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# AE2101D Ethernet SFP+ Disk Recorder

- Turn-key recording/playback solutions
- Can handle multiple 10 Gigabit Ethernet streams
- Aggregated recording rates of up to 1600MB/sec
- Removable, enterprise class SSD storage
- Intuitive Graphical User Interface
- Data extraction direct to workstation/network


**Avalon AE2101D-Ethernet Disk Recorder (front view).**

## TECHNICAL OVERVIEW

The Avalon Electronics 10 Gigabit Ethernet Rugged SFP+ Recorder provides users looking to record and playback multiple 10 Gigabit Ethernet streams with a complete turn-key recording system, which is compatible with the IEEE 802.3-2008 Ethernet Standard.

Up to two, 10-Gigabit Ethernet user configurable channels can be recorded or played simultaneously, with an aggregated recording rate of up to 1600MB/sec. Data is recorded on built-in, removable, enterprise-class SSD storage with available options on RAID size. A standard SFP+ socket is provided for connection to the two ethernet channels.

The recorder is controlled via an intuitive GUI allowing the user to configure each channel independently. Parameters are entered for each channel specifying MAC Address, Frame Address Types, CRC Checking, Preamble Control. All parameters contain limit checking for an easy-to-use, straight out of the box user experience.

The Recorder may be controlled locally or remotely using either an Avalon-developed Windows based application, or by using the Avalon *Command and Control* message set. External control is via the recorder's 1Gb Ethernet control port. The Avalon Application can be compiled to operate under a range of Windows and Linux operating systems.

The Avalon Application can control all recorder functions, including: *Record, Play, Interface Configuration Settings;* and *Data Management*.

Recorded data are stored in a standard file format, allowing transcription and analysis to be readily undertaken using a range of available tools.

# TECHNICAL SPECIFICATIONS

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|---|---|
| **10GbE Recorder:** | IEEE 802.3 Specification |
| **Supported modes of operation:** | LoopCopy, CRC, Flow Control |
| **Data Storage:** | 4TB SSD as standard - other options available |
| **sFPDP Interface:** | SFP+ |
| **Data extraction:** | USB 3.0; Gigabit Ethernet |
| **GUI:** | Built-in |
| **Graphics Output:** | VGA and HDMI ports provided |
| **General Options:** | Triggered recording; GPS time & position stamping; IRIG-B time-stamping |
| **Dimensions:** | 217mm (19" Half-width) x 4u x 560 mm deep |
| **Weight:** | ~ 25 Kg |
| **Power:** | Standard input: 85 to 240VAC, 50 or 60 Hz; Optionally: 24 or 48VDC |
| **Environmental:** | EMC/RFI: Designed to conform to the applicable sections of MIL-STD-461. Shock/Vibration: Designed to conform to the applicable sections of MIL-STD-810, and US Navy specifications. Similar construction approved for flight in USAF Rivet Joint and other military and civilian turbo-jet and propeller aircraft. |
| **System Control:** | Stand-alone, fully-featured Avalon-designed GUI (graphical user interface) running on an external laptop/PC (via Ethernet port). |
| **File Format:** | Midas Blue (Platinum 2.0) or MATLAB™ see note 1 |

Note 1: MATLAB is a trademark of The MathWorks Inc.



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