QinetiQ North America

PADS®

Antenna Control Unit (Block 4.0) LRU

The Antenna Control Unit (ACU) is the main Line Replaceable Unit (LRU) for the PADS® Precision AirDrop System GPS ReTransmit Subsystem (GPS-RTS). It is connected to a raw GPS constellation data source such as an aircraft antenna electronics unit or external GPS antenna unit. The ACU evaluates raw GPS signal levels and sets the output power necessary to provide the aircraft's cargo compartment with reliable GPS signals.

The ACU also provides precise phasing of the GPS signal between the transmitting antennas to overcome multi-path signals and nulls often found within the metallic structure of an airframe. The use of input signal evaluation along with phasing ensures that the PADS ACU provides complete GPS coverage for large body military aircraft. This precise GPS signal furnishes the essential data necessary for the PADS Dropsonde, guided cargo systems, and military parachute personnel to achieve precision air drop accuracy.

Features

- Phased gain output
- Controlled gain output
- Simple to operate and control
- ARINC one-half ATR Compliant Enclosure
- GPS data port for user defined purpose

Engineering

PADS LRUs are engineered to meet or exceed the stringent requirements for operating onboard DoD aircraft. They are certified by the U.S. Air Force for operations on C-130E/H, C-130J/J-30, C-17, and a variety of other military aircraft. The system was independently tested at an accredited MIL-STD test facility and during a USAF flight test program and met or exceeded the following requirements:

- MIL-STD-810F
- MIL-HDBK-704-8
- MIL-STD-704E
- MIL-STD-1472
- MIL-STD-461E

Applications

Retransmission of a precise L1/L2 GPS signal to all cargo load stations on C-130E/H, C-130J/J-30 and C-17 aircraft or a variety of other DoD, foreign and non-military aircraft.

Options

- No identifiable markings for special applications

NSN

QNA PN	NSN	Description
11320-706	5826015915133	ANTENNA CONTROL UNIT (BLOCK 4.0)

Specifications

- Operating Frequency: L1: 1575 MHz, L2: 1227 MHz
- Output Gain: Up to 45 dBm
- Outputs: 3 phased L1/L2 GPS signals
- 1 raw L1/L2 GPS signal
- Length: 12.63 in / 32.07 cm
- Width: 4.94 in / 12.54 cm
- Depth: 7.38 in / 18.73 cm
- Weight: 10 lbs / 4.54 kg
- Input Power: 24 to 32 VDC
- Power Consumption: 0.42 Amps during operation
- Visual Signaling: NVIS Compatible LEDs

FOR MORE INFORMATION
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