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ROVER® 6 VS. ROVER® 6S PRODUCT FAMILY COMPARISON

The L3Harris ROVER 6S is the next generation upgrade to the popular, widely fielded ROVER 6 transceiver. Expanded frequencies, additional processing resources for capability growth, Crypto Core Modernization and other enhanced features set it apart from earlier ROVER products. The ROVER 6S maintains all of the proven features, mechanical and electrical interfaces, and form-factor of the ROVER 6, while adding new capabilities. Only the video interfaces have changed to accommodate High Definition video with industry standard connectors.

INTERNATIONAL COALITION INTEROPERABILITY

The ROVER 6S family of transceivers is available in three different configurations, ensuring its game-changing capability can be made available to each coalition nation.[1]

- The ROVER 6S is suitable for US and FVEY use, employing NATO/U.S. waveforms and the KIV 700A crypto core; AES encryption is included
- The ROVER 6Sc is intended for all of NATO and other authorized coalition nations, employing the NATO/U.S. waveforms and the CCM 700A crypto core; AES encryption is included
- The ROVER 6Si is also for use by any NATO or coalition nation, employing the same waveforms as the ROVER 6S and ROVER 6Sc, but without integrated modernized cryptographic core; AES encryption is included

ROVER 6

ROVER 6S

1. Export authority subject to US Government approval for each purchase


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

Combining high-def video and radio communications with proven reliability

STILL THE PROVEN ROVER 6

- Identical, proven form factor
- Multi-band Rx and Tx
- Two simultaneous reception channels for spatial and frequency diversity
- Secure digital communications
- Convenient options and accessories

POWERFUL NEW ROVER 6S CAPABILITIES

- HD video with (future) simultaneous encode/decode
- Crypto Core Modernization
- Full NSA Certification
- S-Band Expansion: Added 2025 – 2110 MHz
- UHF band Expansion: Increased to 225 – 512 MHz
- Improved DDL performance
- Advanced Waveform Search
- Network Security Protocol (NSP)
- Cold temperature operation, down to -40° C

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SPECIFICATIONS

FEATURE	ROVER 6	ROVER 6S	ROVER 6Sc	ROVER 6Si
Exportability				
Intended User Nations	US/FV-EY		NATO/Coalition	
Frequency Bands				
UHF	400 MHz to 470 MHz, 1 kHz steps	**225 to 512 MHz**[1], 1 kHz steps		
L-Band	1625 MHz to 1850 MHz, 0.5 MHz steps	1625 MHz to 1850 MHz, 0.25 MHz steps		
S-Band	2200 to 2500 MHz, 0.5 MHz steps	**2025 MHz to 2110 MHz**[1] and 2200 MHz to 2500 MHz, 0.25 MHz steps		
C-Band	4400 to 4940 MHz, 1.0 MHz steps 5250 to 5850 MHz, 1.0 MHz steps			
Ku-Band	14.40 to 14.83 GHz, 1.0 MHz steps 15.15 to 15.35 GHz, 1.0 MHz steps			
General Capabilities				
Size	6.75" x 4.30" x 13.43" (17.2 cm x 10.9 cm x 34.1 cm) (without battery) 6.75" x 4.30" x 17.61" (17.2 cm x 10.9 cm x 44.7 cm) (with battery)			
Weight	< 10 lb. (<4 kg.) (without battery)			
Power	10 to 32 VDC, 51 watts max BA5590 or BA2590 battery Battery eliminator for AC or DC input			
Video Encode/Decode	Standard-Definition Video: 480i29.97 (NSTC), 576i25 (PAL) H.261 (decode only) H.264 MPEG-2 MPEG-4 part 2 MJPEG	**High-Definition Video: 1080p30, 1080p25, 720p60, 720p50**[1] Standard-Definition Video: 480i29.97 (NTSC), 576i25 (PAL) **H.265 HD (available via future software update)**[1] H.261 (decode only) H.264 MPEG-2 MPEG-4 part 2 MJPEG		
Encryption	Legacy Type 1 256-bit AES	**KIV 700A Cryptographic Core Modernization**[1] 256-bit AES	**CCM 700A Cryptographic Core Modernization**[1] 256-bit AES	256-bit AES
Waveforms Supported	CDL: 200 kbps to 45 Mbps BE-CDL: 200 kbps to 45 Mbps rev B Modes 1 to 15, 101 to 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	CDL: 200 kbps to 45 Mbps BE-CDL: 200 kbps to 45 Mbps Modes 1 to 15, 101 to 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)**[1]		
Networking	IPv4/IPv6			
External / User Interfaces				
Video	RS-170 Analog Video Input/Output (NTSC)	**HD-SDI (SMPTE 292)**[1] RS-170 Analog Video Input/Output (NTSC/PAL)		
RS-232	RS-232 GPS input DAGR and NMEA types supported			
Ethernet	10/100 Base-T, Layer 3 Routing			
Interface Layout				
J1	Power (rear) 6 pin battery connector			
J2	Video In, Triax (50 Ohm)	Video In, **BNC (75 Ohm)**[1]		
J3	Video Out, Triax (50 Ohm)	Video Out, **BNC (75 Ohm)**[1]		
J4	Crypto Fill, M55116/10-0, 6 pin			Not used
J5	Mission Data Interface, D38999 shell size 15, 37 No. 22D sockets			
J6	Receiver 2, TNC			
J7	Receiver 1, TNC			
J8	Transmitter, N			
J9	RF Device Interface, D38999, shell size 13, 22 No. 22D sockets			
Environmental				
Altitude	30,000 feet (9,100 m) (operating)			
Temperature	-20 °C to +60 °C (operating, ambient), -20 °C to +70 °C (operating, cold plate or forced air) -40 °C to +85 °C (non-operating)	**-40 °C**[1] to +60 °C (operating, ambient) **-40 °C**[1] to +70 °C (operating, cold plate or forced air) **-40 °C**[1] to +85 °C (non-operating)		
Immersion	1 meter of water for up to 30 minutes			
Shock	3-foot drop (without battery) 20 G, 11 msec (terminal sawtooth peak) (operating)			

1. ROVER 6S family enhancements

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