

NP-CPHD2

NP-CPHD2 is a high-quality capture device which is designed for HDMI video capture applications. It supports up to 1 channel of Ultra high-definition, 4K@60 video from HDMI source and selectable 3.5mm audio source. There is no need to install a special driver to PC and external power is unnecessary by USB bus power.

■ Specification

		NP-CPHD2
Video/Audio Input	HDMI	1 input HDMI/DVI 1.0 TMDS single link TMDS clock: Up to 300 MHz, TMDS data rate: Up to 18 Gbps Deep Color *HDCP is not supported 640x480@60 to 2560x1600@60 Reduced Blanking 480i, 576i to 3840x2160@ 24/25/30/50/59.94/60 (4:4:4), 3840x2160@ 50/59.94/60 (4:2:0) Color Depth: 24/30/36 bits *For all supported video signals, see the table below.
	Analog audio	1 input Stereo L/R Input impedance: 10 kΩ unbalanced Reference level: -10 dBu, Max. input level: +10 dBu Connector: 3.5 mm Stereo Audio jack Maximum distance: 5 m ¹
Video/Audio Output	USB	1 output USB 3.2 Gen1x1 / USB 2.0 Transfer data rate: 5 Gbps [USB 3.2 Gen1x1] 640x480p@25/30/50/60, 720x480p@25/30/50/60, 720x576p@25/30/50/60, 1280x720p@25/30/50/60, 1920x1080p@25/30/50/60/100/120, 2560x1440p@25/30/50/60, 3840x2160p@25/30 [USB 2.0] 640x480p@60, 720x480p@60, 720x576p@50, 1280x720p@30 *For all supported video signals, see the table below.
		USB Video Class USB Audio Class Stereo / 16 bit / 48 kHz Available Video format: YUY2、NV12、P010、RGB24 (USB 3.2 Gen1x1) YUY2、NV12 (USB 2.0) Connector: USB Type-C (24 pin) ² Maximum distance: 2 m ¹
General	OS	Windows 10 / Windows 11, macOS ³
	Power	Supply 5V from connected Host devices
	Power consumption	1.7 W
	Dimensions	36.3 (W) × 17.1 (H) × 87.3 (D) mm
	Weight	91 g
	Temperature	Operating: 0°C ~ +40°C, Storage: -20°C ~ +60°C
	Humidity	20% ~ 90%
Accessories		USB 3.2 Gen1x1 Cable (Type-A·Male - Type-C·Male) 2m Audio Cable (3.5 mm Stereo-mini-RCA pin-jack x2) 10cm

The maximum specified distances may not be achievable with some device combinations, cabling method, or other manufacturer's cable. For the same reasons, video signal disturbances or interruptions may occur, even if signals are within the specified distance (cable length) parameters. The maximum cable length varies depending on the connected devices. The specifications have been qualified under following conditions:

- HDMI : When IDK's 18 Gbps supported cable was used and signal of 3840x2160@60 24 bits was transmitted.
- USB : When attached USB cable was used, and USB 3.2 Gen1x1 signal was transmitted.

¹ USB Power Delivery & USB Alternate Mode are not supported.

² Utility software is only supported by Windows OS.

