IEEE 1588 Time and Ethernet Overhead Module

Applications

- Flight test instrumentation
- Avionics data acquisition
- Air vehicle test, certification or development
- Ethernet-based, network distributed systems

Features

- IEEE 1588 time and Ethernet overhead module
- Includes a 10/100BASE-T Ethernet port for:
  - Data acquisition setup
  - Configuration and transport
  - SNMP status and control
- FPGA capabilities:
  - Performs 1588 time synchronization and implements the analog overhead
  - Supports the logic necessary to interface to acquisition modules connected to the backplane bus
  - Converts PCM analog acquisition data into IP packets that are sent to the NPD Ethernet network for recording and distribution
- Samples time into its data format from IEEE 1588 and can be configured to either transmit or receive IRIG 106 time
- Converts IEEE 1588 into IRIG 106 time using Binary-Coded Decimal (BCD) or binary formatting when module is configured to transmit IRIG time
- Samples IRIG time into its data format, where the time source is from a time module over the time bus when module is configured to receive IRIG time
- Fully supported by TTCWare configuration and setup software

Description

The MACQ-500-2 is a high-speed overhead module used in TTC's MnACQ-2000-1 networked data acquisition and encoding unit. The module enables the MnACQ-2000-1 to operate as a wideband, stand-alone data acquisition unit with maximum bit rates up to 20 Mbps.

The MACQ-500-2 is an IEEE 1588 time and Ethernet interface and remote bus (R-Bus) overhead module that includes a Field Programmable Gate Array (FPGA) that performs 1588 time synchronization and implements the analog overhead. Its 10/100BASE-T Ethernet port is used for data acquisition setup, configuration and transport and supports SNMP for status and control. The MACQ-500-2 can be configured to transmit the IRIG time bus to I/O modules. The module can also be configured to receive the IRIG time bus if the MnACQ-2000-1 is not receiving time data from the network when a time module is in the stack.

Management
System
AS9100C
ISO 9001:2008

DEKRA

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