4K@60 and HDCP2.2 supported HDBaseT HDMI Wall-Plate transmitter

HDC-TH100WPJ

The IDK HDC-TH100WPJ is a wall-mountable transmitter for a long-haul transmission of HDMI signal over one single twisted pair cable.
The image quality will not be deteriorated, since video signal is transmitted at a resolution up to 4K@60 without compression.
Input video signal is converted to HDBaseT signal and sent up to 328 ft. (100 m).

PoH (Power over HDBaseT) is supported. Connecting a receiver supporting PoH power supply (PSE) function eliminates the need for a local power supply.

■ Specification

Item		Description
Input		1 input HDMI (*1) / DVI 1.0 TMDS signal link HDCP 1.4 / 2.2 (Pass through) (*2) CEC (Pass through) Connector: Female HDMI Type A (19-pin) (*3)
Output		1 output HDBaseT PoH power supplied (PD) (equivalent to IEEE802.3af) Connector: RJ-45
Format		VGA to 4K (*4) 480i / 480p / 576i / 576p / 720p / 1080i / 1080p / 4K (*4)
Color depth		24 bit, 30 bit, 36 bit Deep Color (*5)
Dot clock		25 MHz to 600 MHz
TMDS clock		25 MHz to 340 MHz
TMDS data rate		0.75 Gbps to 10.2 Gbps
Plug & Play		Pass through
Digital audio input / output		Multi-channel LPCM up to 8 channels Sampling frequency: 32 kHz to 192 kHz, Sample size: 16 bit to 24 bit
Cable for extension	Cable (*6)	CAT.5E HDC, Cat5e UTP / STP, Cat6 UTP / STP
	Maximum extension distance (*7)	328 ft. (100 m) (For 4K format, CAT.5E HDC, Cat5e STP, or Cat6 STP cable is used) 492 ft. (150 m) (Long reach mode is used)
General	Power	PoH power supplied (PD) (equivalent to IEEE 802.3af) (*8), Connector: RJ-45 or DC 12 V 0.2 A, Connector: 2-pin terminal block (*9)
	Power consumption	PoH power supplied (PD): About 4 Watts DC 12 V power supplied: About 3 Watts
	Dimensions	3.7 (W) × 4.3 (H) × 1.9 (D)" (94 (W) × 110 (H) × 48.8 (D) mm) (Excluding connectors and the like)
	Weight	0.9 lbs. (0.4 kg)
	Temperature	Operating: 32°F to 104°F (0°C to +40°C) Storage: -4°F to +176°F (-20°C to +80°C)
	Humidity	Operating / Storage: 20% to 90% (Non Condensing)
	Switch Box	DS4912 (Panasonic) DF32221K (Panasonic)
	Mounting Bracket	WN3997 (Panasonic)
	Wallplate	WN6006 (Panasonic) WN7606K (Panasonic) NKP-3UF-2 (Jimbo)

*1 ARC and HEC are not supported.
*2 To transmit those signals, use an IDK's twisted pair cable extender supporting DVI signals.
If DVI signals with HDCP is sent from the source device, video may not be output to the sink device. please check the operation beforehand.
*3 Use 16 ft. (5 m) or shorter HDMI cables.
For 4K format, use an 18-Gbps high speed cable.
*4 For 4K format, 24 Hz / 25 Hz / 30 Hz / 50 Hz (4:2:0) / 60 Hz (4:2:0) are supported.
*5 For 4K format, the following color depths are supported.
・24 Hz / 25 Hz / 30 Hz : 24 bit (RGB, YCbCr 4:4:4)
: 24 bit, 30 bit, 36 bit (YCbCr 4:2:2)
・50 Hz / 59.94 Hz / 60 Hz: 24 bit (YCbCr 4:2:0)
*6 T568A or T568B straight. The CAT.5E HDC cable is developed by IDK and recommended by HDBaseT alliance.
*7 The maximum extension distance was obtained when IDK's CAT.5E HDC cable was used. The distance may not be extended with some device combinations, cabling method, or other manufacturer's cable. Video may be disturbed or may not be output even if signals are within the range mentioned above. Operations may not be stable with some LCD devices; please check the operation beforehand or contact us.
The maximum extension distance is the shorter distance of connected HDBaseT product or sink device's maximum extension distance.
For Long reach mode, use IDK's twisted pair cable products that supports 328 ft. (100 m), and up to resolutions 1080p (24 bit) or less are supported.
*8 For receiving power, please use a twisted pair cable receiver that supports PoH power supply (IEEE 802.3af) or PoH injector. For providing power, use an AWG 24 or thicker twisted pair cable.
*9 PoH (powered) cannot be used together with DC 12 V power supply.

