

4KX-PLUS

4K to USB 3.0 Converter with Loop
and External Power Supply

User Guide v1.00



Thank You!

You have just acquired the best easy-to-use tool
for capturing 4K video streams of uncompressed video
with audio for your computer.

**Easy, No Drivers,
No Setup! Versatile!
Compatible with all Apps!**

4KX-PLUS CONVERTER

P/N: INO-4KXPLUS

PRODUCT HIGHLIGHTS

- EASY! No drivers required.
- Compatible with all motherboards and chipsets.
- Supports Windows, macOS and Linux.
- Supports multiple devices on the same PC.
- DirectShow, AVFoundation and V4L2 compatible.
- Compatible with both USB 3.0 (uncompressed) and USB 2.0 (high-quality MJPEG).
- Powered via external power supply for continuous operation of HDMI loop out.
- Audio mixing capability.
- Professional grade full-metal enclosure.

OVERVIEW

The 4KX-PLUS adds great functionality to our already very successful product the 4KX: an external power supply integration that provides a permanent enabled HDMI loop out, even if the USB connector is not connected.



Included in the box:

- 1 x 4KX-PLUS.
- 1 x 3ft USB 3.0 cable A male to B male.
- 1 x 6ft USB 2.0 A male to mini-B 5-pin male hi-speed cable (for power).
- 1 x AC/DC 5V USB A power supply with AC interchangeable plugs (US, CE, AUS, UK).
- 1 x welcome card.

CISCO INTEGRATION

Proven technology device that captures uncompressed HDMI video and audio from Cisco CODEC, then converts it to USB 3.0 for third-party laptops.



- Direct integration of Cisco room equipment (camera, audio and screen).
- Solves the interoperability issue.
- Optimizes your assets and avoids additional license fees for Cloud Video Interop (CVI) service and user management.
- No driver required.
- Compatible with Windows, macOS and Linux laptops.
- Easily programmed macros in your Webex room device. Native Webex implementation available in Q2 CY2022.
- Intuitive interface on Webex Touch 10 or Webex Navigator.

CISCO CONNECTION DIAGRAM



DEVICE CONNECTORS



SPECIFICATIONS

HDMI Input	
Connector	1 x HDMI 1.4a
Video Resolutions	4K UHD (3840/4096x2160), 1440p, 1080p, 720p, 1080i, 480p, 576p, 1920x1200, 1280x1024, 1280x960, 1280x800, 1024x768, 800x600, 640x480
Frame Rates	60, 59.94, 50, 30, 29.97, 25, 24, 23.98 Hz for all resolutions, except 4K = 30Hz max.
Color Space	RGB, YCbCr, 4:4:4, and 4:2:2 (4K=RGB)
Sampling Rate	297 MHz
Embedded Audio	Ch 1&2 48kHz LPCM
HDCP Copy Protection	INOGENI will not decrypt BD/DVD movies, satellite/cable receivers or other HDCP encrypted sources.

HDMI Output	
Connector	1 x HDMI 1.4a
Video Resolutions	Same as HDMI input
Frame Rates	Same as HDMI input
Color Space	Same as HDMI input
Sampling Rate	Same as HDMI input
Embedded Audio	Same as HDMI input
HDCP Copy Protection	Same as HDMI input

USB	
Connector	1 x USB type B (USB 3.0/2.0)
Video Format (USB3)	Uncompressed, YUY2 4:2:2 or NV12/I420 4:2:0 (configurable)
Video Format (USB2)	MJPEG
Video Resolutions	4K UHD (3840/4096x2160), 1440p, 1080p, 720p, 1080i, 480p, 576p, 1920x1200, 1280x1024, 1280x960, 1280x800, 1024x768, 800x600, 640x480
Video Scaler	Automatic hardware based
Color Space Conversion	Automatic hardware based
Sampling Conversion	Automatic hardware based
Frame Rate Conversion	Automatic hardware based

