

Rugged HDMI / DVI Video Recorder and Streamer

Model: SD-7RV5CH





The SD-7RV5CH is an intelligent, HDMI / DVI Recording and Streaming solution that accepts 2x HDMI/ DVI inputs and 4x PAL / NTSC / RS-170 composite video inputs at up to 1080p30 and encodes record and support streams over 100/1000MBit Ethernet.

The SD-7RV5CH solution is ideal for demanding applications in Military, Airborne, UAVs, Navy Communications, Armoured and Tracked Military Vehicles.

The flexible streaming engine can stream the compressed video direct from the on-board Ethernet port as well as save directly to local storage for later retrieval. Stereo audio embedded in the input HDMI/DVI source can also be captured and streamed, synchronized with the video.



The SD-7RV5CH also features optional on-board Controller Area Network (CAN), 3-Axis Accelerometer, High sensitivity GPS receiver, Altimeter, and 3-Axis Digital Magnetometer (e-compass). These can integrate with other 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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Highlights

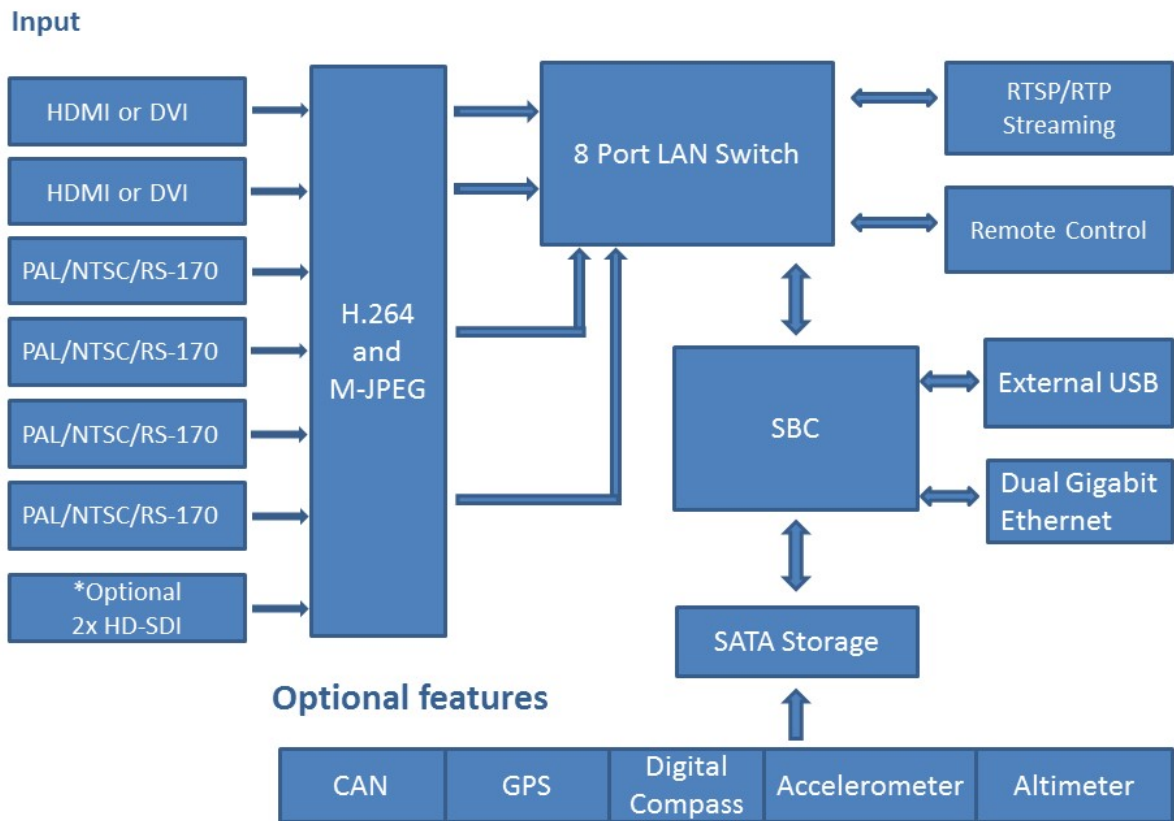
- Intel® 6th Generation Core™ / Xeon® E3 v5 Family Processor
- 2x HDMI or DVI inputs up to 1080p30
- 4x concurrent PAL / NTSC / RS-170 composite video inputs
- Up to 2x HD-SDI inputs up to 1080p30 (Optional)
- Real-time HD H.264 encode at 1080p30
- Optional CAN, GPS, Altimeter, Accelerometer, Compass
- Up to 2TB Solid State Storage
- 4x USB 3.0, 2x GbE, 2x RS-232/485
- Low power operation for long endurance
- Remote power on/off and reset whole system option



Applications

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

Block Diagram





Specifications

Processor & RAM

- Intel® 6th Gen. Xeon® E3 v5 Family E3-1505L v5 Processor
- DDR4-2133 up to 32GB ECC

HDMI / DVI Video Input

- 2x HDMI or DVI inputs Flexible Capture at up to 1080p30
- * Up to 2x HD-SDI inputs up to 1080p30 (Optional)

Analog Video Input

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

Audio Input

- Embedded Audio captured from HDMI / DVI input
- Provides Audio/Video synchronization

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 1080p30 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

Network interface

- 2x Gigabit Ethernet
- miniPCIE slot for optional WiFi or 4G Modem

Remote Control

- Remote control via serial port to turn on/off the power or reset the whole system

Storage

- Up to 2TB Solid State Storage

Power Requirements:

- Wide range input +9V to +36V DC
- Reverse polarity protection
- Overload protection and transient voltage suppression

Environmental

- Operating temperature: -40°C to +71°C
- Storage temperature : -50°C to 85°C
- Operational Altitude (20,000ft) MIL-STD-810G, Method 500.5, Procedure II.
- Humidity: MIL-STD-810G, Method 507.5, and Procedure II.
- Sand and Dust: MIL-STD-810G, Method 510.5 Procedure I (Dust) & II (Sand).
- Salt Spray: MIL-STD-810G, Method 509.5.
- Fungus: MIL-STD-810G, Method 508.6.
- Vibration: MIL-STD-810G method 514.6, procedure I.
- Mechanical Shock: MIL-STD-810G, Method 516.6 Procedure I & V.
- Acceleration: MIL-STD-810G, Method 513.6, Procedure I, II and III.
- EMC /EMI : MIL-STD-461 CE102, CS101, CS114, CS115, CS116, RE102 , RS103

Mechanical Drawings

