The HDCorder-SDI is an intelligent high definition video recording solution that accepts a HD-SDI input at up to 1080p60 and encodes it to the H.264 video encoding standard. The CompactPCI-Serial board solution is ideal for demanding applications in Military, Communications, Transportation, mining and Energy industries.

In addition to capturing video and stereo audio data the HDCorder-SDI supports extraction of KLV (MISB 0605.3 compliant) embedded data contained within the HD-SDI signal. The video, audio and metadata are synchronized and transferred to the host system over the CompactPCI-Serial bus. An SDI monitor output is provided.

The HDCorder-SDI also features optional on-board redundant storage to compliment the host system storage and improve data integrity. This on-board cache acts as a rolling buffer, storing the most recently recorded data. This storage redundancy ensures no mission data is lost even when starved of host CPU attention in heavily loaded system configurations.

The HDCorder-SDI is a standard 3U CompactPCI-serial module and supported for Linux and Windows.

Rev A.01- Preliminary Information
Subject to change without notification
Real-time transmission of High quality video, Audio, and Synchronized metadata

Applications

Unmanned vehicles (UAV, ROV)
Mission Recorder
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
Ideally suited to the demanding applications, space requirements and environmental conditions of Military, Transportation, Mining and Energy Industries

**Features**

1x HD-SDI input up to 1080p60
Real-time HD H.264 encode at 1080p60
Stereo audio capture from HD-SDI
KLV Metadata capture from HD-SDI
HD-SDI monitor output
Optional onboard redundant storage (up to 16GBytes)
Standard 3U CompactPCI-Serial mechanical form factor
HD-SDI Video Input
Flexible capture at up to 1080p60
HD-SDI monitor output

Audio Input
Embedded audio captured from HD-SDI input
Provides audio/video synchronisation

KLV Metadata
Embedded KLV metadata captured from HD-SDI input
MSB 0605.3 compliant
Synchronised with video/audio

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
  Up to 1080p60 encode
  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

Additional Features
On-board redundant storage (option)

Mechanical
Standard 3U CompactPCI-Serial form factor.
Operating temp 0˚C to 60˚C
Operating temp -40˚C to +85˚C (extended temp option)

Ordering Information
HCORDER-SDI
  H.264 HD Video Streamer (0 to 60˚C)
HCORDER-SDI-EXT
  H.264 HD Video Streamer (-40˚C to +85˚C)

HDCorder-SDI Functional Diagram