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MODEL 820

Telemetry Instrumentation Disk Recorder/Reproducer

IRIG 106 Chapter 10 Data Format

The Model 820 is the newest generation of Chapter 10 recorders. The Model 820 provides a scalable architecture that 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, an 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.

Features

- Up to 38 channels
- 1.6 Gbps aggregate data rate
- Various signal types
- Windows® NTFS file system
- IRIG 106 Chapter 10 packet structure
- Remote control via Ethernet or RS-232
- 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

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Features

- **Display:** Color LCD touch screen
- **User interface:** Graphical user interface
- **Data format:** IRIG 106 Chapter 10
- **File format:** Windows NTFS
- **Module slots:** Nine modules
- **Remote control:** Ethernet or RS-232
- **Operating system:** Windows
- **Network port:** Ethernet
- **Auxiliary/voice channel:** Analog signal
- **Time channel:** IRIG A, B, G
- **Data confidence:** Data loopback

Specifications

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

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:** DC to 10 MHz
- **Bit resolution:** 8, 10, 12

Video Module

The 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

Time Code/Voice Module

This module provides two input/output channels per card.

- **Time code:** IRIG A, B, G
- **Voice/auxiliary:** 15 kHz bandwidth

Architecture

Open and flexible architecture supports integration of additional functions such as receivers, bit synchronizers, PCM decommutators, etc.

Environmental

System Environmental

- **Operating temperature:** 41°F to 122°F (5°C to 50°C)
- **Storage:** –40°F to +158°F (–40°C to +70°C)
- **Humidity:** 5% to 80%, noncondensing

Physical Characteristics

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

Analog Devices, Inc.
Worldwide Headquarters

Analog Devices, Inc.
One Technology Way
P.O. Box 9106
Norwood, MA 02062-9106
U.S.A.
Tel: 781.329.4700
(800.262.5643, U.S.A. only)
Fax: 781.461.3113

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