

Quick Response Instrumentation Package



Applications

- Flight test instrumentation
- Quick installation of instrumentation to production aircraft

Features

- Quick Response Instrumentation Pallet LRU (Line Replaceable Unit)
- Contains mechanically modified version of the AIM-2004 Airborne Instrumentation Multiplexer
- Contains Miniature CAIS Data Acquisition Unit Master Stack
- Contains XPDR-2150 Radar Transponder and RF power divider
- Incorporates special wiring harness to provide all AIM-2004 and MCDAU-2035 interfaces to connectors on front panel
- Single +270V DC power supply input circular connector on front panel
- Interfaces to and powers Remote ADSR 4003F IRIG-106 Chapter 10 network recorder for data storage
- Fully programmable with TTCWare

Description

The QRIP-2035 LRU contains the instrumentation and recorder control pieces of the QRIP system. The instrumentation within the QRIP-2035 provides a subset of instrumentation capabilities of the typical JSF DART pod and is based on existing data acquisition equipment developed for the JSF F-35 SDD flight test program. The QRIP-2035 integrates individual TTC data acquisition, multiplexer and radar transponder systems into a single enclosed package. On current non-instrumented F-35 aircraft, the QRIP-2035 is intended to directly install into a space traditionally occupied by the P5 Combat Training Sub-system LRU. Thus the QRIP-2035 LRU is designed to install directly into the standard full size Air Transport Rack (ATR) P5 Shock-mounted Tray. Three existing aircraft cables connected to the P5 unit are reconnected to the installed QRIP-2035 system. Other P5 unit cables not utilized on the QRIP-2035 are stored on stowage connectors mounted nearby as part of the Group A Mod Kit installation. Other Group A Mod Kit cables are installed in the aircraft and connected to the appropriate connectors on the QRIP-2035 LRU.

The TTC QRIP-2035 instrumentation pallet consists of two separate internal modular data acquisition systems. The first is a mechanically modified version of TTC's AIM-2004 Airborne Instrumentation Multiplexer product with the following I/O cards: QFCH-304L-2 Quad Optical Fibre Channel card, QBIM-394Q-1 Quad IEEE-1394b Interface Adaptor card, QPCI-304-1 Four Channel PCM Interface card and QBIM-553-1 (optional) 8-port MIL-STD-1553 Bus Monitor Card. The second modular system (labeled as the MCDAU-2035) is a standard version TTC Miniature CAIS Data Acquisition Unit Master with the following standard I/O modules: MFDR-101A-1 Miniature Filter Driver Module, MBIT-110-1 Built In Test Module (used for recorder control), MGPS-101B-2 Miniature IRIG-B Time Code Module with Integral GPS Receiver and Real Time Clock and the MSCD-606D-3 Analog Signal Conditioning Module. These two modular data acquisition systems are internally connected together and are interfaced to the various QRIP-2035 front panel connectors to provide the system data I/O interfaces. All the data collected by these two systems is formatted by the AIM-2004 Airborne Instrumentation Multiplexer into Chapter 10 recording files which are then sent to a remotely located TTC ADSR-4003F IRIG-106 Chapter 10 network recorder for storage. A TTC XPDR-2150-1 50 Watt Radar Transponder (QRIP-2035-1) or a TTC XPDR-240-1 400 Watt Radar Transponder (QRIP-2035-2) is also integrated within the QRIP-2035 unit along with an RF power divider.

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QRIP-2035-1/2 Datasheet

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CAIS
Compatible



Management
System
AS9100C
ISO 9001:2008

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