microHydra-SD4

Ultra Low Latency 4-channel Video Streaming Appliance

The microHydra-SD4 is a 4-channel Ultra Low Latency (ULL) IP video streaming appliance, capable of capturing, compressing and concurrently streaming up to 4 channels of NTSC/PAL/RS-170 video with a latency of under 40ms. This rugged video appliance is ideal for rapid deployment in demanding applications in Military, Communications, Transportation and Energy industries.

The microHydra-SD4 features a dedicated hardware H.264 compression engine that can encode all 4 video channels at full size and frame-rate. The flexible RTSP/RTP streaming engine supports Unicast and Multicast and streams each channel over the GigE Ethernet to client systems for low latency viewing and analysis. The microHyrda-SD4 also supports 4 channels of audio which can be captured and streamed with the video data.

The microHydra-SD4 is housed in a rugged, watertight, conduction cooled, IP67 rated enclosure with sealed MIL-D38999 connectors and is ready to be installed into mobile platforms and harsh environments.

Key Features

- 4 PAL/NTSC/RS-170 video channels
- High quality, Ultra Low Latency H.264 video compression
- Video Encode Latency less than 40ms
- Gigabit Ethernet
- Rugged IP67 enclosure
- 4 channels audio input
- MIL-D38999 connectors for secure cabling

RVAP

The microHydra-SD4 is one of AMP's Ready Video Appliance Platforms (RVAP). Using proven rugged PC/104 modules with a custom designed IP67 enclosure, our RVAP are SWaP optimised COTS solutions for a wide range of embedded video requirements.

Contact us for details on how RVAP can help in your project.

Rev A.02
Preliminary—Subject to change without notification

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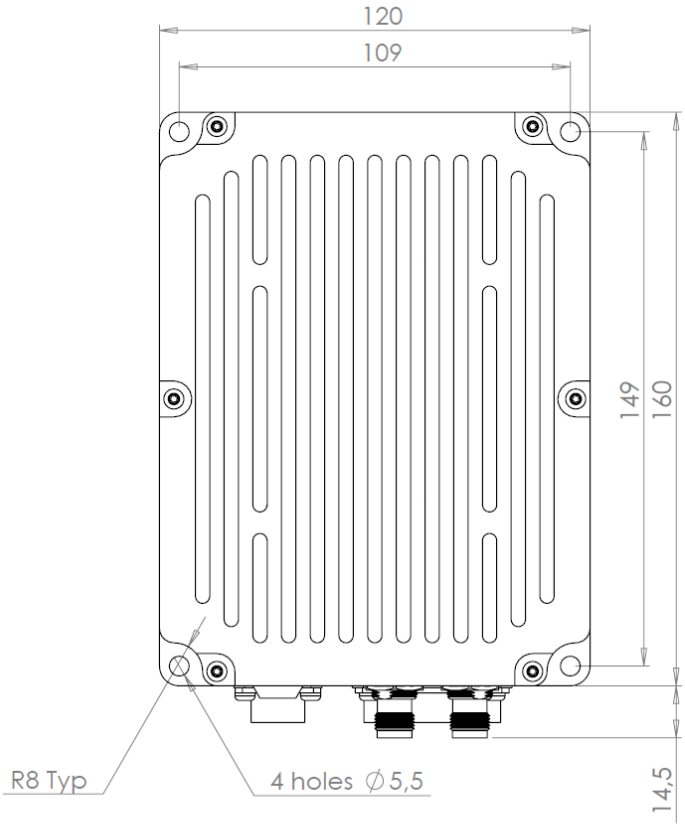
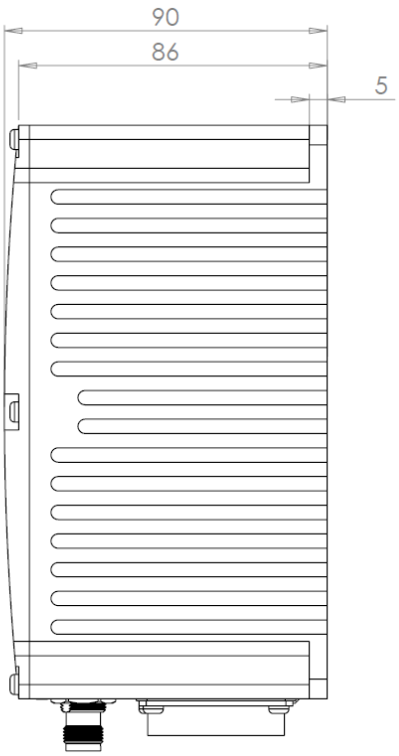
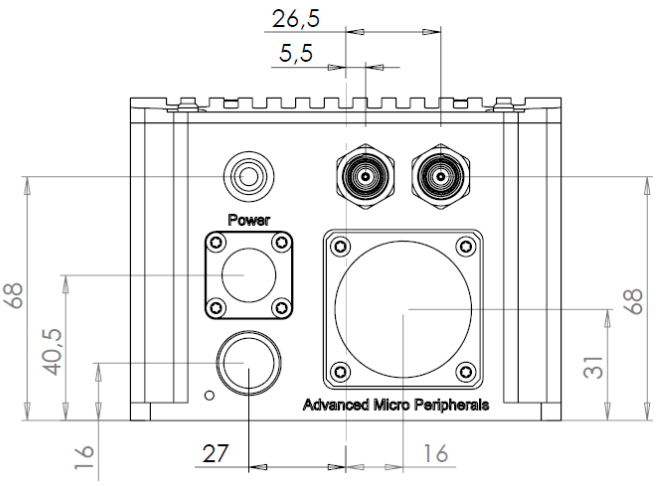
Mechanical Drawing







