

ROVER® 6Sc TRANSCEIVER

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

The L3Harris ROVER 6Sc is a new category, and upgrade to the popular, widely fielded ROVER 6 transceiver family, enabled with encryption for international coalition use. Expanded frequencies, additional processing resources for capability growth, Crypto Core Modernization 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 6Sc 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 6Sc 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 6Sc 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
- > Coalition interoperable Cryptographic Core Modernization
- > 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
 - US and coalition cryptographic interoperability
 - Cryptographic Core Modernization
 - 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 Bands¹

- > 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

- > Cryptographic modernization
- > 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 GPS⁴ 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 OUT	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® 6Sc Transceiver

© 2020 L3Harris Technologies, Inc. | 04/2020 | BCS | 20-DSD-228 | Rev-201

These item(s)/data have been reviewed in accordance with the International Traffic in Arms Regulations (ITAR), 22 CFR part 120.11, and the Export Administration Regulations (EAR), 15 CFR 734(3)(b)(3), and may be released without export restrictions.

L3Harris Technologies is an agile global aerospace and defense technology innovator, delivering end-to-end solutions that meet customers' mission-critical needs. The company provides advanced defense and commercial technologies across air, land, sea, space and cyber domains.

Use of U.S. DoD visual information does not imply or constitute DoD endorsement.



L3HARRIS®
FAST. FORWARD.

1025 W. NASA Boulevard
Melbourne, FL 32919
t 833 537 6837
CSW.Products@L3Harris.com