

UltraCoder

HEVC Encoder

The Vislink UltraCoder is a lightweight 1RU, 1/2 rack unit. The UltraCoder uses the latest advanced HEVC encoding techniques to offer up to 50% bit rate reduction when compared to H.264, resulting in the delivery of high quality video at low bit rates. The UltraCoder is the most advanced encoder available, with the ability to encode a single 4K UHD video or up to four simultaneous HD video streams. The small form-factor packaging makes the UltraCoder an ideal product for flyaway or vehicle mounted applications, where weight and space is critical.



Partner the UltraCoder with a Vislink UltraDecoder to form a complete end-to-end HEVC encode/decode solution.

Key Features

- Capable of encoding 4K UHD, HD & SD video
- Uses the latest advanced HEVC encoding techniques to offer up to 50% bit rate reduction compared to H.264
- Encode one 4K UHD channel or up to four simultaneous HD video streams
- User configurable SFP Video Interface
- The UltraCoder can be partnered with the UltraDecoder to provide a complete end-to-end encode and decode solution

Typical Applications

- SNG
- ENG
- IP Networks

Video Parameters

Video Encoder Profiles

- 4k UHD
 - Main 10-8/10bits 4.2.0
 - Main 4.2.2 10-8/10 bits 4.2.0/4.2.2
 - 1.0-28 Mbps
- HD
 - Main 10-8/10 bits 4.2.0
 - 1.0 – 28 Mbps (per channel with maximum combined rate of 28 Mbps)
- SD
 - 4.2.0 Main 0.5 – 6 Mbps
 - 4.2.2 Main 2.0 – 6 Mbps

Video Inputs

- 2 SFP+ module slots supporting electrical and optical interfaces carrying:
 - 4 x 3G-HDSI (UHD)
 - 4 x independent HDSI

Video Formats

- 480i/29.97
- 576i/25
- 720p/50/59.94/60
- 1080i/50/59.94/60
- 1080p/23.98/24/25/29.97/30/50/59.94/60
- 2160p/23.98/24/25/29.97/30/50/59.94/60

IP Video Traffic Interface

Type

- 10/100/1000 Base-T Ethernet

Protocol

- IEEE802.3 Ethernet
- Encapsulation for ASI – RTP (RFC2250), ARP, IPv4, IGMPv2/3, TCP/UDP
- MultiCast

FEC

- Pro-MPEG Forum Code of Practice #3 release 2 (CoP3) / SMPTE 2022-2007

Flexibility

Remote Control

- Ethernet
- HTTP
- SNMP

Outputs

- IP
- ASI

Licenses

- The following licenses are available on the UltraCoder:
 - Additional HD encoding (up to 3 licenses)
 - 4K UHD encoding
 - BISS 1/E Encryption

Audio Parameters

Audio Encoder

- ISO 14496-3 2006 (HE-AAC) 8 pairs

Audio Inputs

- Embedded

Audio Pairs Assignment Examples

	Video Stream 1	Video Stream 2	Video Stream 3	Video Stream 4
Valid	2	2	2	2
	4	2	2	0
	4	4	0	0
	6	2	0	0
	8	0	0	0
Invalid	4	2	1	1

Example audio configuration for HD channels on one UltraCoder. You can split the audio pairs across up to four video streams or use on just one stream, as shown above. Pairs must be used in even numbers 2, 4, 6 or 8; odd pairs are invalid

*The UltraDecoder can only support four pairs of audio

Environment & Physical

Dimensions

- 210 mm (W) x 350 mm (D) (8.27" (W) x 13.78" (D))
- 1RU, 1/2 rack

Weight

- 1.9 kg approx. (4 lbs.)

Temperature

- Operational:
 - 0°C to +50°C (32°F to 122°F)
- Storage:
 - 20°C to +70°C (-4°F to 158°F)

Power

- <100 VA
- 90 to 264 VAC
- 50/60 Hz