

## MK CE Mini



### Effortless Single Channel Contribution Encoding

The CE Mini forms part of MediaKind's Contribution offering for acquiring and processing amazing content from live events and is a high performance single channel contribution encoder in a cost effective, low power, compact form factor unit.

Whether sending live video over managed IP networks, or via the open internet the CE Mini provides high quality HEVC or MPEG-4 AVC video compression. It generates an IP encapsulated MPEG transport stream output, with Zixi or SRT (Secure Reliable Transport) error correction and security if required, or other options including RTMP output for social media

It effortlessly connects to professional or 'prosumer' cameras via its in-built SDI and HDMI input interfaces, for quick and simple deployment.

For contribution over managed IP networks and into public cloud instances, or pushing live video to social media and streaming platforms, the CE Mini is the ideal video encoding solution.

## Product Overview

### Single-Channel simplicity

High quality UHD/HD/SD 4:2:0 8 bit encode using HEVC or MPEG-4 AVC whilst operating at extremely low power.

### Deployment Simplicity

'Set and forget' connectivity and miniature form-factor allows quick setup and tear-down between live events.

### Direct streaming

The MK CE Mini offers many options to facilitate direct streaming output of live events to various clients. Target Social Media platforms or integrate within MediaKind's award winning Aquila and Streaming blueprints.

## Key Product Features

- UHD/HD/SD audio/video capture over built in SDI or HDMI 2.0 inputs
- Real-time 4:2:0 8 bit video encode (MPEG-4 AVC or HEVC)
- Variety of streaming outputs via Gigabit Ethernet or USB wireless dongle
- Video Record to USB Storage
- Small form-factor (90x100 mm) and low power consumption for easy adoption in portable applications
- Web UI control with CGI for fast remote control development
- Nimbra Edge connectivity to NetInsight Nimbra Edge Cloud



## Specifications

### Video and Audio Options

<b>Video Encoding</b>	<p><b>H.265/HEVC H.264/MPEG-4 AVC</b> up to 4Kp60 (HDMI only)</p> <p><b>HDMI 2.0</b></p> <p>3840x2160: 60p/59.94p/ 50p/30p /29.97p/25p</p> <p>1920x1080: 60p/59.94p/50p/30p/29.97p/25p/24p</p> <p>1920x1080: 60i/59.94i/50i</p> <p>1280x720: 60p/59.94p/50p</p> <p>480i, 576i: 29.97, 25</p> <p><b>SDI</b></p> <p>1920x1080: 60p/59.94p/50p/30p/29.97p/25p</p> <p>1920x1080: 60i/59.94i/50i</p> <p>1280x720: 60p/59.94p/50p/30p/29.97p/25p</p> <p>480i, 576i: 29.97, 25</p> <p><b>Profile</b> AVC BP/MP/HP Level 5.1 HEVC Main Level 5.1</p> <p><b>Bit depth</b> 8/10-bit</p> <p><b>Chroma Sampling</b> 4:2:0</p> <p><b>Rate control</b> CBR</p> <p><b>GOP structure</b> I only, IP, IPB, IBBP</p> <p><b>Bitrate</b> 64kbps~32Mbps</p>
<b>Audio Encoding</b>	<p>MPEG1 Layer II, AAC, HE-AAC, HE-AAC v2, 48Khz</p> <p>Dolby AC-3®</p> <p>4x Audio output on TS over IP and SRT/Zixi outputs</p>
<b>Closed Captions</b>	<p>Pass-through of CEA-608/708 Closed Captions</p>

## Inputs

<b>SDI Input</b>	Connector: 1x DIN 1.0/2.3 75 ohms (BNC adaptor included) 3 Gbps HD-SDI standard: SMPTE 424M HD-SDI standard: SMPTE 292M Embedded Audio: SMPTE 299M (HD) SDR/HDR Signalling: SMPTE ST 425-5
<b>HDMI Input</b>	HDMI 2.0 interface
<b>Control</b>	Web browser interface (HTTP or HTTPS) CGI (document available)

## Outputs

<b>Ethernet</b>	Connector: 1 x RJ 45 Format: 100/1000BaseT VLAN tagging
<b>USB</b>	Connector: 2 x USB 2.0 WIFI and LTE dongle support (contact MediaKind for compatibility details)

## Stream Processing

<b>Stream Features</b>	<b>Streaming Protocols</b> Zixi/SRT/RTSP/RTMP/HLS/TSolP output SRT Caller and Listener mode Nimbra Edge connectivity to NetInsight Nimbra Edge Cloud
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## Physical and Power

<b>Dimensions (W x D x H)</b>	(L) x (W) x (H): 130 x 94 x 48 (mm)
<b>Weight</b>	1kg
<b>Input Voltage</b>	DC 12V
<b>Power Consumption</b>	Less than 12.5W (based on UHD encoding from HDMI)
<b>Cooling</b>	Integrated fans

## Environmental Conditions

<b>Operating Temperature</b>	-10°C to 50°C
<b>Storage Temperature</b>	-40°C to 85°C
<b>Relative Humidity</b>	50% to 95% (Non-condensing)