N60 4K HDMI to NDI Converter

NDI & NDI|HX, Encoding and Decoding
All-in-One

Descriptions

N60 4K NDI Bi-directional Converter is Kiloview’s latest NDI converter, which can handle both NDI and NDI|HX, encoding and decoding. It supports resolution up to 4K UHD HDMI, YCbCr 4:2:2 10bit and AVC (H.264/HEVC(H.265), delivering high-quality images with ultra-low latency less than 80ms. N60 has a built-in LCD panel and a scroll-button for better interaction. With the panel you can quickly monitor and configure your device, such as IP configuration, recording status, etc. Besides, it can also work as a big Tally.

With other updated features such as PoE and dual ethernet ports, TF storage, PTZ control, 3.5mm analog audio and voice intercom, N60 is your ideal choice to get access to the fabulous NDI/NDI|HX world with the most versatile options and convenient operations.
Features

- Encoding + decoding
- Built-in LCD panel + scroll-wheel
- Cold-shoe and V-mount
- Ultra Low latency transmission
-Local storage with TF card
- PTZ control via USB

Advantages

NDI and NDI|HX, Encoding + Decoding, All-in-One

- Plug-and-play operation, simple Web UI management
- 4Kp60 HDMI input and encode to both NDI and NDI|HX
- NDI or NDI|HX decoding to 4K HDMI output
- Support YCbCr 4:2:2 10bit for encoding and decoding, enjoy professional image quality
- Point to point latency less than 80ms

Note: N60 can be used as either an encoder or a decoder but not simultaneously currently. Please note our update when simultaneous working is available.

Built-in LCD panel + Scroll-wheel

- A built-in LCD panel plus a scroll-wheel for management and easy configuration
- Working as a big tally

Audio and intercom

- Support 3.5mm analog audio line in/out
- Support voice intercom between all Kiloview devices and the control PC/phone, or with Kiloview Intercom Server

PTZ control

- Support PTZ control by external USB
- USB keyboard for switching optional or control a PTZ camera
- And PTZ control over IP with different protocols, no extra cable required

Other features

- TF card storage available, enabling cache for Kiloview Smart Recording for reliable recording
- Support cold-shoe mounting and V-mounting (paid accessories)
- 2*1000M Ethernet port, one for PoE (IEEE 802.3AT)
- Seamless integration with Kiloview Multiview Server, Recorder System, KiloLink Server and NDI CORE
## Connectors and Basic Function

<table>
<thead>
<tr>
<th>Model</th>
<th>N60</th>
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</table>

### Video input
1*4Kp60 HDMI 2.0

### Video output
1*4Kp60 HDMI 2.0 (Loop or decoding output)

### Audio port
1*3.5mm Line in
1*3.5mm Line out

### Network
2*RJ45 1000Mbps Ethernet port
  - Ethernet 1 with PoE (IEEE 802.3AT, 24W Max)

### Video resolution
- Input: up to 3840x2160@60fps (4Kp60), lowest 720p50
- Output (decoding or loop out): up to 3840x2160@60fps (4Kp60), lowest 720p50

### NDI® codec capacity
- 1x NDI® FB/HX encoding or 1x NDI® FB/HX decoding

### NDI®CODEC feature
- SpeedHQ (NDI CODEC): SHQ0, SHQ2
- ISO MPEG-4 Part 10: Advanced Video Coding (AVC)/ITU H.264
- ISO MPEG-H Part 2: High Efficiency Video Coding (HEVC)/ITU H.265
- AVC (H.264): Baseline, Main, High, High10, High 4:2:2 up to 5.2 level
- HEVC (H.265): Main, Main Intra, Main10, Main10 Intra, Main 4:2:2 10, Main 4:2:2 10 Intra up to 5.1 High Tier

### Audio encoding and decoding
- NDI Audio; AAC-LC, Opus, G.711 a-Law/u-Law; others software expansion

### USB
- 1*USB3.0 (type A)
- 1*USB3.0 (type C)

### Human-computer interaction
- 1.96” LCD screen, Kiloview Magic Rotor
<table>
<thead>
<tr>
<th>TF storage</th>
<th>Support TF card for recording, capacity up to 2TB</th>
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<tbody>
<tr>
<td>Tally</td>
<td>Built-in OLED panel available as front/rear Tally</td>
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<tr>
<td>Power</td>
<td>DC 12V (5.5/2.5) or PoE</td>
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**Performance**

| NDI                  | Support both NDI and NDI|HX 2.0 (Note: It will support NDI|HX 3.0 in the near future) |
|----------------------|------------------------|---------------------------------|
| Typical Bitrates     | **SpeedHQ (NDI CODEC):** 4Kp60: 250Mbps, 1080p60: 132Mbps, 1080p30/1080i60: 112Mbps, 720p60: 105Mbps, 480i60: 62.5Mbps |
|                      | **AVC (H.264):** Adjustable from 1Mbps to 120Mbps. >24Mbps (4Kp60); >10Mbps(1080p60). |
|                      | **HEVC (H.265):** Adjustable from 1Mbps to 120Mbps. >15Mbps (4Kp60); >6Mbps(1080p60). |
| Recording            | TF card available for local storage to .mov files. Support remote recording with Kiloview Recorder System, ensuring reliable recording together with Kiloview Smart Recording technology (TF card required). |
| Voice intercom       | Support voice intercom by USB headset between devices directly, or with Kiloview Intercom server. |
| PTZ                  | Support PTZ control through USB to serial RS232/485/422; or PTZ control over IP with different protocols, no extra cable required |
| Management           | Web UI and remote management with Kiloview KiloLink Server |
| Firmware update      | Firmware upload by Web UI and remote upgrade with Kiloview KiloLink Server |
| Mounting             | Support cold-shoe mounting and V-mounting |
| Power Consumption    | 16W Max |
| Certificates         | CE/ FCC/ROHS |
| Dimension            | 135*98*35mm |