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microHydra-SD4

Ultra Low Latency 4-channel Video Streaming Appliance

Technical Specification

Analog Video Input

Up to 4 independent PAL/NTSC/RS-170 inputs

Audio inputs

4 independent mono audio inputs
Line level inputs

H.264 Video Compression

ITH-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 full size encode at full frame rate (25/30fps)
Supports Variable Bit Rate (VBR) & Constant Bit Rate (CBR)
Real-time multi stream H.264 Ultra Low Latency capture

Ultra Low Latency (ULL) Streaming

Less than 40ms video encode latency [1]
RTSP/RTP Multicast or Unicast streaming

Video Recording to SDD

Video Playback to Ethernet

Network Interface

100/1000MBit Ethernet for RTSP/RTP streaming and control

Control

Web front end
RTSP command interface

Power

12-28V DC input
Less than 12W power consumption

Mechanical

Milled from solid Aluminium Alloy block
Size: 160 x 120 x 90 mm (6.3 x 4.7 x 3.5 inch) LWH
Weight: 1.6Kg
MIL-D38999 Connectors

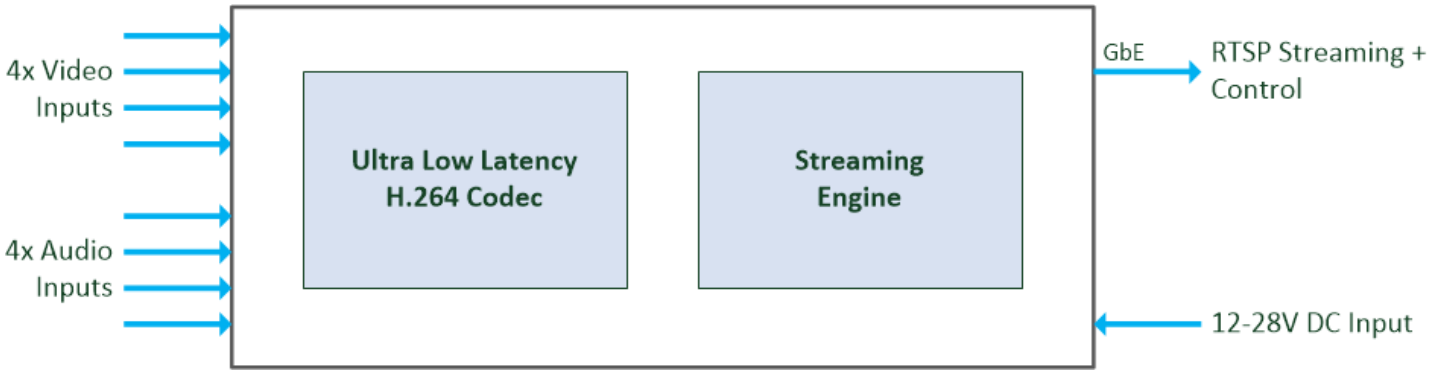
Environmental

Operating temp –40˚C to +70˚C
IP67 dust-proof, water immersion to 1m

Ordering Information

microHydra-SD4
Ultra Low Latency 4-channel video streamer

Functional Diagram



[1] Streaming latency is less then 40ms. When audio is included in the stream, overall system Glass-to-Glass streaming latency can be higher due to audio buffering at the remote client.

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