

StreamCorder-SD4

Standalone 4xD1 H.264 Video Recorder and Streamer



**Advanced Micro
Peripherals**

THE EMBEDDED VIDEO EXPERTS

The StreamCorder-SD4 is an intelligent, stand-alone, H.264 Streaming solution that accepts 4x NTSC/PAL/RS-170 composite video sources and records and streams them over 100/1000MBit Ethernet. The single board solution is ideal for rapid deployment in demanding applications in Military, Communications, Transportation, Mining and Energy industries.



The StreamCorder-SD4 features a dedicated hardware compression engine capable of recording all 4 video channels at full size and full frame-rate. The flexible streaming engine can then stream each channel direct from the on-board Ethernet port as well as save direct to locally attached storage for later retrieval. The StreamCorder-SD4 also supports 4 channels of audio that can be captured and streamed with the video channels.

Especially for mobile, UAS and Vetronix applications, the StreamCorder-SD4 has optional on-board features including, Controller Area Network (CAN), 3-Axis Accelerometer, High sensitivity GPS receiver, Altimeter, and a 3-Axis Digital Magnetometer (e-compass). These can integrate with other vehicle systems and data from these sources can be used as meta data embedded within the video and streamed to clients or saved for later analysis.

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Subject to change without notification

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Rapid Deployment,
Rugged, solid-state
multi-channel
video and
sensor recording



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The StreamCorder-SD4 is an intelligent stand-alone device with its own on-board CPU and does not require a host CPU or any driver or OS software. For mechanical convenience the module can be mounted on a PCI/104 stack without consuming host CPU resources.

Low Power,
Long Endurance
remote video
Surveillance

Applications

Rapid Deployment Video Recording solutions
Unmanned vehicles (UAV, ROV)
Rugged video recorders for marine, aviation
Situational Awareness
Remote Video Surveillance
Border Security
Traffic Monitoring and Control
Video Acquisition and Analytics
Solid state multi-channel video and sensor recorders

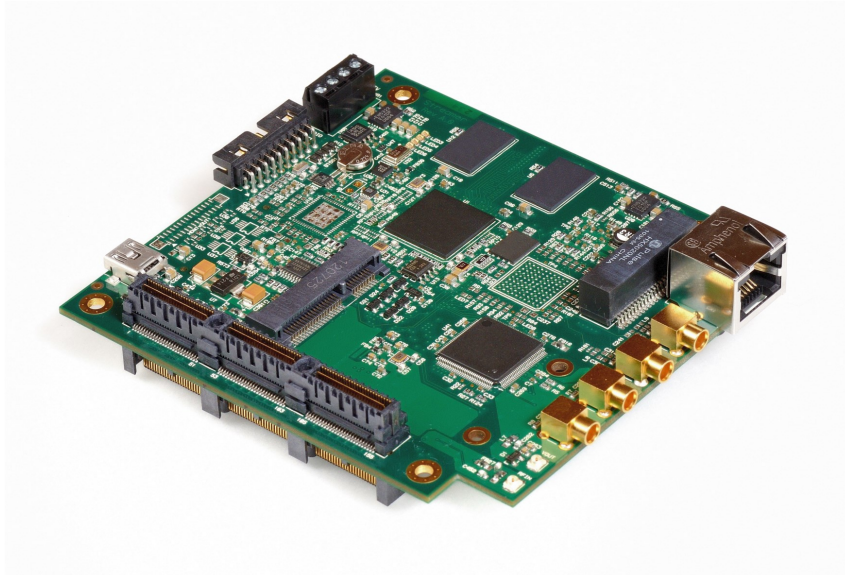
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StreamCorder-SD4

Features

- 4x PAL/NTSC/RS-170 composite video inputs
- Real-time 4x D1 H.264 encode at full frame rate
- 4 channels of audio encoding
- Single board capture, encode, stream solution
- RS-485 port for simple control of recording
- USB 2.0 OTG support for extended local storage
- Low power operation for long endurance
- Stand-alone operation
- Operating system neutral
- Standard PCIe104 mechanical form factor
- Optional CAN, GPS, Altimeter, Accelerometer, Compass

