



communications
Communication Systems-West

JSIT - Joint Synchronization Information Transceiver

Data Link Products

The JSIT is a small, lightweight communications solution with the capability to transmit and receive sensor data from a variety of operational platforms. The JSIT transmits in Ku-band and receives in Ku-, C-, and L-band. The JSIT is compatible with the combat-proven ROVER III receiver and can be configured for either airborne or ground operations.

PRODUCT DESCRIPTION

The JSIT provides the capability to transmit and receive sensor data, both video and imagery. It provides situational awareness, targeting, surveillance, and battle damage assessment. It enhances air/ground coordination, reducing time-on-target for close-air support. Applications include convoy protection and other time-critical operations where eyes on target are required.

JSIT transmit capability is Ku-band digital. Receive capabilities are in Ku/C-band digital and C/L-band analog. The JSIT has field-proven interoperability with such platforms as Predator, Shadow, Dragon Eye, Litening Pod and others. It can receive imagery from advanced communication systems such as Multi-Role TCDL and MP-CDL.

Typical Ground Configuration



Typical Airborne Configuration



KEY FEATURES & BENEFITS

- Transmit
 - Ku-band
 - OQPSK Modulation
 - Data Rates: 3.2, 10.71 Mbps
 - Forward Error Correction
 - 15 Watt RFE Power Amplifier (Standard)
- Receive
 - Ku/C/L-band
 - BPSK / OQPSK Modulation
 - Data Rates: 2.0, 3.2, 10.71 Mbps
- Included Antennas
 - Ku-band 2dBi Omni Antenna
 - C/L-band Combined Receive Antenna
- Power: 28 VDC Required for Modem and RFE
- Laptop
 - Daylight readable laptop via Ethernet
 - Extended battery life of 8-10 hrs via BA5590 Tactical Battery Adapter
- Software
 - Control GUI
 - Pre-mission Configuration
 - Automatic Frequency Acquisition
 - Software Configurable
 - Waveform
 - Frequency, Band and Channel
 - Video Protocol
 - Video Display Software
 - MPEG-2 DVR Player
 - H.261
 - Analog
 - MPEG-2 Encoder / Decoder
 - Integrated H.261 Decoder
 - Optional Features
 - High Gain Directional Antennas
 - 5 Watt RFE
 - Other RFE and Antenna Configurations

640 North 2200 West
P.O. Box 16850
Salt Lake City, UT 84116
Tel: 801-594-3473
Fax: 801-594-2908
www.L-3com.com/csw

SPECIFICATIONS

Joint Synchronization Information Transceiver

PERFORMANCE CHARACTERISTICS

Ku-band Digital Transmit & Receive:

- 14.4 to 14.83 GHz and 15.15 to 15.35 GHz, 5 MHz Steps
- MPEG-2 Video

L-band Analog Receive:

- 1710 MHz to 1840 MHz, 0.5 MHz Steps
- NTSC/RS-170 Video

C-band Analog Receive:

- 4.4 GHz to 5.85 GHz, 1.0 MHz Steps
- NTSC/RS-170 Video

C-band Digital Receive:

- 5.25 GHz to 5.85 GHz, 1.0 MHz Steps
- H.261 Video

Antennas

- Ku-band Hemispherical Omni (Standard):
 - Max Gain: 5 dBi
 - 3dB Bandwidth: 120°
- C/L-band Toroidal Omni (Optional):
 - C-band Gain: > 4 dBi at Horizon
 - L-band Gain: > 0 dBi at Horizon
- LNAs: Supplied with antennas, Powered via RF cable

Interfaces:

- Ethernet 10/100 BaseT
- Coaxial TNC RF Antenna Connector
- RS-422
- RS-170 (NTSC Video)

Power: 28 VDC External Power required for Modem and RFE
BA5590 tactical battery adapter for laptop

PHYSICAL CHARACTERISTICS

Modem

- Size: 9.3" x 5.6" x 3.4"
- Weight: 4.75 lbs
- Power: < 30 Watts



RFE (15 Watt PA, Standard):

- Size: 10.3" x 5.6" x 3.5"
- Weight: 6.0 lbs
- Power: 120 Watts



Ku-band Antenna (Hemispherical Omni, Standard):

- Size: 2.0" diameter x 1.5" tall
- Weight: 0.2 lbs



C/L-band Antenna (Toroidal Omni, Optional):

- Size: 4.9" diameter x 7.1" tall
- Weight: 1.5 lbs



Vibration & Shock (Designed To):

- MIL-STD-810F
- RTCA/DO-160D

Altitude:

- 50,000 Feet

Temperature, Operating:

- -20°C to +49°C

GROWTH OPTIONS

Triple DES Encryption

2 Mbps Transmit Data Rate

200 Kbps Transmit and Receive Data Rate

Rotary and Fixed-Wing Aircraft



Manned and Unmanned Aerial Vehicles



For further information on the JSIT contact Al Modrovsky:

L-3 Communications
Communication Systems - West
640 North 2200 West
P.O. Box 16850
Salt Lake City, Utah 84116-0850
Tel: 801-594-3473
Fax: 801-594-2908
www.L-3com.com/csw/product
Albert.T.Modrovsky@L-3com.com

Data contained within this document are summary in nature and subject to change at any time at L-3 Communications' discretion.



On-the-Move and Fixed Ground Terminals



communications
Communication Systems-West