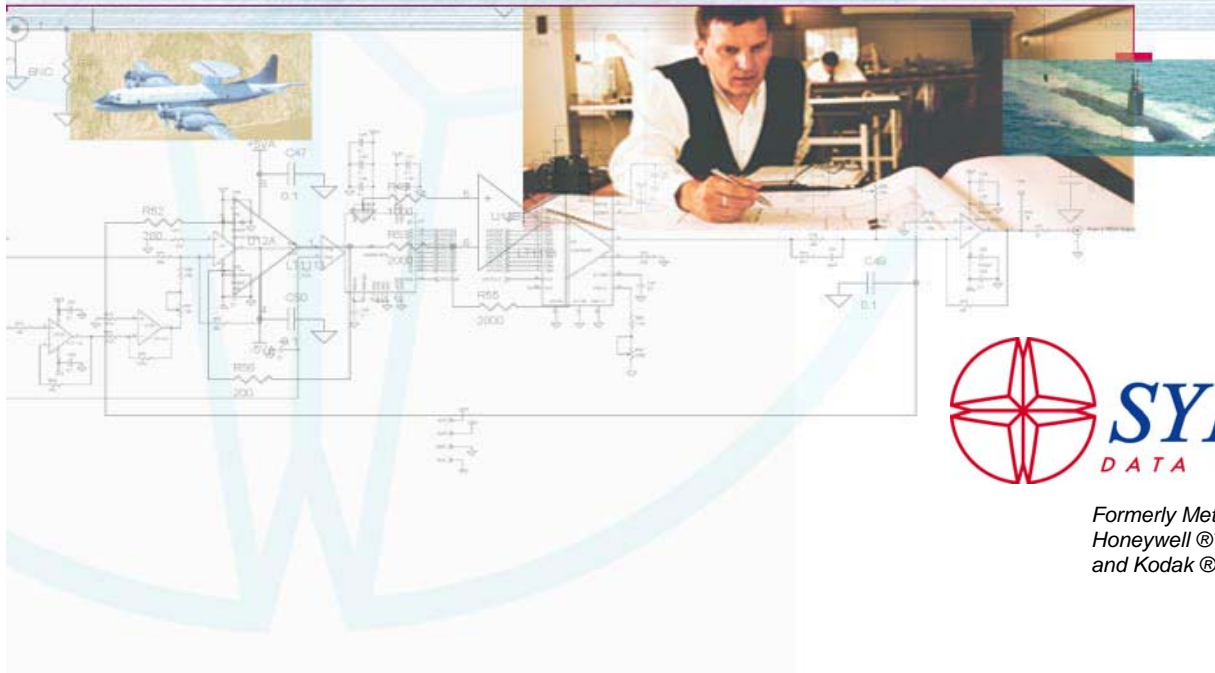


# IRIG 106 Chapter 10 Data Format

## Model 820

Telemetry Instrumentation  
Disk Recorder/Reproducer



Formerly Metrum - Datatape<sup>®</sup>,  
Honeywell<sup>®</sup>, Bell & Howell<sup>®</sup>  
and Kodak<sup>®</sup>.

The Model 820 is Sypris Data System's newest generation of Chapter 10 recorders. The Model 820 provides a scalable architecture which supports a wide range of applications such as telemetry, weapons testing, aerospace, military and intelligence gathering.

With standard features including high speed recording, large channel capacity, intuitive graphical user interface, network connectivity and numerous storage and archive options, the Model 820 provides users with a recorder designed to meet a large variety of testing requirements.



## Key features

- Up to 38 channels
- 1.6 Gbps Internal RAID
- Various signal types
- Windows® NTFS file system
- IRIG 106 Chapter 10 packet structure
- Remote control via Ethernet or RS232
- Large storage capacity
- Archive data to standard computer peripherals such as DVD, DLT, LTO, USB drives, etc.
- Networked distribution and archive of data over Gigabit Ethernet

## Specifications

- Display	Color LCD Screen	- File format	Windows® NTFS	- Network port	Gigabit Ethernet
- User interface	Graphical User Interface	- Module slots	9 Modules	- Auxiliary/voice channel	Analog signal
- Data format	User selectable between IRIG 106 Chapter 10 and ARMOR Mode	- Remote control	Ethernet or RS232	- Time channel	IRIG A, B, G, GPS
		- Operating system	Windows® XP	- Data confidence	Data loopback

### Serial Digital PCM Module

The serial PCM module provides four independent asynchronous Input/Output channels per module.

- RS-422, Differential	10 Kbps to 20 Mbps
- TTL, Single ended	10 Kbps to 32 Mbps
- ECL, Differential	10 Kbps to 160 Mbps
- ECL, Single ended	10 Kbps to 160 Mbps

### Video Module

Video module provides one channel of video Input/Output encoding/decoding

- Video MPEG 2 encoding/decoding	1 Mbps to 15 Mbps
- Input/Output	Composite, Y/C, SDI
- Video standard	NTSC/PAL
- Audio	Analog, AES

### Low Frequency Analog Module

The analog module provides four independent Input/Output channels per module. Each channel provides programmable sample rates and bit resolution. Input/Output filters are also available.

- Sampling rate	25 KSps to 24 MSps
- Bandwidth	10 KHz to 10 MHz
- Bit resolution	8, 10, 12

### High Frequency Analog Module

The analog module set provides one Input/Output channel per card set.

- Sampling rate	56 MSps
- Bandwidth	100 KHz to 24 MHz
- Bit resolution	14

## Architecture

Open and flexible architecture supports integration of commercial interface cards such as MIL-STD1553, ARINC 429, FPDP, etc.

## Environmental

### System Environmental

Operating	41° to 104° F (5° to 40° C)
Storage	-40° to 158° F (-40° to 70° C)
Humidity	5% to 80%, non-condensing

### Physical Characteristics

Size	7" (H) x 17" (W) x 24" (D)
Weight	55 pounds (typical)
Voltage	90 - 135 VAC, 180 - 270 VAC, 47 - 63 Hz



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