

# MUMTi – MANNED-UNMANNED TEAMING (INTERNATIONAL) AIRBORNE DATA LINK SYSTEM

Providing a Complete, Real-Time and Integrated Picture in the Battlefield

The L3Harris MUMTi airborne data link system provides unparalleled interoperability, rapid connectivity and a high-speed communications backbone that enhances operations involving manned aircraft, UAVs and soldiers on the ground. MUMTi dramatically improves overall situational awareness and transforms sensor-to-shooter networks, enabling expanded levels of air-to-ground and air-to-air collaboration.

## PRODUCT DESCRIPTION

MUMTi is a collection of state-of-the-art products and a combat-proven architecture integrated on a sophisticated aircraft that provides “game-changing” capabilities to pilots in the air and soldiers on the ground. The pilot has the option to display and/or transmit video and metadata from an unmanned aerial vehicle (UAV), another manned aircraft, its own sensor or imagery that has been recorded and stored on an onboard digital video recorder (DVR). MUMTi enables highly effective teaming operations between manned and unmanned aircraft and provides full-motion video (FMV) to the tactical edge, improving operations involving aircraft and soldiers on the ground. MUMTi also provides improved situational awareness to the aircraft cockpit or cabin and streaming FMV to command and control centers, enabling better tactical decisions based on real-time video intelligence.



UAV Receive (UR) Kit



Air-Air-Ground (AAG) Kit



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Powerful and Flexible  
ISR Communications  
with Proven Reliability

## KEY FEATURES

- > Core capability: ROVER® 6i transceiver
- > Receives and distributes full-motion video (FMV)
- > Multi-band reception and Ku transmission
- > Fully integrated with cockpit displays and targeting systems
- > IP-enabled for network-centric operations
- > Modular design
- > Secure digital communications with AES
- > Software-upgradeable in the field
- > Extensive built-in test (BIT) avoids requirement for operational-level support equipment
- > Based on combat-proven capability flying today on U.S. Army Apaches



## SPECIFICATIONS

### Physical Characteristics<sup>1</sup>

AAG KIT	WIDTH (CM)	HEIGHT (CM)	DEPTH (CM)	WEIGHT (KG)	MAX POWER (W)
ROVER 6i	15.9	9.6	39.8	5.3	49.6
RFE	26.6	13.1	43.0	9.8	350
Ku Tx/Rx Antenna	12.7	27.2	14.0	1.6	N/A
MUMTi DS Processor	11.8	6.8	19.8	1.5	34
Ethernet Switch	12.6	9.4	15.2	0.9	8
Video Splitter	6.3	5.2	11.1	0.7	12.8
<b>Total</b>				<b>19.8 kg</b>	<b>454 W</b>

UR KIT	WIDTH (CM)	HEIGHT (CM)	DEPTH (CM)	WEIGHT (KG)	MAX POWER (W)
ROVER 6i	15.9	9.6	39.8	5.3	49.6
Quad-band Rx Antenna	15.2	14.7	15.2	1.5	1.8
<b>Total</b>				<b>6.8 kg</b>	<b>51 W</b>

## PERFORMANCE CHARACTERISTICS

### Waveforms and Data Rates

- > CDL: 200 Kbps, 10 Mbps, 45 Mbps
- > Tactical: 1.6, 3.2 and 6.4 Mbps
- > DDL: 1.5 and 4.5 Mbps (Rx only)
- > VNW<sup>2</sup> (FSK): 50 Kbps to 5 Mbps
- > Legacy ROVER 455K: 455 Kbps (Rx only)
- > ROVER 466ER: 466 Kbps
- > BE-CDL rev B: 512 kbps to 45 Mbps; Modes 1-15, 101-105

### RF

- > Ku-Band: 15.15 to 15.35 GHz, 14.40 to 14.83 GHz
- > C-Band: 5.25 to 5.85 GHz, 4.40 to 4.95 GHz
- > S-Band: 2.20 to 2.50 GHz
- > L-Band: 1.625 to 1.85 GHz

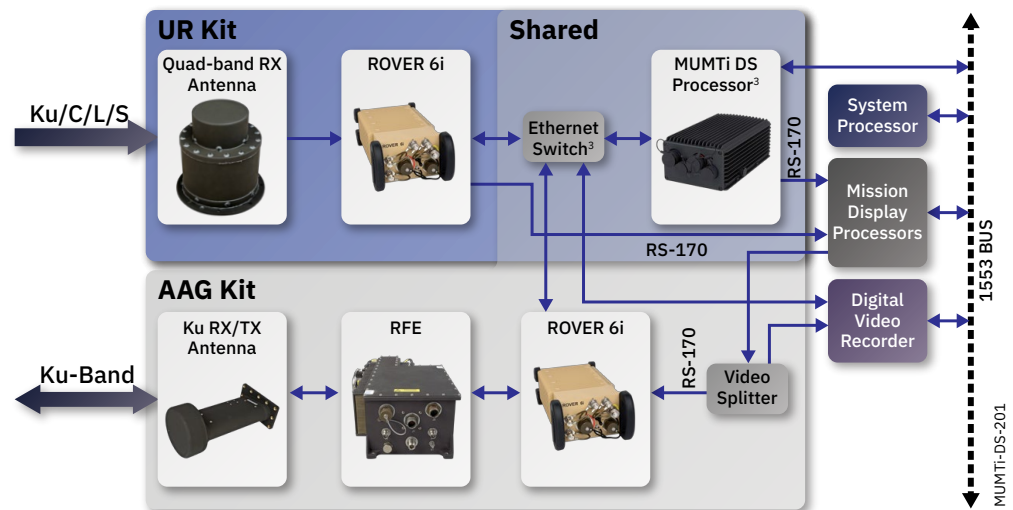
## MUMTI SYSTEM ARCHITECTURE

### UAV Receive (UR) Kit

- > ROVER 6i multi-band transceiver
- > Quad-band Rx antenna

### Air-Air-Ground (AAG) Kit

- > ROVER 6i transceiver
- > Switchable RFE
- > Ku-Band bicone antenna
- > Data link subsystem (DS) processor
- > Ethernet switch
- > Video splitter



<sup>1</sup> Configuration-dependent

<sup>2</sup> TBD

<sup>3</sup> Per configuration illustrated

## MUMTI – Manned-Unmanned Teaming (International) Airborne Data Link System

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