



## VT-RE-17A Recorder CH7 Gateway

The JDA Systems VT-RE-17A Recorder CH7 Gateway 2 channel is an airborne Chapter10/11 data combiner, recorder, analyzer, data server and intelligent IRIG106 Chapter 7 compatible data router. It offers support for IRIG 106 Chapter 4, Chapter 10, Chapter 11 and Chapter 7 in a particularly small form factor able to withstand harsh environments.

The rugged milled aluminum case contains everything needed to gather data from numerous network based data sources and combine those for recording and data distribution. It contains a GPS based NTP/PTP time server to keep the remote data sources time synced. Support is provided for numerous RTSP network video streams, also up to four PCM telemetry signals can be fed directly to the recorder. The Recorder can generate up to four simultaneous IRIG106 Chapter 4, 7 and 8 data streams to be used locally or remotely over the available RF telemetry link. This link covers all standard telemetry rf band frequencies. The recorder accepts uplink IRIG106 Chapter 7 data streams for command and control, even being able to change the transmitted data selection, rates and RF frequencies on the fly.

Network support for pilot and engineering displays is available as standard

For local usage and setup the Recorder is fitted with a service USB 3.0 port so it is possible to connect a mouse, keyboard and display directly to the unit, or of course to fully remote control the unit over the built in gigabit Ethernet interface.

Two removable built in solid state disks are fitted, one that contains the operating systems and another for the IRIG106 Chapter10/11 user data. Both can easily be removed for declassification of the unit.



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For more details contact:

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### Input Data

Network Data: Numerous Network Sources IRIG106 Chapter 10/11 Compatible  
Telemetry PCM: Quad Bit Sync, Quad Decom  
Network Video: Numerous RTSP Network Video Sources  
Uplink Control: IRIG106 Chapter 7 Compatible

### Output Data

Network Data: IRIG106 Chapter 10/11 Retransmission  
Telemetry PCM: IRIG106 Chapter 4/7/8 Generation  
Data Storage: 2/4TB Removable Memory Media (RMM) > 200MBytes/Sec  
Data Server: Network Based Support For Pilot and Engineering Displays

### Supported Data Types

Network Input: Complete Support For All Chapter10/11 Data Types  
Network Output: IRIG106 Chapter10/11, DataExchanger Server/Client System  
Timing: Integrated NTP/PTP GPS Based, IRIG A, B, G Time Code Reader

### Bit Sync Characteristics

Data Polarity: Normal or Inverted  
Input Bit Rate: 100 bps to 40 Mbps (Max)  
Input Code Types: NRZ-L/M/S, BIO-L/M/S, DM-M/S, RNRZ/RNRZR-9/11/15/17/23  
Output Code Type: NRZ-L/M/S, BIO-L/M/S, DM-M/S, RNRZ/RNRZR-9/11/15/17/23  
Loop Bandwidth: Digital Fully Automatic  
Acquisition Range: Digital Fully Automatic  
Tracking Range: Digital Fully Automatic  
Bit Error Probability: Within 1db to Theoretical  
Loop Bandwidth: Automatic Full Digital  
Tracking Range: Automatic Full Digital  
Clock Format: 0 Degree and 180 Degree

### PCM Data Characteristics

IRIG 106 Types: Chapter 4, Chapter 7, Chapter 8, Chapter 10/11  
Bit Rate: 100 bps to >32 Mbps  
Serial Input: RS422 (differential) & TTL(0-5V)  
Serial Output: RS422 (differential) & TTL(0-5V)  
Time Sources: GPS, NTP/PTP, IRIG A, B & G  
Time Resolution: Internal 100 nSec  
Frame & Subframe: Optionally extended to Word/Frame >8912, Frame/Format >1024

### Power Requirements

Input Voltage: +28 VDC, Reverse Polarity Protected  
Maximum Power: Max 8A

### Mechanical

Material: CNC Machined Chemically Coated Aluminum  
Dimensions: 240mm L (271mm with Handle) x 240mm W x 153mm H  
Weight: 5.8 kg  
Data Connectors: 19 Pole Cannon  
Network Connector: M12 Phoenix  
GPS Input: Powered Antenna TNC Female  
DC Supply, On/Off: Sealed Locking Toggle Switch

### Environmental

Temperature (Operating): -40°C to +75°C Max.  
Acceleration: 100 g, 3 Axes  
Altitude: 50,000 ft  
Humidity: Up to 95% @ Any Temperature Forming Frost or Condensation

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