



# Low Latency HD and 4K Encoders.

Low Latency Encoders, either HD or 4K, for live events or applications where low latency is critical to optimize end-user experience when viewing live streamed content.

Uniguest offers encoders for both HD and 4K content delivery. The HD Encoder offers dual HDMI and SDI inputs as standard, and those looking to deliver 4K streams have the option of either a single or dual input version, again with HDMI and SDI.

All units deliver sub-frame encoding at up to 1080p60 for HD and 2160p60 for 4K, with an overall glass-to-glass latency as low as 100ms for HD and 170ms for 4K. Both HD and 4K devices can be deployed as part of a wider IPTV, Digital Signage and Video Streaming solution.



## Encoder Features

A standalone hardware appliance versus an add-in card to the Tripleplay server

The ENCOD3R-LH2 HD Encoder achieves a glass-to-glass delay as low as 100ms when outputting 1080p60\*

ENCODER-LH2 offers dual HDMI and HD-SDI inputs

The ENCOD3R-LK42 and ENCOD3R-LK41 4K Encoders achieve a glass-to-glass delay as low as 170ms when outputting at 2160p60 over SDI.\*

4K Encoders have HDMI and SDI inputs with the option of a single input (ENCOD3R-LK41) and dual inputs (ENCOD3R-LK42)

**\*Subject to local network configurations and players**

## Sports and Entertainment

- Synchronize live TV stream with the on-pitch action with no discernible time lag
- Deliver optimal experience for fans as they never miss out on live action, even when not pitch-side
- Ensure fans view, hear and can celebrate key match moments wherever they are in the stadia

## Corporate & Enterprise

- Live stream town hall events to screens across a site without a noticeable time lag
- Stream business critical market data to desktops for competitive advantage

## Technical Specifications

Model	HD Dual Channel ENCOD3R-LH2	4K Single Channel ENCOD3R-LK41	4K Dual Channel ENCOD3R-LK42
HDMI Inputs	2	1	2
HD-SDI Inputs	2	1	2
Output	HD H.264 UDP multicast stream	4K HEVC/H.265 UDP multicast stream	4K HEVC/H.265 UDP multicast stream
Intrinsic Latency	0.25ms	0.25ms	0.25ms
Achievable Glass-to-Glass Latency	100ms	170ms	170ms
Maximum Resolution / Frame Rate	1080p60	SDI: 2160p60 HDMI: 2160p60	SDI: 2160p60 HDMI: 2160p60
Form Factor	1U	1U	1U
Codec	H.264	HEVC/H.265	HEVC/H.265

## Encoder Features

All models have an intrinsic latency of less than one frame

Units can be sited close to the input source, reducing the need for cabling back to the server room

Only 1U in size to save rack space

Supports two inputs (HDMI or SDI), converting the signal to a multicast IPTV stream

Streams can be used on any media player, STB, or smart TV that supports multicast IPTV streams and the relevant codec (H.264/H.265). Latency is optimized on BrightSign, SP1, and SP2. All other endpoints will have a higher latency.

Actual glass-to-glass latency is dependent upon multiple factors e.g. network topology, signage content, etc.