Kiloview N50 is a full-functional NDI converter that uses the leading FPGA technologies, advanced-level AVC/HEVC algorithm, and NDI algorithm. It supports encoding/decoding within one unit which meets all your demands regarding IP-based video transmission.

N50 supports 12G-SDI format encoding/decoding of both NDI High-bandwidth and NDI|HX2/3 by H.264/H.265.
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
- 12G SDI input and encode to both NDI and NDI|HX2 & NDI|HX3
- NDI or NDI|HX2 or NDI|HX3 decoding to 12G SDI output

**Lower Latency, Better Image Quality**

- End to end latency less than 80ms for full NDI
- Support YCbCr 4:2:2 10bit for encoding and decoding, enjoy professional image quality

Note: N50 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)
### Model

<table>
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<tr>
<th>Connectors and Basic Function</th>
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<tbody>
<tr>
<td><strong>Video input</strong></td>
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<tr>
<td><strong>Video output</strong></td>
</tr>
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</table>
| **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) |
<p>| <strong>Human-computer interaction</strong> | 1.96” LCD screen, Kiloview Magic Rotor |</p>
<table>
<thead>
<tr>
<th>TF storage</th>
<th>Support TF card for recording, capacity up to 2TB</th>
</tr>
</thead>
<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*123.6*35mm |