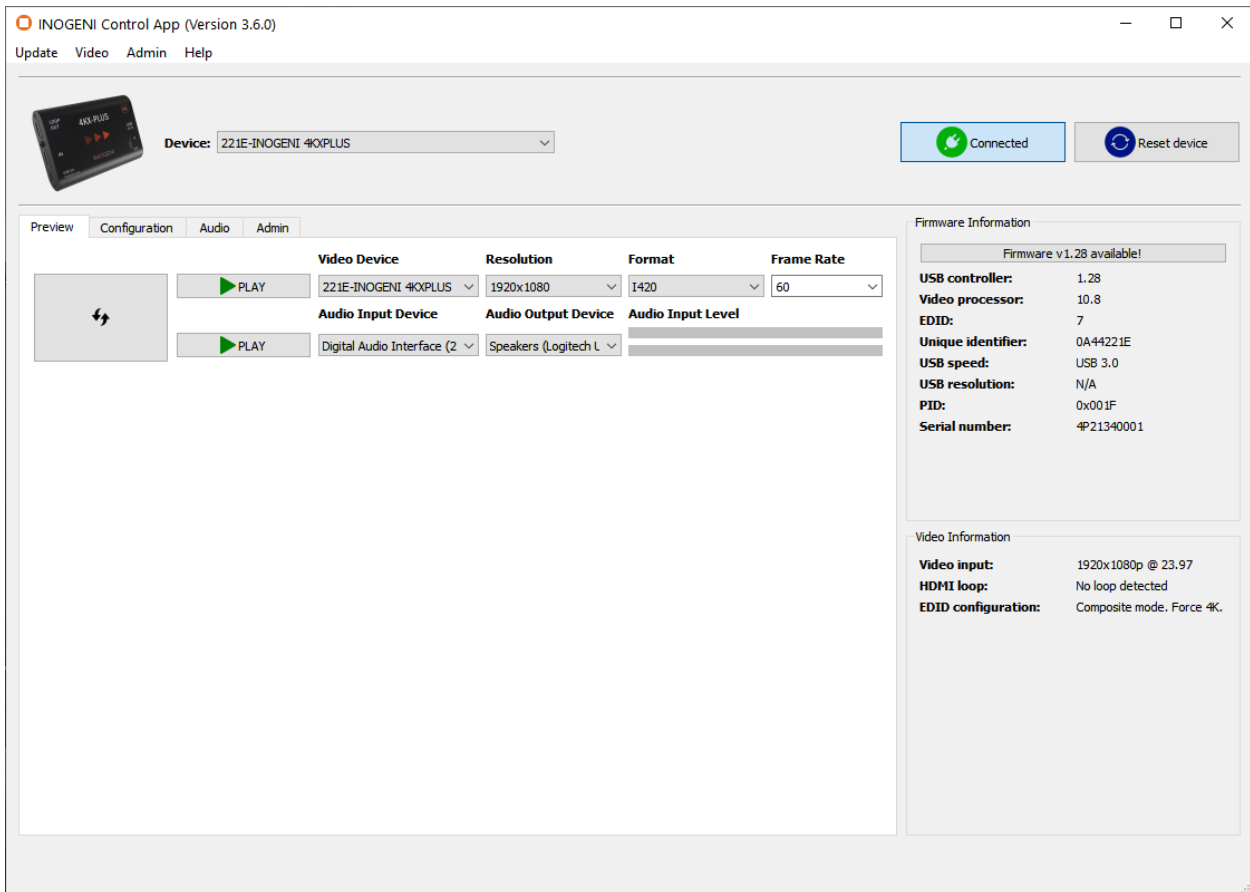
Audio	
Audio Input	1 x 3.5mm analog audio jack (MIC or LINE level)
Audio Output	1 x 3.5mm analog audio jack (LINE level)
Mixing Functionality	HDMI audio and analog audio inputs are mixed over the USB input interface. USB audio output and HDMI audio input are mixed over the analog audio output. Use Control App in order to manage audio layout.

Compatibility	
Cisco Webex Compatible	<p>Easily programed macros in your Webex room device.</p> <p>Native Webex implementation available in Q1CY2022.</p> <p>Intuitive interface on Webex Touch 10 or Webex Navigator.</p> <p>Macro and native</p> <ul style="list-style-type: none"> Webex Room Kit Webex Room Kit Plus Webex Room Kit Pro Webex Room 55 Webex Room 70 Webex Room Panorama <p>Macro only</p> <ul style="list-style-type: none"> Cisco MX700 Cisco MX800 Cisco SX80
Operating System	<p>NO driver installation necessary</p> <p>Windows 7 and above (32/64-bit)</p> <p>Mac OSX 10.10 and above</p> <p>Linux (kernel v2.6.38) and above</p>
Host Requirements	Recommended USB 3.0 (uncompressed video) or USB 2.0 (high-quality MJPEG)
Cameras Supported	Cameras with an HDMI output (HDCP decryption NOT supported)
Software Compatibility	UVC-compliant. Runs with all software compatible with DirectShow/MediaFoundation, V4L2, QuickTime and AVFoundation.
Dimensions & Weight	99mm x 70mm x 24mm, 129g

Operating Temperature	0° to 45° C (32° to 113° F)
Storage Temperature	-40° to 105° C (-40° to 221° F)
Relative Humidity	0% to 90% non-condensing
Power	Powered by USB (5V, 900mA) or by external power supply (5V, 900mA).
UPC Code	040232378935
Origin	Canada
Warranty	2 years

INOGENI CONTROL APP

The INOGENI Control App allows you to control and monitor video sources.



