

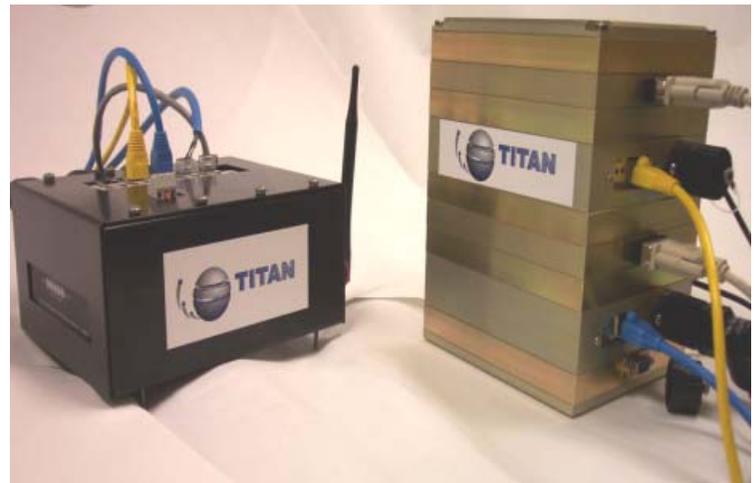
# ACR(E)-5 Dual Receiver System



Date Revised: 30 JAN 04

## VENDOR DESCRIPTION

Titan Corporation announces the availability of a low-cost, lightweight communications receiver payload. Based on Commercial-Off-The-Shelf (COTS) technology, this system uses modular units easily tailored to meet specific customer needs. Cost-effective for small UAVs and suitable for all sizes of manned aircraft, these units can meet any customer's remote communications requirements. The receiver module is available in single- or multiple-stack configurations. The payload is controllable via wireless Ethernet, providing maximum operational flexibility, with the capability of world-wide web control and dissemination of collected information. The ACR(E)-5 system also provides a unique direction-finding capability for cueing of other sensor systems.



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Business Category: Large Business

CDR

Hardware (Specification values based on developmental data)		
Power: .1 watt (can go to 50 watts)	Cooling: Fan-forced air (airborne side only)	Bandwidth Required: 1.23Mb/s (over the air)
Weight: 15.7 lbs	Operating Altitude: 0 ft to 10,000 ft AGL	TCDL Compatibility: Standard Ethernet-based
Rec/Trans Weight: < 4 lbs	Operating Speed: Limited only by selected external antenna configuration	Complete XX% of Missions Started without Failure: Not fully demonstrated (100% to date)
Antenna Weight: .125 lbs. (x 3)	Operating Temp.: -20°C to 60°C	MTBSA: Not fully demonstrated
Processor Weight: Approx .3 lbs.	Storage Temp.: -30°C to 70°C	MTTR: Not fully demonstrated
Internal Volume: < .309 ft <sup>3</sup>	Interface: Electrical & mechanical only	Maintainability: R&R to LRM level

Performance	
BLOS for TOC-to-TOC radios of the Tactical Internet: IEEE 802.11b	# of TOC-to-TOC nets using TOC-to-TOC radios: N/A
BLOS for JTRS-compliant waveforms: IEEE 802.11b	# of JTRS compliant waveforms: N/A
Supports any combination of VHF/UHF voice or data networks: IEEE 802.11b	Relay for HS LOS trunk radios at X.X to X.X Mbs: N/A
Capable of cross-banding between radios/waveforms: No	# of simultaneous nets: N/A
Capable of paging services: No	# of back single-channel UHF Sat Comm relays: N/A
Capable of cross-linking between multiple UAVs: Yes	Capable of Link 16 nets at one time: N/A
Capable of cross-banding between CRP-D components: No	Capable of CDMA wireless telephone services: No
BLOS relay for EPLRS of the Tactical Internet: Within performance parameters of the system	
Remote control of the payload via an on-board comms manager controller: Yes	
Capable of integration into the WIN-T Network Management System: Yes	
Capable of integration into the Joint Network Management System (JNMS): Yes	
Capable of completing 100% of the missions it starts without experiencing a mission abort: To date, no lost missions due to failure	

# ACR(E)-5, Dual Receiver System



## Maturity of the Equipment/System – SDD

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Titan's ACR(E)-5 has completed its initial system development and lab testing phase and entered flight test on 31 December 2002. Future flight testing will characterize the spread-spectrum Ethernet control system using transmitted power performance enhancements beyond FCC, Part 15.247 restrictions to the Titan-specified distance of beyond 20 miles. Initial flight test data demonstrate the programmable Ethernet system functioning reliably to a range of up to 7 nm slant range (with intermittent operation to 9 nm slant range) using FCC Part 15.427 limited wireless Ethernet power settings and gain antennas on the airborne unit and the ground station. Initial demonstrations of the DF cueing function have proven it to be reliable and accurate within system design operating parameters. Each receiver frequency range is 100kHz to 1.3GHz, with Modes: AM, FM, WFM, SSB (USB, LSB), CW.

## ACTIVE CONTRACTS WITH THE U.S. GOVERNMENT FOR THIS EQUIPMENT/SYSTEM

- None

## PREVIOUS CONTRACTS WITH THE U.S. GOVERNMENT FOR THIS EQUIPMENT/SYSTEM

- None

## CURRENT EQUIPMENT/SYSTEM PROGRAMS

- None

## ANTICIPATED EQUIPMENT/SYSTEM PROGRAMS

- USN – PMA-263
- USMC – Warfighting Lab
- SOCOM

## CURRENT APPLICATIONS OF EQUIPMENT/SYSTEM

- None

## ANTICIPATED APPLICATION OF EQUIPMENT/SYSTEM

- Brigade intelligence operations
- Special operations
- Drug interdiction operations
- Law enforcement

## DATE ENTERED FULL RATE PRODUCTION

- Full Rate Production has not yet begun.

## COST FOR (Production target price)

- One unit – \$76,122 per unit
- Fifty units – \$73,838 per unit
- One hundred units – \$71,555 per unit
- Five hundred units – \$69,275 per unit
- One thousand units – \$68,987 per unit

## LEAD TIME REQUIRED (Production target schedule)

- One unit – 120 days
- Fifty units – 5 months
- One hundred units – 10 months
- Five hundred units – 15 months
- One thousand units – 20 months

### Titan Corporation

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