Ideally suited to
the demanding
applications, space
requirements and
environmental
conditions of
Military,
Transportation,
Mining and
Energy Industries

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Analog Video Input

Up to 4 concurrent PAL / NTSC / RS-170 composite video inputs
 Four 10bit Analog-to-Digital converters
 Anti-aliasing filter on inputs

Audio Input

4x mono input
 Provides Audio/Video synchronisation

H.264 Video Encoding

ITU-T H.264 (ISO/IEC 14496-10), supported profiles:
 Baseline profile,
 Main profile (I,P frame coding only)
 High profile (I, P frame coding only) at level 4.1
 4x D1 encode @ full frame rate
 CAVLC and CABAC coding
 Supports Variable Bit Rate (VBR)
 Supports Constant Bit Rate (CBR)

JPEG Encoder

JPEG (ISO/IEC 10918-1)
 Baseline JPEG with JFIF support

Network Interface

100/1000MBit Ethernet

Other Interfaces

RS-485 - For simple control of recording
 USB2.0 OTG - For external storage
 SD-Card slot - On-board storage

Vetronix Features (option)

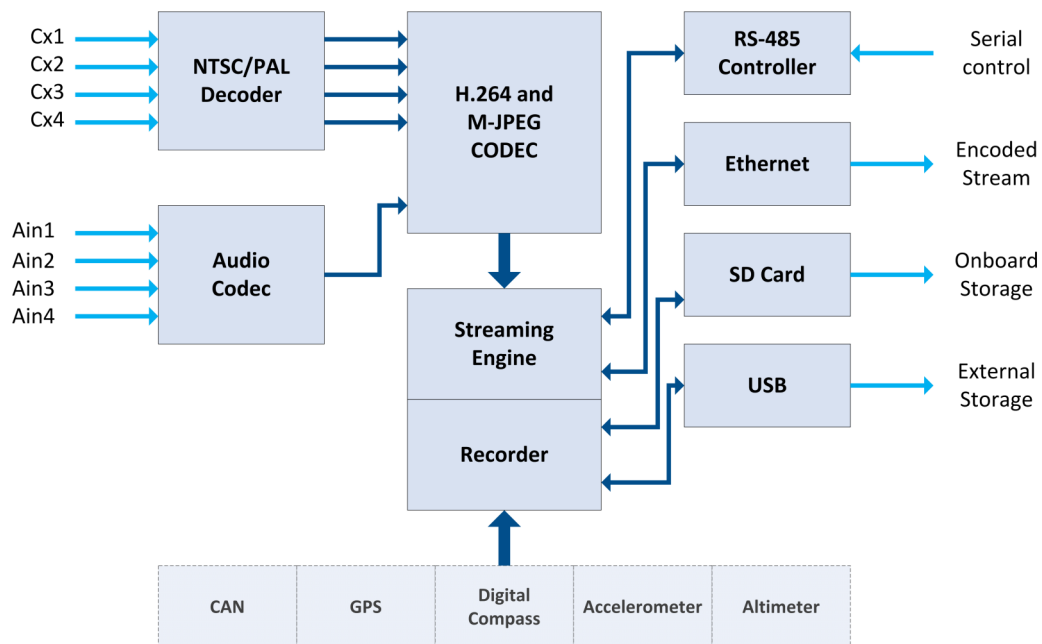
CAN2.0B port - For vehicle networks
 High-sensitivity GPS
 3-axis Digital Magnetometer for eCompass
 3-axis Accelerometer
 High sensitivity altimeter

Mechanical

Intelligent stand-alone module, does not require host computer
 Standard 3.6 x 3.8in PCIe104 form factor
 Mechanical mounting for PCIe104 stack
 Single +5V supply @ 600mA Max (3W)
 Operating temp -40°C to +85°C

Ordering Information

StreamCorder-SD4-EXT -
 H.264 Video Streamer (-40°C to +85°C)
StreamCorder-SD4-VX-EXT
 H.264 Video Streamer + Sensors (-40°C to +85°C)

**StreamCorder-SD4 Functional Diagram**