The device has its own application for control using the USB HID interface.

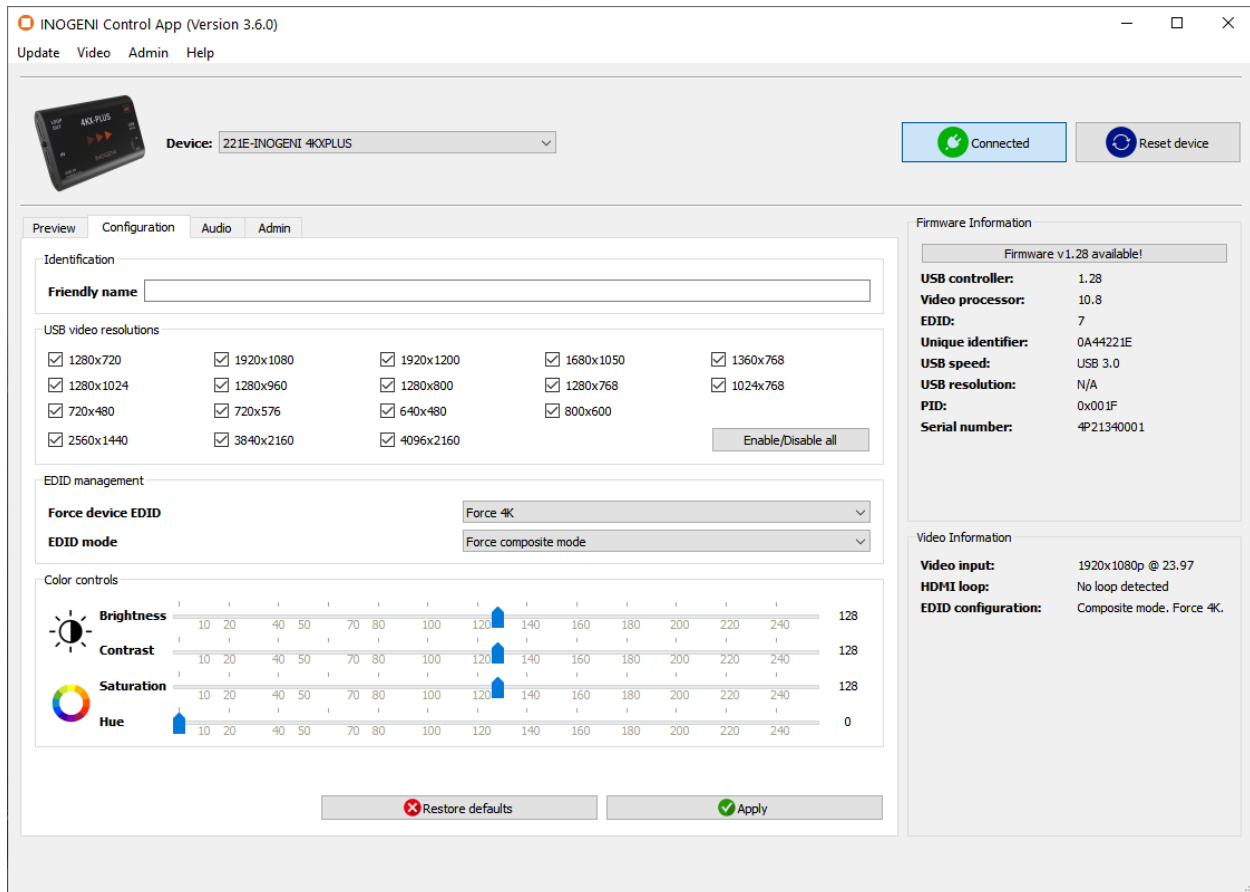
You can also monitor the firmware versions installed on the device and the status of the USB and HDMI inputs.

You can update your device to the latest firmware using the Update menu. The C++ source code of this application is available on demand.

Visit the [Software Update](#) web page for more details.

CONFIGURATION

The INOGENI Control App allows you to configure internal settings as shown here.



Identification:

You can set the device name, which is the name that will appear on your computer. For Windows users, you will need to delete the INOGENI composite device inside the device manager after you set the name in order to update it. If you connect the device to another computer, the new name will be taken into account.

USB Video Resolutions:

Used to enable/disable each USB resolution.

EDID Management:

The “Force device EDID section” is used to add/remove the EDID’s 4K resolution.

