x HDMI

**Other**
**Ethernet:** 8 x 10/100 copper interface (built-in 8 channel Switch)
**USB:** 5 x USB2
**Serial:** 6 x 4 RS232, 2 RS422
**RF:** Up to 4 input/output, TNC or N

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the Data Link Experts