DataHUB 1U
Recorder/Reproducer/Gateway

Highlights

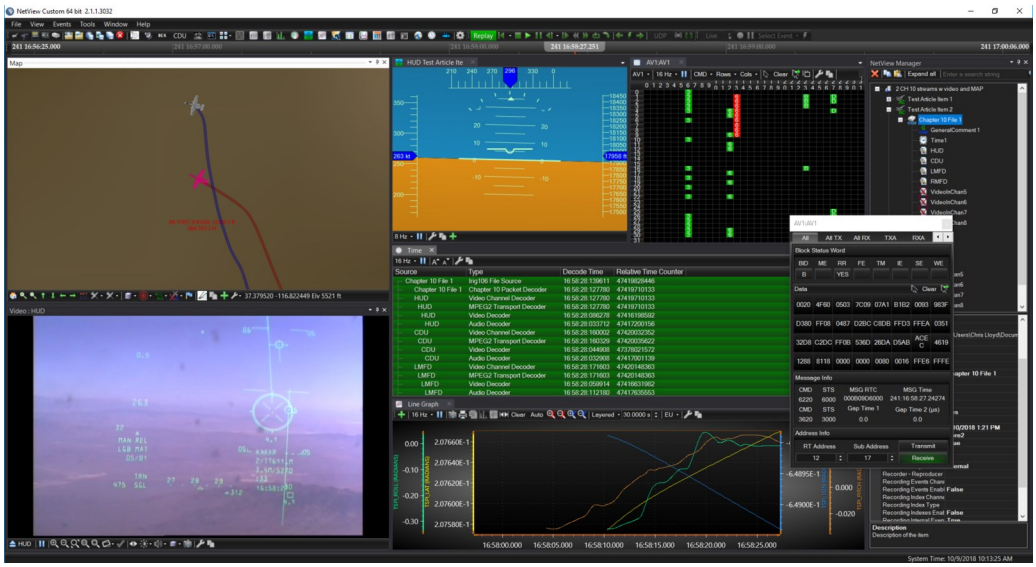
- 8 Bi-Directional TTL PCM Channels, 4 UART Channels, & 3 Ethernet Interfaces
- 100% Compliant IRIG 106 Chapter 10 Recorder/Reproducer/Publisher
- TMoIP Gateway w/ IRIG 106 Chapter 7 & IRIG 218 PCM Encoder/Decoder
- Embedded Serial Stream Extraction from PCM Channels

Overview

The 3rd generation DataHUB product line is a standards-based telemetry ground system with IRIG 106 Chapter 10 record, reproduce, & publish (broadcast/unicast/multicast) capability. The CPAS-6010 DataHUB is a 1U, 19" rackmount system that provides (8) Bi-Directional TTL PCM channels, (4) Rx/Tx UART channels, & (3) SFP Ethernet interfaces. High speed data recording/playback is provided using (2) NVMe Removable Data Drives. PCM Input/Output configurations are selectable via the CLI.

The hallmark of Telspan products is multi-disciplined capabilities; the DataHUB provides TMoIP Gateway functions with IRIG 106 Chapter 7 & IRIG 218 encoding/decoding. With IRIG 106 Chapter 10 based publish any/all incoming channels w/time can be transmitted over Ethernet networks. Replay/reproduce of IRIG 106 Chapter 10 files is provided from recorded or uploaded files on the SSD's.

The internal GPS receiver, PTP clock or external IRIG-A/B/G can seed the IRIG time generator for record/publish of data. The core system is FPGA/logic driven, not a Windows based host computing system. Setup of the DataHUB is accomplished via browser-based web GUI, CLI or Chapter 10 discretes. The DataHUB Discovery & Control Tool allows any/all DataHUB's on a network to be found, controlled & monitored.



Coupling the DataHUB w/ NetView Data Fusion & Display software provides a complete telemetry data processing system. NetView supports all CH10 data types, subscribe/publish & recording locally or across a network. NetView provides a SDK version for custom development, decoders, display, & database import/export.

More details @ www.telspandata.com/tm-ground-systems/

sales@telspandata.com | telspandata.com

CPAS-6010 Specifications

PCM Inputs/Outputs

- 8 Bi-Directional PCM (TTL) Channels
  - Selectable from 4IN/4OUT or 8IN
- 100Kbps to 50Mbps Per Channel
- Standard LO 50 or 75, HI 1KΩ Terminations
  - Custom Terminations Available
- NRZ-L/M/S, RNRZ-L, BIO-L/M/S
- Randomize/De-Randomize
- Invert Data/Clock
- Internal Loopback Per Channel
- PCM Simulator Per Channel
  - Fixed, Count, PN15
- PN15 Encode/Decode
  - Bit Error Injection, Error Count & BER
- Serial Stream Extraction to UART Outputs

Serial Inputs/Outputs (J1 Connector)

- 4 UART Rx/Tx Channels up to 3Mbps Each

Ethernet Data Interfaces

- 3 10/100/1000 Ethernet SFP's
- Broadcast/Unicast/Multicast
- Fixed or Auto Negotiated Speeds
- Selectable MTU Up To 9600
- Publish Pause/Resume

Ethernet CCM Interface

- 10/100/1000BASE-T RJ45
- Isolated from User Data, CCM Only

Discretes IAW IRIG 106 Chapter 10

- Record, Event, Reset Inputs
- Record & Fault Status Outputs
- Time Valid & User Outputs

Time Inputs

- IRIG-A/B/G Per Input (AM or DC)
- GPS Receiver
- IEEE-1588v2 PTP & NTP

Time Outputs

- IRIG-A/B/G Time Code Generator AM & DC
- IRIG 1PPS (from GPS)

GPS Receiver

- 30nS Accuracy, RMS 15 Nanoseconds Compensation
- Cold Start 26 Seconds/Hot Start 1 Second to Time Fix
- 0.0V, 3.3V, 5.0V Antennas
- NMEA 0183 Information Available in Web GUI/CLI

Command, Control & Monitoring (CCM)

- Web Browser GUI
- Ethernet (TELNET CLI)
- RS-232 IRIG 106 Chapter 6/10 CLI
- IRIG 106 Chapter 10 Discretes

Chapter 10 Record/Reproduce/Publish

- ± 1µ Second Time Tagging/Alignment
- Throughput, Packed, Unpacked PCM
- 16 or 32 Bit PCM Alignments
- Fully Independent Record & Reproduce
- Record Multiple Channel Groups to Multiple Drives

Internal Storage

- 2 Removeable NVMe SSD's
- 1TB Each Standard, Other Sizes Available

Mechanical/Power

- 1U, 19" Rackmount, 17" Deep, 14.5lbs
- 90-265 VAC, 50/60Hz, IEC 320-C13 Socket

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