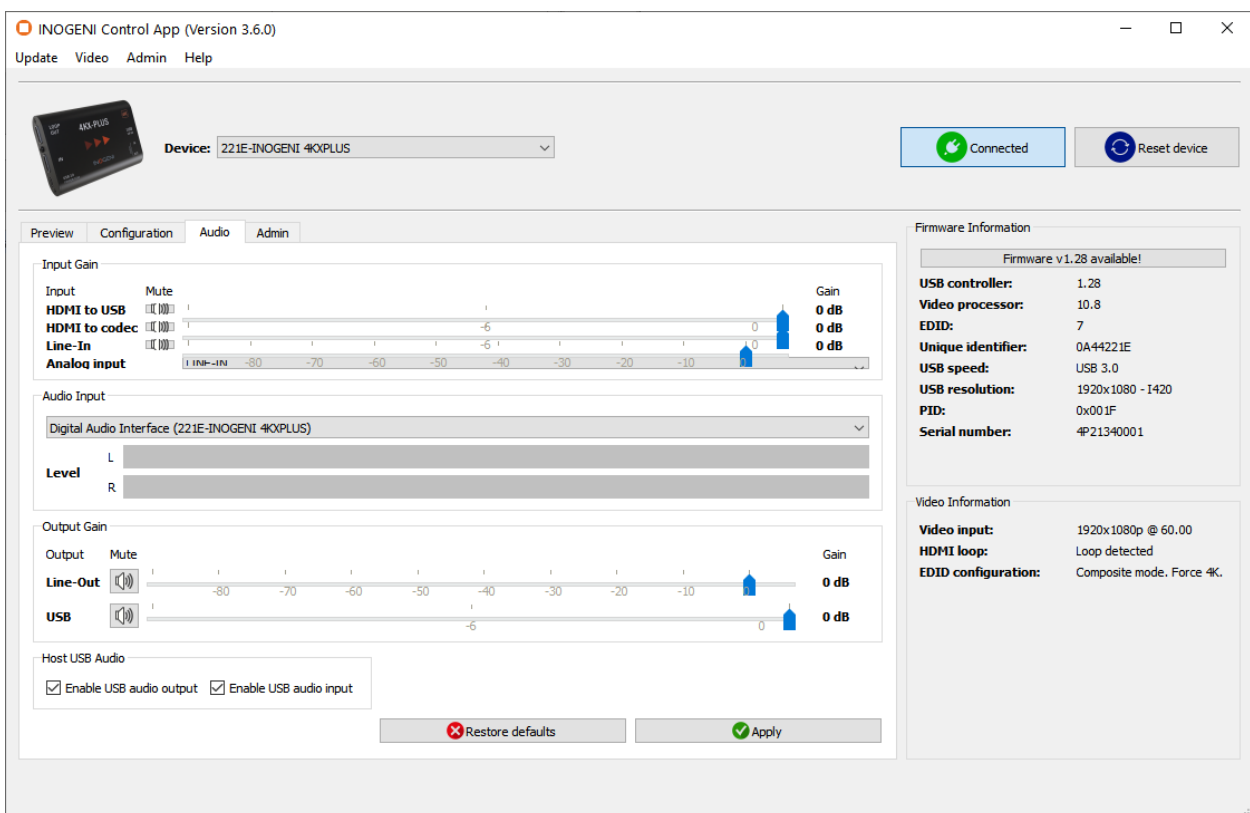
With the “EDID mode” section, the HDMI input can replicate the EDID information from the monitor connected on the HDMI output if the “Force EDID monitor” mode is selected. It will expose only the HDMI resolutions supported by the monitor connected on the HDMI output.

Color Controls: Used to control the brightness, contrast and saturation. It will only affect the video grabbed on the USB, not the HDMI loop out.

For all of these settings, you need to apply them in order to save them onboard. You can restore settings by clicking on the “Restore defaults” button.

AUDIO CONTROL

The 4KX-PLUS allows you to control gain at different levels with the AUDIO panel. You can click the “Apply” button to keep your configuration at each bootup. You can also restore the default configuration by clicking the “Restore defaults” button.



Input Gain: Control of audio gain for HDMI and Line-In.

Output Gain: Control of audio gain for USB and Line-Out.

Host USB Audio: Enable/disable USB audio input and output detected on the computer.

SUPPORT

Engineered by video professionals, for video professionals, the 4KX-PLUS is your most compatible USB 3.0 device. You have access to INOGENI expertise at your fingertips:

- Expert Technical Support team at support@inogeni.com for immediate assistance or answers to any technical questions about our products.
- You can visit our list of compatible [USB 2.0 cameras](#) to see which one fits the device.
- Extensive Knowledge Base to learn from other customers' experiences.

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