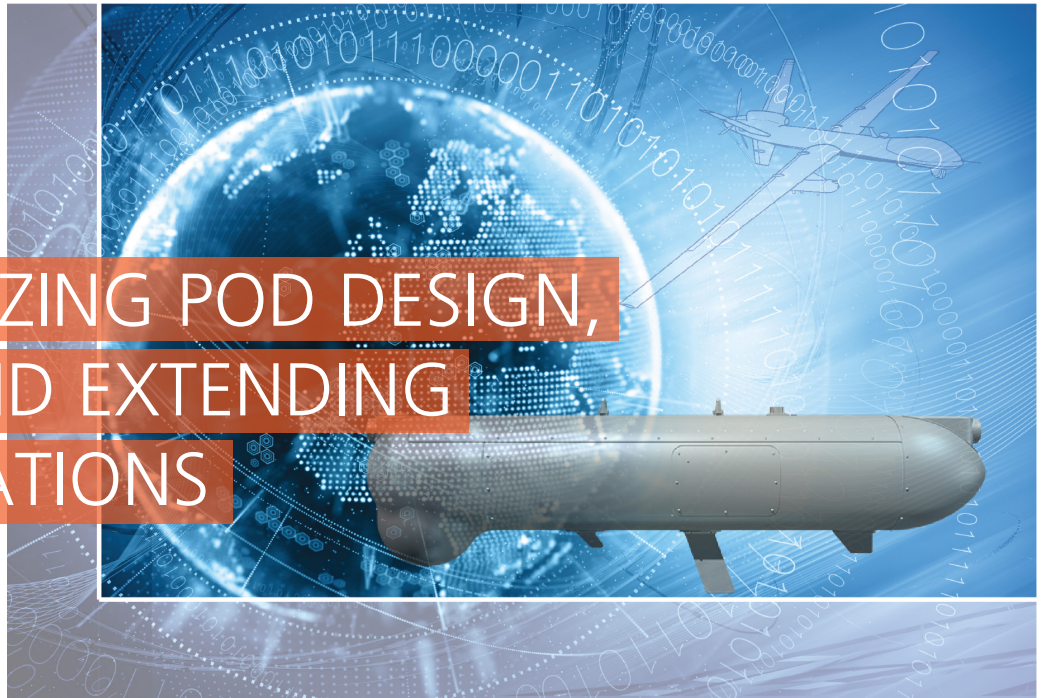


REAP®

REVOLUTIONIZING POD DESIGN, BRIDGING AND EXTENDING COMMUNICATIONS



REAP PROVIDES COMMUNICATIONS RELAY AND TACTICAL DATA LINK GATEWAY SERVICES OVER LARGE, WIDELY DISPERSED AND OFTEN AUSTERE ENVIRONMENTS IN SUPPORT OF OUR JOINT WARFIGHTERS.

KEY FEATURES

- Supports information superiority across the battlefield: air-to-air and air-to-ground
- Non-invasive to host aircraft
- Radio and TDL BLOS extension
- Bridging/translating between disparate waveforms and frequencies
- Video management and dissemination
- Link 16, SADL, EPLRS, CoT, JTRS, TTNT, ANW2, AIS, UHF/VHF, HAVEQUICK, SINGARS, MANET, Project-25, Multiband CDL, VoIP/ RoIP
- Self-reporting of host aircraft into TDLs and COP
- Computing resource in the sky: publish, subscribe, query
- Flexible payload bus; can be used to host various C4ISR payloads

The REAP® (Rosetta Echo Advanced Payloads) from Ultra Electronics, Advanced Tactical Systems (Ultra) provides a robust, non-invasive payload for tactical communications exchange in an airborne-qualified pod for external mounting to manned or unmanned aircraft.

From Ground Operators at the Tactical Edge (GOTE) to convoys, command centers and other participating aircraft, multiple users will benefit as the REAP—with its Battlefield Integrated Gateway for Tactical Exchange (BIGTEX)™ software—relays, bridges, translates, distributes and manages current and legacy data, voice and video.

From the lower altitudes of the mid-tier aerial network, to the upper-tier at 65,000 to 70,000 ft. Mean Sea Level (MSL), the REAP provides communications relay and tactical data link gateway services over large, widely

dispersed and often austere environments in support of our joint warfighters.

Designed to be minimally invasive to the host aircraft, the REAP provides the ability for an aircraft to easily support a rapid reaction, multi-mission role without experiencing the huge time and cost drivers associated with a non-recurring engineering effort to develop and integrate new systems into the aircraft.

The REAP has a common MIL-STD mounting interface, houses its own antennas and requires nothing more than the attachment hard point and power from the host aircraft, allowing the flexibility to snap it on, pull it off and swap it out as required to support the mission.

The REAP uses high Technology Readiness Level Government and Commercial Off-The-Shelf (GOTS/ COTS) components and an open architecture to provide a robust

communications and situational awareness capability.