■ Front & Rear



NP-CPHD2 Supported video signals

Signal	Resolution	Frame Rate [Hz]	Pixel Clock [MHz]	Color Depth [bits]	INPUT
					HDMI
640x480@60	640x480	59.94	25.18	24 / 30 / 36	○
800x600@60	800x600	60.32	40.00	24 / 30 / 36	○
1024x768 @60	1024x768	60.00	65.00	24 / 30 / 36	○
1280x768 @60	1280x768	59.87	79.50	24 / 30 / 36	○
1280x800 @60	1280x800	59.84	83.50	24 / 30 / 36	○
1280x960 @60	1280x960	60.00	108.00	24 / 30 / 36	○
1280x1024 @60	1280x1024	60.02	108.00	24 / 30 / 36	○
1360x768 @60	1360x768	60.02	85.50	24 / 30 / 36	○
1366x768 @60	1366x768	59.79	85.50	24 / 30 / 36	○
1400x1050 @60	1400x1050	59.98	121.75	24 / 30 / 36	○
1440x900 @60	1440x900	59.89	106.50	24 / 30 / 36	○
1600x900 @60	1600x900	60.00	118.25	24 / 30 / 36	○
1600x1200 @60	1600x1200	60.00	162.00	24 / 30 / 36	○
1680x1050 @60	1680x1050	59.95	146.25	24 / 30 / 36	○
1920x1080 @60 RB	1920x1080	59.93	138.50	24 / 30 / 36	○
1920x1200 @60 RB	1920x1200	59.95	154.00	24 / 30 / 36	○
2048x1152 @60 RB	2048x1152	60.00	162.00	24 / 30 / 36	○
2560x1440 @60 RB	2560x1440	59.95	241.50	24 / 30 / 36	○
2560x1600 @60 RB	2560x1600	59.97	268.50	24 / 30 / 36	○
480i	720x480	59.94	27.00	24 / 30 / 36	○
480p	720x480	59.94	27.00	24 / 30 / 36	○
576i	720x576	50.00	27.00	24 / 30 / 36	○
576p	720x576	50.00	27.00	24 / 30 / 36	○
720p @50	1280x720	50.00	74.25	24 / 30 / 36	○
720p @59.94	1280x720	59.94	74.18	24 / 30 / 36	○
720p @60	1280x720	60.00	74.25	24 / 30 / 36	○
1080i @50	1920x1080	50.00	74.25	24 / 30 / 36	○
1080i @59.94	1920x1080	59.94	74.18	24 / 30 / 36	○
1080i @60	1920x1080	60.00	74.25	24 / 30 / 36	○
1080p @50	1920x1080	50.00	148.50	24 / 30 / 36	○
1080p @59.94	1920x1080	59.94	148.35	24 / 30 / 36	○
1080p @60	1920x1080	60.00	148.50	24 / 30 / 36	○
3840x2160 @24	3840x2160	24.00	297.00	24 / 30 / 36	○
3840x2160 @25	3840x2160	25.00	297.00	24 / 30 / 36	○
3840x2160 @30	3840x2160	30.00	297.00	24 / 30 / 36	○
3840x2160 @50	3840x2160	50.00	594.00	24 / 30 / 36*	○
3840x2160 @59.94	3840x2160	59.94	593.41	24 / 30 / 36*	○
3840x2160 @60	3840x2160	60.00	594.00	24 / 30 / 36*	○
4096x2160 @24	4096x2160	24.00	297.00	24 / 30 / 36	-
4096x2160 @25	4096x2160	25.00	297.00	24 / 30 / 36	-
4096x2160 @30	4096x2160	30.00	297.00	24 / 30 / 36	-
4096x2160 @50	4096x2160	50.00	594.00	24 / 30 / 36*	-
4096x2160 @59.94	4096x2160	59.94	593.41	24 / 30 / 36*	-
4096x2160 @60	4096x2160	60.00	594.00	24 / 30 / 36*	-

RB: Reduced Blanking

*For RGB/YCbCr 4:4:4, only 24 bit is supported.

For best results, please confirm that the source device(s) video output can be configured to match the listed formats above. For questions regarding other input video signals, please contact your IDK representative.

Resolution ^{*1}	Frame Rate [fps] ^{*1}	Color Depth [bits] ^{*1}	Color Format ^{*1}	OUTPUT	
				USB Type-C	
				USB 3.2 Gen1x1 ^{*2}	USB 2.0 ^{*3}
640x480	25/30/50	24	YUY2/NV12/RGB24	○	-
640x480	60	24	YUY2/NV12/RGB24	○	○ ^{*4}
720x480	25/30/50	24	YUY2/NV12/RGB24	○	-
720x480	60	24	YUY2/NV12/RGB24	○	○ ^{*4}
720x576	25/30/60	24	YUY2/NV12/RGB24	○	-
720x576	50	24	YUY2/NV12/RGB24	○	○ ^{*4}
1280x720	25/50/60	24	YUY2/NV12/P010/RGB24	○	-
1280x720	30	24	YUY2/NV12/P010/RGB24	○	○ ^{*5}
1920x1080	25/30	24	YUY2/NV12/P010/RGB24	○	-
1920x1080	50/60	24	YUY2/NV12/P010	○	-
1920x1080	100/120	24	NV12	○	-
2560x1440 ^{*6}	25/30/50/60	24	NV12	○	-
3840x2160 ^{*7}	25/30	24	NV12	○	-

YUY2/NV12: Color formats meeting the UVC specification; equivalent to YCbCr 4:2:2/4:2:0, respectively.

^{*1} Part of contents may not be displayed depending on the capture software.

^{*2} Video signal that can be output if the USB-C output is connected to a USB 3.2 Gen1 connector.

^{*3} Video signal that can be output if the USB-C output is connected to a USB 2.0 connector.

^{*4} When transmission via USB 2.0, only YUY2 & NV12 are supported.

^{*5} When transmission via USB 2.0, only NV12 is supported.

^{*6} 2560x1440 or 3840x2160 input video is needed.

^{*7} 3840x2160 input video is needed.