

HDC-H100-D



with your vision, Always.

4K@60 and HDCP2.2 supported HDMI Twisted Pair Extender

The IDK HDC-TH100-D / HDC-RH100-D are extender 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. You can also control external devices that are connected to the HDC-TH100-D / HDC-RH100-D over RS-232C and LAN by registering external control commands. Input video signal is converted to HDBaseT signal and sent up to 100 m.

FRONT & REAR PANEL



FEATURES

- Video:**
- Up to 4K@60
 - HDCP 1.4 / 2.2 (Pass through)
 - Up to 100 m (4K@60) over CAT.5E HDC cable / Cat5e STP / Cat6 STP
 - Cat5e UTP can be used*1
 - Up to 100 m over Cat6 UTP cable*2
 - Up to 150 m (1080p (24 bits) or less) with device supporting Long Reach Mode*3
 - No substantive extension delay: 10 μ s or less / 100m

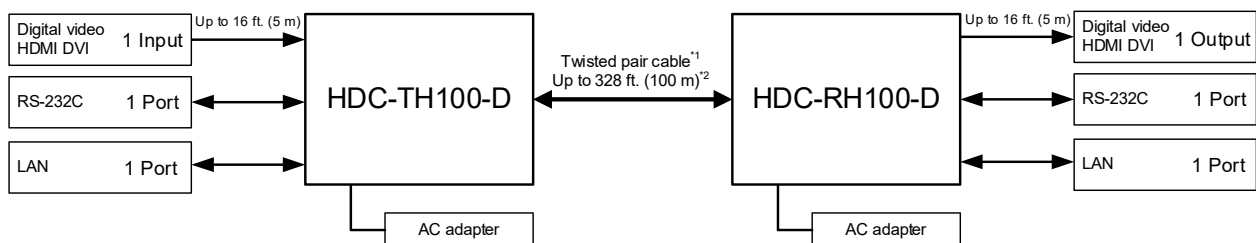
- Others:**
- CEC (Pass through)
 - HDMI signal can be extended over a twisted pair cable
 - AC adapter with locking mechanism
 - Up to 4 units can be mounted into 1U rack mount

*1 For transmission distance longer than 50 m, CAT.5E HDC, Cat5e STP, and Cat6 UTP / STP cables are recommended.

*2 For 4K format longer than 230 ft. (70 m), CAT.5E HDC / Cat5e STP / Cat6 STP cables are recommended.

*3 For Long reach mode 328 ft. (100 m) or longer (up to 150 m), CAT.5E HDC / Cat5e STP / Cat6 STP cables are recommended. Use HDC-TH100-D/HDC-RH100-D/IDK's HDBaseT products that support 100 m

CONNECTION DIAGRAM



*1 For Transmission distance longer than 164 ft. (50 m), CAT.5E HDC, Cat5e STP and Cat6 UTP / STP cables are recommended. For 4K format longer than 230 ft. (70 m), CAT.5E HDC / Cat5e STP / Cat6 STP cables are recommended.

For Long reach model longer than 328 ft. (100 m), CAT.5E HDC / Cat5e STP / Cat6 STP cables are recommended.

*2 Maximum extension distance:

The mentioned maximum value was obtained when IDK's CAT.5E HDC cable was used.

The distance can be up to 492 ft. (150 m) with Long reach mode supporting 1080p (24 bit). For Long reach mode, use HDC-TH100-D/HDC-RH100-D/IDK's HDBaseT products that support 328 ft. (100 m) .



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SPECIFICATIONS

| Item | HDC-TH100-D (Transmitter) | HDC-RH100-D (Receiver) |
|------------------------------|---|--|
| 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) | 1 input HDBaseT Connector: RJ-45 |
| Output | 1 output HDBaseT Connector: RJ-45 | 1 output 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) |
| 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 linear PCM 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 cable |
| | 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) |
| External control | RS-232C | 1 port / male D-sub (9 pin), full duplex, up to 115.2 kbps |
| | LAN | 1 port / RJ-45 10Base-T / 100Base-TX (Auto Negotiation), Auto MDI / MDI-X |
| General | AC Adapter | Input: 100 - 240 VAC \pm 10%, 50 Hz / 60 Hz \pm 3 Hz Output: DC 5 V 2 A (AC adapter is supplied) |
| | Power consumption | About 4 Watts |
| | Dimensions | 4.2 (W) \times 1.1 (H) \times 3.9 (D)" (106 (W) \times 27.5 (H) \times 100 (D) mm) (EIA quarter rack wide) (Excluding connectors and the like) |
| | Weight | 0.4 lbs. (0.2 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) |

*1 HEC and ARC are not supported.

*2 DVI signals protected by HDCP are not supported.

*3 To transmit those signals, use an IDK's twisted pair cable extender supporting DVI signals.

*4 Use 16 ft. (5 m) or shorter HDMI cables.

For 4K format, use an 18-Gbps high speed cable.

*5 For 4K format, 24 Hz / 25 Hz / 30 Hz / 50 Hz (4:2:0) / 59.94 Hz (4:2:0) / 60 Hz (4:2:0) are supported.

*6 For 4K format, the following color depths are supported.

• 24 Hz / 25 Hz / 30 Hz: 4 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)

*7 T568A or T568B straight. The CAT.5E HDC cable is developed by IDK and recommended by HDBaseT alliance.

*8 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.