Ultra has integrated a number of components that facilitate Joint Tactical Radio System (JTRS), Adaptive Networking Wideband Waveform (ANW2), Mobile Ad Hoc Network (MANET), Tactical Targeting Network Technology (TTNT) and Common Data Link (CDL) waveforms; Link 16, Cursor on Target (COT) and Situational Awareness Data Link (SADL) Tactical Data Links (TDL); Naval Automatic Identification System (AIS) tracking; Automatic Dependent Surveillance - Broadcast (ADS-B); and tactical exchange of voice data and imagery, such as TDL tracks, situational awareness, chat, 9-line, free text, streaming and throttled video, still images, Voice over Internet Protocol (VoIP), virtual teleconference, sensor points of interest and file publish and subscribe services.

Advanced Tactical Systems

Ultra
ELECTRONICS

REAP INTEROPERABILITY AT THE TACTICAL EDGE: REAP ENABLES WARFIGHTER INFORMATION SUPERIORITY AND ENHANCES COMMUNICATION BETWEEN EDGE USERS AND THEATER COMMANDERS.

REAP'S TACCORE™ HARDWARE AND SOFTWARE

REAP's TacCore system provides the supporting infrastructure to make any component a "system" providing a host computer, router, aircraft interface, power distribution and management, High Assurance Internet Protocol Encryptor (HAiPE), maintenance panel for ground checks and crypto fill access and a mounting chassis.

Antennas are mounted on, inside of or wrapped around the pod structure to keep the system as minimally invasive to the host platform as possible.

SOFTWARE SERVICES

- Web browser-based interface
- User authentication and privileges
- Power switching and monitoring
- Data archive
- Chat server
- Pub/sub data bus
- Infrastructure for custom applications

BASIC SPECIFICATIONS

(vary based on configuration)

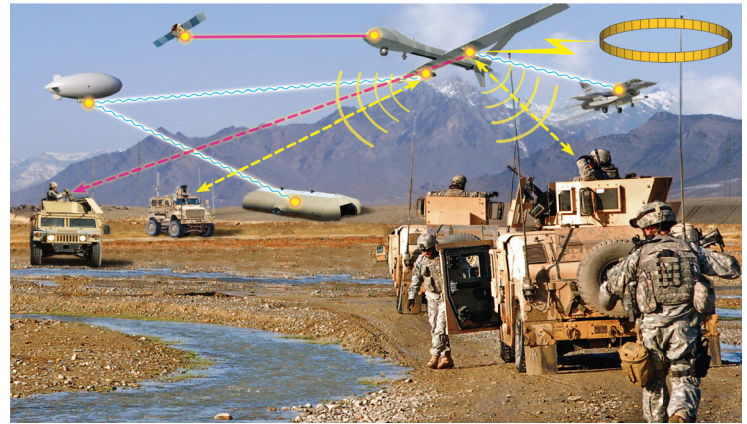
Weight: ~120 lbs

Power: ~500 W

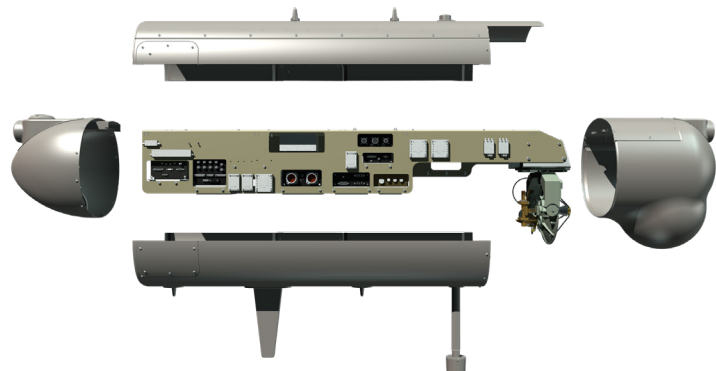
Temperature: -40° C to +65° C

Altitude: Up to 70,000 ft. MSL

REAP can also serve as a ready, pre-qualified testing platform for new airborne Command, Control, Communications, Computers, Intelligence, Surveillance and Reconnaissance (C4ISR) electronic components requiring testing under operational conditions. Whether the requirement is for communications support from air-to-ground, air-to-air or both; or an ISR payload with communications distribution; or an experimental payload ready for flight, REAP is the solution.



TacCore hardware suite	Description
RTR - Ethernet backbone router	Cisco IOS, support for 10 Ethernet devices
ASC - Air Segment Computer	Core i7, 1 TB storage
AID - Aircraft Interface Device	1553, synch, asynch, Ethernet
	USB, ARINC 429
PDU - Power Distribution Unit	Regulation, conversion, switching, monitoring
MPL - Maintenance Panel	Physical payload access, central crypto fill, mission load interface



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