

PADS®

GPS ReTransmit Subsystem (GPS-RTS)

The Precision AirDrop System (PADS®) GPS ReTransmit Subsystem (GPS-RTS) contains the Antenna Control Unit (ACU), transmitting antennas, GPS Test Tool, and all the necessary components required to rebroadcast raw GPS data throughout the aircraft's cargo compartment. All components are contained in a watertight transportation and storage case.

The ACU is connected to a raw GPS signal source such as an aircraft antenna electronics unit or external GPS antenna unit. The ACU evaluates the 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. This precise GPS signal provides the essential data necessary for the PADS Dropsonde, guided cargo systems, and military parachute personnel to achieve precision air drop accuracy. The GPS-RTS is part of the AN/ARQ-60 Joint Precision Airdrop System."



Features

- Phased gain output
- Controlled gain output
- Simple to operate and control
- ARINC one-half ATR compliant enclosure
- Raw GPS data port for user defined purpose
- Easy to install: Roll on/roll off typically in less than 1 hr; removal less than 30 min.

Engineering

PADS line replacement units 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-STD-1472
- MIL-STD-704E
- SAE-AS50881
- MIL-STD-461E
- MIL-HDBK-454
- MIL-HDBK-704-8

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

- Roll-on/roll-off installation packages
- Semi-permanent installation packages
- Permanent installation packages
- Custom cable packages



NSN

QNA PN

11260-701

11260-703

NSN

5998015926823

5998015937443

Description

C-130 GPS-RTS (BLOCK 4.0)

C-17 GPS-RTS (BLOCK 4.0)

Specifications

- Operating Frequency: L1: 1575 MHz, L2: 1227 MHz
- Output Gain: Up to 45 dBm (ACU Outputs)
- Outputs:
 - Three phased L1/L2 GPS signals
 - One raw L1/L2 GPS signal
- Length: 22.0 in / 55.88 cm
- Width: 19.0 in / 48.26 cm
- Depth: 10.5 in / 26.67 cm
- Weight: 35 lbs / 15.88 kg
- Input Power: 24 to 32 VDC
- Power Consumption: 0.42 Amps during operation
- Visual Signaling: NVIS Compatible LEDs

FOR MORE INFORMATION

QinetiQ North America
350 Second Ave
Waltham, MA 02451
T: 781-684-4000
MetSense@QinetiQ-NA.com

Cleared for public release, Office of Security Review, Ref: 11-S-1290, dated March 9, 2011

© 2017 QinetiQ North America
Document: 17-2-PADS-GPS-RTS