



Communication Systems-West

MUMT*i*

Ready for International Development

The MUMT*i* 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. MUMT*i* dramatically improves overall situational awareness and transforms sensor-to-shooter networks enabling expanded levels of air-to-ground and air-to-air collaboration.



*A picture is worth a thousand words.
How valuable is targeting video?*



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

What it is:

An above rotary UAV Receive (UR) Kit coupled with the Air-Air Ground (AAG) Kit provides unparalleled capability to Apache Attack Helicopters. The Rover 6i transceiver, based upon the fielded and combat proven Rover 6, is interoperable with multiple fielded UAS platforms. In addition, the system can stream real-time situational awareness to the dismounted soldier for enhanced air to ground coordination utilizing the Tactical ROVER-P.

Operational improvements:

The MUMTi airborne data link system provides exceptional interoperability, rapid connectivity, and a high-speed communications backbone that enhances operations involving manned aircrafts, UAVs, and soldiers on the ground. This system allows helicopter pilots to monitor feeds from drones and also control* the sensors and weapon systems from safe distances. The AES secured architecture is based on combat proven capabilities flying today on US Army Apaches.

“MUMT is a game changer for the US Army”

*Col. John Lynch,
TRADOC Capability
Manager Attack/Recon*



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.

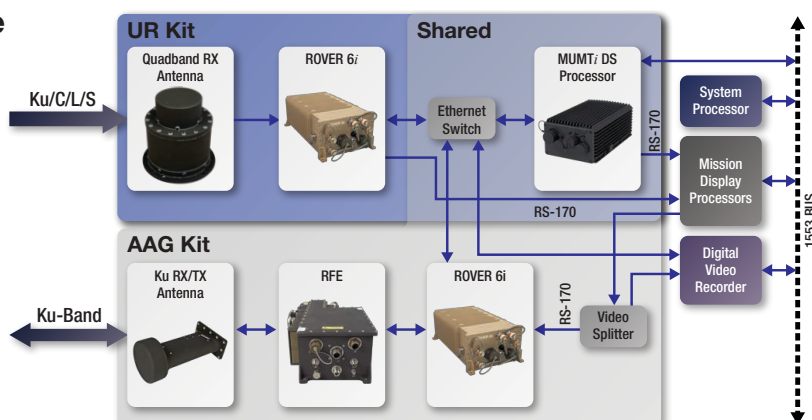
MUMTi System Architecture

UAV Receive (UR) Kit

- ROVER 6i multiband transceiver
- Quad-band Rx antenna

Air-Air-Ground (AAG) Kit

- ROVER 6i transceiver
- Switchable RFE
- Ku-band bicone antenna
- Datalink Subsystem (DS) processor
- Ethernet switch
- Video Splitter



Specifications

Physical Characteristics

AAG KIT	Width	Height	Depth	Weight (lb.)	Max Power (W)
ROVER 6i	6.25	3.8	15.67	11.6	49.6
RFE	10.51	5.16	16.98	21.6	350
Ku Tx/Rx Antenna	5.03	10.7	5.5	3.6	N/A
MUMTi DS Processor	4.64	2.67	7.78	3.3	34
Ethernet Switch	4.95	3.7	6	2.1	8
Video Splitter	2.5	2.04	4.38	1.5	12.8
Total				43.7 lb.	454 W

UR KIT	Width	Height	Depth	Weight (lb.)	Power (W)
ROVER 6i	6.25	3.8	15.67	11.6	49.6
Quadband Rx Antenna	6	5.8	6	3.3	1.8
Total				14.9 lb.	51 W

Performance Characteristics

Waveforms and Data Rates

- XCDL: 400 kbps, 3.5 Mbps, 10 Mbps, 45 Mbps
- Tactical: 1.6, 3.2, and 6.4 Mbps
- DDL: 1.5 and 4.5 Mbps (Rx only)
- VNW (FSK): 50 kbps to 5 Mbps
- Legacy ROVER 455K: 455 kbps (Rx only)
- ROVER 466ER: 466 kbps

RF

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



Tactical ROVER-P

Tactical ROVER-P is a pocket sized full motion video and data receiver. Designed for the dismounted soldier, the receiver can withstand harsh conditions while maintaining reliable communications with manned and unmanned aircraft.



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Data contained within this document are summary in nature and subject to change at any time at L-3 Communications' discretion.
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Photo courtesy of U.S. Army Photographer Chief Warrant Officer Daniel McClinton