

# microHydra-SD8

## Ultra Low Latency 8-channel Video Streaming Appliance

The microHydra-SD8 is a 8-channel Ultra Low Latency (ULL) IP video streaming appliance, capable of capturing, compressing and concurrently streaming up to 8 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-SD8 features a dedicated hardware H.264 compression engine that can encode all 8 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 microHydra-SD8 also supports 4 channels of audio which can be captured and streamed with the video data.

The microHydra-SD8 has a vehicle class power supply and can be driven from a 12-28V DC input. The system 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

- ◆ 8 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
- ◆ Vehicle-protected Power Supply
- ◆ MIL-D38999 connectors for secure cabling

### RVAP

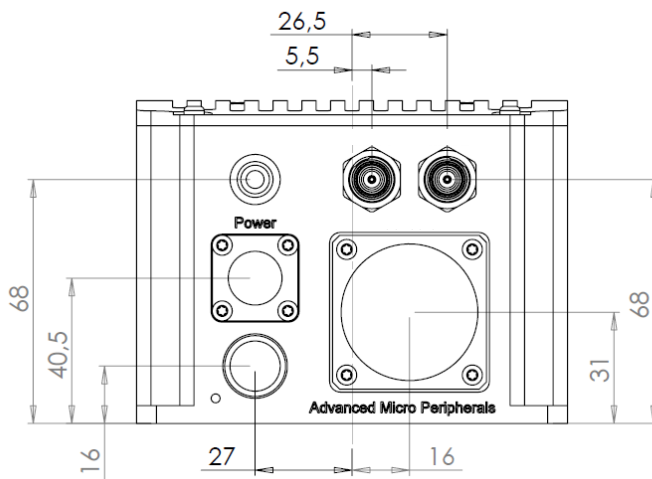
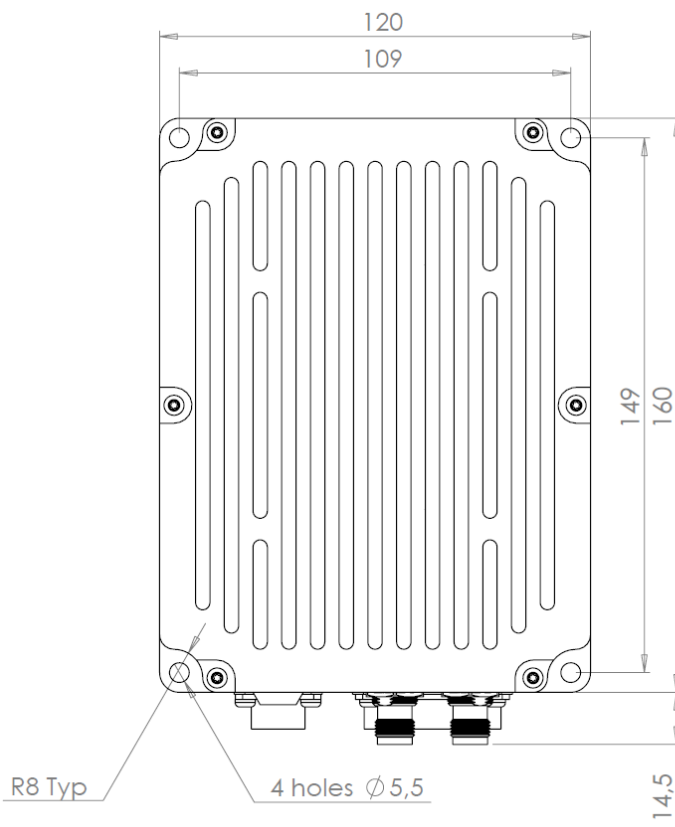
The microHydra-SD8 is one of AMP's Ready Video Appliance Platforms (RVAP). Using proven rugged PC/104 modules with a custom designed IP67 enclosure, our RVAP are SWaP optimised COTS solutions for a wide range of embedded video requirements.

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





## Mechanical Drawing





## Technical Specification

### Analog Video Input

Up to 8 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

8x D1 full size encode at full frame rate (25/30fps)

Supports Variable Bit Rate (VBR)

Support Constant Bit Rate (CBR)

Real-time multi stream H.264 Ultra Low Latency capture

### Ultra Low Latency (ULL)

Less than 40ms video encode latency <sup>(1)</sup>

### Streaming

RTSP/RTP Multicast or Unicast streaming

### 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 15W power consumption

Vehicle load-dump protection

Reverse voltage protection

Over voltage protection

### Mechanical

Milled from solid Aluminium Alloy block

Size: 160 x 120 x 90 mm (6.3 x 4.7 x 3.5 inch) LWH

MIL-D38999 Connectors

### Environmental

Operating temp -40°C to +70°C

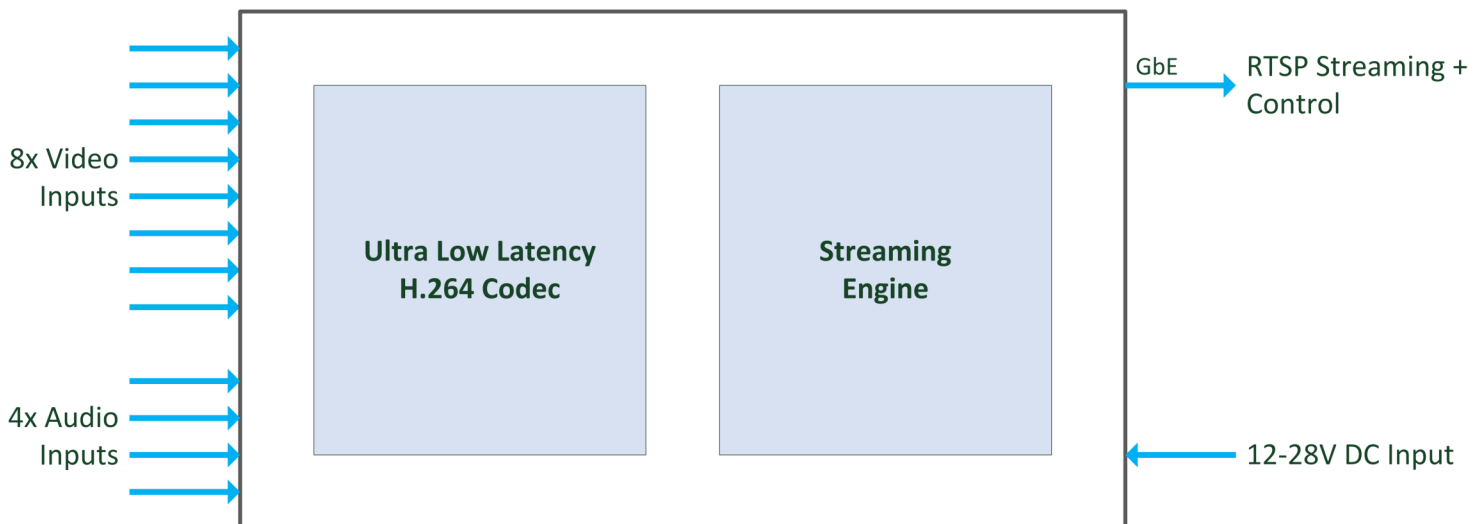
IP67 dust-proof, water immersion to 1m

### Ordering Information

**microHydra-SD8**

Ultra Low Latency 8-channel video streamer

## Functional Diagram



<sup>(1)</sup> Streaming latency is less than 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.