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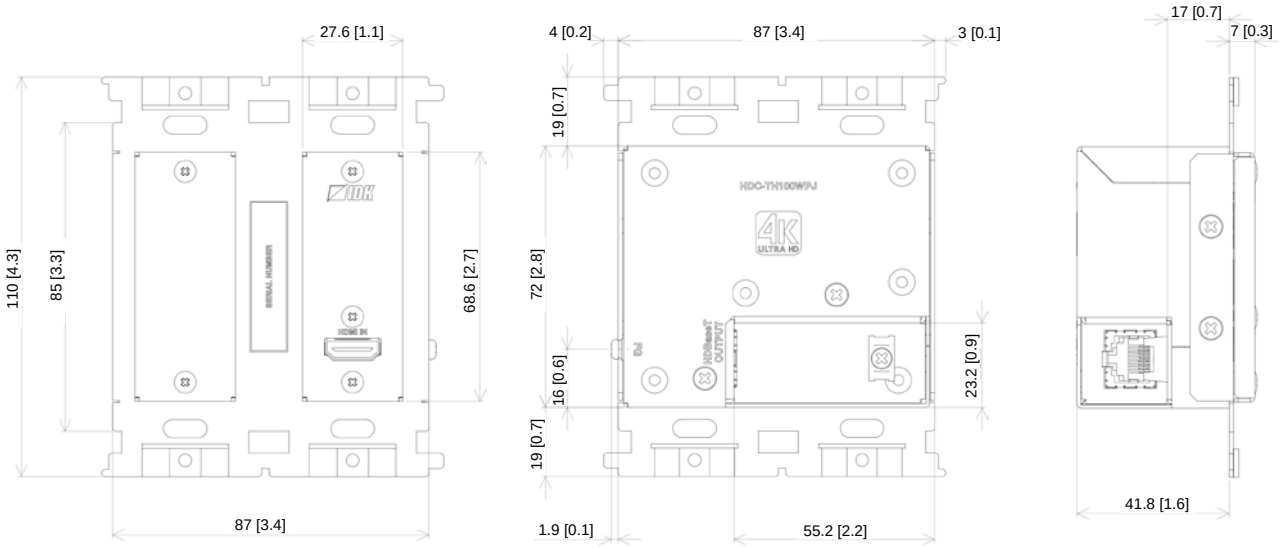
■ **Front & Rear Panels**



Front Rear Side

Unit: mm [inch]

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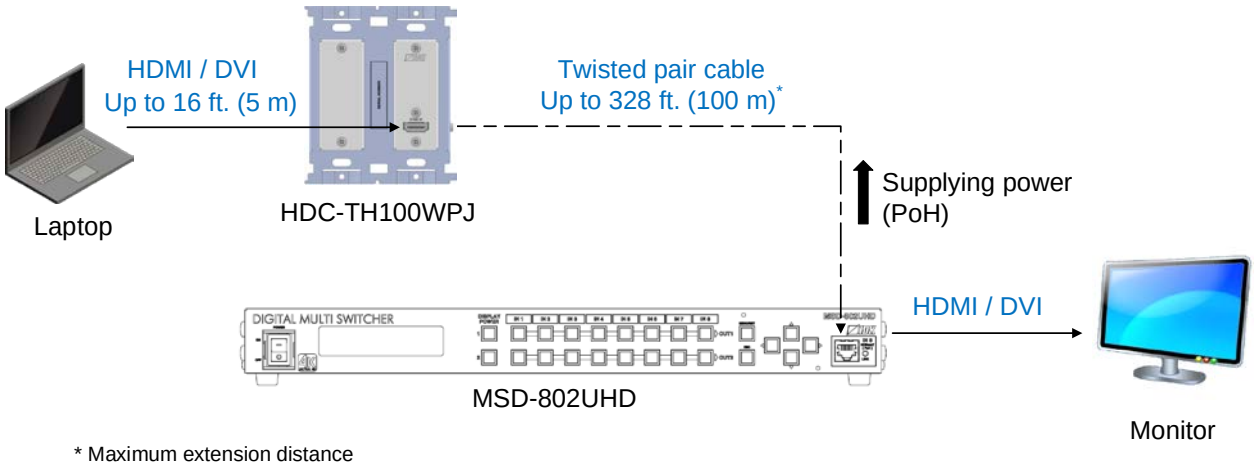
■ Application Example



* Maximum extension distance
Up to 328 ft. (100 m) : 4K@60
Up to 492 ft. (150 m) :1080p (24 bit) in Long reach mode and with IDK's HDBaseT products supporting 328 ft. (100 m)

[Features]

■ Video

- Up to 4K@60
- HDCP 1.4 / 2.2 (Pass through)
- Up to 328 ft. (100 m) over CAT.5E HDC / Cat5e STP / Cat6 STP cable (4K@60)
- Cat5e UTP cable transmission*1
- Up to 328 ft. (100 m) over a Cat6 UTP cable*2
- Long reach mode: up to 492 ft. (150 m), 1080p (24 bit) or less, with IDK's HDBaseT products supporting 328 ft. (100 m)*3
- No substantive extension delay: 10 μs or less / 328 ft. (100m)

■ Others

- CEC (Pass through)
- PoH power supplied (PD) (HDBaseT output)

*1 If exceeding 164ft. (50 m), CAT.5E HDC, Cat5e STP, and Cat6 UTP / STP cables are recommended.
*2 If the 4K format exceeds 230 ft. (70 m), CAT.5E HDC, Cat5e STP, and Cat6 STP cables are recommended.
*3 If exceeding 328 ft. (100 m) in Long reach mode, CAT.5E HDC, Cat5e STP, and Cat6 STP cables are recommended.

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