L3HARRIS®
FAST. FORWARD.

ROVER® 6Si TRANSCEIVER

The next generation of rugged, all-in-one, transportable ROVER radios

The L3Harris ROVER 6Si is an upgrade to the popular, widely fielded ROVER 6i transceiver. Expanded frequencies, additional processing resources for capability growth and other enhanced features set it apart from earlier ROVER products. This rugged and reliable transceiver transforms sensor-to-shooter networking, allowing increased levels of collaboration and interoperability with numerous manned and unmanned airborne platforms.

PRODUCT DESCRIPTION

Designed for air, surface and maritime use, the L3Harris ROVER 6Si Transceiver provides real-time, full-motion video (FMV) and other network data for situational awareness, targeting, battle damage assessment, surveillance, relay, convoy overwatch operations and other situations where eyes-on-target are required. The ROVER 6Si Transceiver has two receiver channels. This frequency and spatial diversity provides link redundancy, robust reception and resiliency to platform shadowing, multi-path interference, line-of-sight blockages and RF interference. With an unmatched waveform set, ROVER 6Si is interoperable with virtually all large airframes, UAVs and targeting pods in theater today.

NOTABLE ENHANCEMENTS

- High-definition video
- Expanded S-Band and UHF bands
- Signal and waveform search
- Updated digital processing and additional waveforms
- Improved RF performance

POTENTIAL APPLICATIONS

- Man-packable communications
- Tactical Operations Center communications
- Vehicle-mounted communications
- Airborne communications
- Maritime communications

Combining high-def video and radio communications with proven reliability

KEY FEATURES

- Secure digital communications
  - 256-bit AES
- Multiband reception and transmission
  - Five-band operation (UHF, L, S, C and Ku)
- High-definition video encoding/decoding
- Signal and waveform search
- Transmit capable
  - External transmitter control
  - Transmitter amp blank and enable signals
- Two reception channels
  - Same or different bands
  - Diversity reception from a single data source with two receive antennas
  - Two external receiver interfaces
- Various powering options
  - Accepts 10 to 32 VDC
  - AC/DC battery eliminator
  - BA-5590 battery-compatible
- Web browser GUI control

SPECIFICATIONS

PERFORMANCE CHARACTERISTICS

Transmit and Receive Bands[1]

- Ku-Band: 14.40 GHz to 14.83 GHz and 15.15 GHz to 15.35 GHz, 1.0 MHz steps
- C-Band: 4400 MHz to 4950 MHz and 5250 MHz to 5850 MHz, 1.0 MHz steps
- S-Band: 2025 MHz to 2110 MHz and 2200 MHz to 2500 MHz, 0.25 MHz steps
- L-Band: 1625 MHz to 1850 MHz, 0.25 MHz steps
- UHF: 225 MHz to 512 MHz, 1 kHz steps

Data Rates and Waveforms

- CDL (STANAG 7085): 200 kbps to 45 Mbps
- BE-CDL: 200 kbps to 45 Mbps
  - Modes 1–15, 101–105
- Tactical: 1.6 Mbps to 6.4 Mbps
- DDL: 1.5 Mbps and 4.5 Mbps (receive only)
- VNW: 50 kbps to 5 Mbps
- Legacy ROVER 455k: 455 kbps (receive only)
- ROVER 466ER: 466 kbps
- Analog FM
- DVB-T: 3.75 Mbps to 21.11 Mbps (receive only)

Video

- High-Definition Video: 1080p30, 1080p25, 720p60, 720p50,
- Standard-Definition Video: 480i29.97 (NTSC), 576i25 (PAL)
- H.265 HD (available via future software update)
- H.261 (decode only)
- H.264
- MPEG-2 (legacy-compatible)
- MPEG-4 part 2
- MJPEG

Encryption and Decryption

- 256-bit AES

PHYSICAL CHARACTERISTICS

SWaP

- Size: 17.2 cm (w) x 10.9 cm (h) x 34.1 cm (d) (without battery) 17.2 cm (w) x 10.9 cm (h) x 44.7 cm (d) (with battery)
- Weight: < 4 kg. (without battery)
- Power: 10 to 32 VDC, 51 watts max BA5590 or BA2590 battery Battery eliminator for AC or DC input

Environmental

- Immersion: 1 meter of water for up to 30 minutes
- Shock: 3-foot drop (without battery) 20 G, 11 msec (terminal sawtooth peak (operating)
- Altitude: 30,000 feet (9,100 m) (operating)
- Temperature: -40 °C to +60 °C (operating, ambient) -40 °C to +70 °C (operating, cold plate or forced air) -40 °C to +85 °C (non-operating)

External Interfaces

- 100 Base-T Ethernet, IPv4 and IPv6 networking
- RS-232 GPS[4] reception
- DAGR and NMEA types supported
- BNC HD-SDI and composite analog video in and out ports
- Dual-antenna control interfaces
- RF Receive ports support DC Bias power control (for external LNA power)
- Net-T spoke-compatible

Antenna Support

- KuDa, MDAS, E-CLS, Ku-Omni and CLS-Omni

COMPRESSION AND WAVEFORMS

	MJPEG	ANALOG VIDEO	H.261[2]	MPEG-4	MPEG-2	H.264	H.265[3]
VNW	X	X		X	X	X	X
FM Analog		X					
ROVER 455k		X	X				
ROVER 466ER		X		X			
CDL	X	X		X	X	X	X
BE-CDL	X	X		X	X	X	X
Tactical	X	X		X	X	X	X
DDL		X				X	
DVB-T					X	X	X

1. With external RF amplifiers and antennas
2. H.261 is decode only
3. Planned future enhancement
4. GPS receiver not included.

ROVER® 6Si Transceiver

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