The DXStream-HDMI is an intelligent, stand-alone, ultra low latency H.264 streaming client that receives, decodes, and displays H.264 encoded video streams. The DXStream-HDMI supports the industry standard RTP/RTSP protocols for streaming data via the integrated 100/1000MBit Ethernet connection. This SWaP optimised solution is ideal for rapid deployment in demanding applications in Military, Communications, Transportation, Mining and Energy industries.

The DXStream-HDMI features a dedicated hardware decode engine capable of decoding up to 1080p60 H.264 video at full size and full frame-rate with Ultra Low Latency (under 60ms). The intelligent streaming client is configured via a web interface and once configured the DXStream-HDMI runs autonomously without any user interaction.

The DXStream-HDMI is an intelligent stand-alone device with it's 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 PC/104 stack without consuming host CPU resources.
Applications

All-round Real-Time Situational Awareness

Real-time video feedback from remote platforms

Unmanned vehicles (UAV, ROV)

Real-time IP video distribution

Remote Video Surveillance

Border Security

Traffic Monitoring and Control
DXStream-HDMI

Ultra Low Latency Standalone H.264 Streaming Client

Features

- Real-time H.264 decode at up to 1080p60
- Ultra Low Latency technology with latency below 60ms
- H.264/MPEG-4 AVC (Part 10) Decoder
- HDMI/DVI output
- RTSP/RTP streaming protocol support
- Single, rugged, real-time video streaming client solution
- Stand-alone operation
- Web interface for configuration
- Standard PC/104 mechanical form factor
**Video Output**

HDMI/DVI output up to 1080p60.

**H.264 Video Decoding**

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 decode @ full frame rate
Supports Variable Bit Rate (VBR)
Supports Constant Bit Rate (CBR)

**Streaming Protocols**

RTSP (RFC2326) and RTP (RFC3350) support
RTSP/RTP over TCP
RTP over UDP

**Ultra Low Latency**

Less than 60ms video decode latency

**Network Interface**

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

**Mechanical**

Intelligent stand-alone module, does not require host computer
Standard 4.55 x 3.775in PC/104 form factor
Mechanical mounting for PC/104 stack
Single +5V supply
Operating temp 0˚C to 60˚C
Operating temp -40˚C to +85˚C (extended temp option)

**Ordering Information**

DXStream-HDMI
H.264 Ultra Low Latency Video Streamer (0 to 60˚C)

DXStream-HDMI-EXT
H.264 Ultra Low Latency Video Streamer (-40˚C to +85˚C)

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**DXStream-HDMI Functional Diagram**