

AVG-PWEX40-KVMW011

4K UHD In-wall Transmitter with USB host and CEC Triggering & HDBaseT 2.0 Receiver with USB and Audio De-embedding



This AVönic kit is an HDBaseT 2.0 transmitter and receiver pair that supports long distance transport of HDMI, USB-C and high-speed USB 2.0 signals up to 100m using a Cat X cable. It is 4K compatible with a max resolution of 4K@60Hz/4:2:0 8bit deep color. The PoH feature enables the transmitter to be powered by an HDBT receiver.

This kit is ideal for situations where USB must be extended alongside HDMI for display interactivity for items such as interactive whiteboards or projectors.

Features

- AVon-Link technology simplifies audio & video routing and enhances system flexibility and ease of use.
- 1x USB-C and 2x HDMI inputs, support automatic/manual switching.
- Via a Cat 6/6a/7 cable, transmits 4K@60Hz (YUV 4:2:0 color sub-sampling) and 1080P@60Hz signal up to 100m
- Via a Cat 5e cable, transmits 4K@60Hz (YUV 4:2:0 color sub-sampling) signal up to 100m and 1080P@60Hz signal up to 90m
- High-speed USB 2.0, pass through over HDBaseT up to 100m
- Provides four USB Device ports with high power, for supporting higher power USB devices connected
- One-way analog audio pass-through from transmitter to receiver
- Supports audio de-embedding from the HDMI output
- PoH capable – transmitter can be powered by connected receiver
- Supports firmware upgrade

Specifications

Transmitter

Technical	
Video Input	2 x HDMI; 1 x USB-C
Input Video Signal	HDMI (4K@60Hz YUV 4:2:0, HDCP 2.2), USB-C DP Alt mode
Video Output	1 x HDBT OUT (RJ-45)

Output Video Signal	HDBT 2.0
Input/Output Resolutions Supported	<p>HDMI: VESA: 800x6008, 1024x7688, 1280x7688, 1280x8008, 1360x7688, 1366x7688, 1440x9008, 1600x9008, 1600x12008, 1680x10508, 1920x12008</p> <p>SMPTTE: 1280x720P1,2,3,4,5,6,7,8, 1920x1080I6,8, 1920x1080P1,2,3,4,5,6,7,8, 3840x21602,3,5,6,8, 4096x21602,3,5,6,8</p> <p>USB-C: Same as above</p>

Technical	
	<p>1 = at 23.98 Hz, 2 = at 24 Hz, 3 = at 25 Hz, 4 = at 29.97 Hz, 5 = at 30 Hz, 6 = at 50 Hz, 7 = at 59.94 Hz, 8 = 60 Hz</p> <p>Note: 4096x2160/3840x2160@50Hz/60Hz is based on chroma sub-sampling 4:2:0 8-bit only.</p>
Audio Input	<p>1 x HDMI; 1 x USB-C; 1 x Audio In (Unbalanced stereo 3.5mm)</p>
Audio Format	<ul style="list-style-type: none"> HDMI/USB-C: Supports multi-channel audio formats, including PCM 2.0/5.1/7.1, Dolby TrueHD, Dolby Atmos, DTS-HD Master Audio and DTS:X <p>Audio In: Stereo</p>
USB Pass-through	USB 2.0
USB Port Type	USB-B
Maximum Pixel Clock	340MHz
Maximum Data Rate	10.2Gbps
Control Method	Auto switching, front panel buttons, API commands

General	
Operating Temperature	0°C to 45°C (32°F to 113°F)
Storage Temperature	-20°C to 70°C (-4°F to 158°F)
Humidity	10% to 90%, non-condensing
ESD Protection	Human-body Model: ±8kV (Air-gap discharge)/ ±4kV (Contact discharge)
Power Supply	PoH, powered by receiver; or local power supply through the 12V phoenix connector
Power Consumption (Max)	7.8W
Device Dimension (W x H x D)	89mm x 38.4mm x 105.6mm/3.5" x 1.51" x 4.16"
Product Weight	0.3kg/0.66lb

Receiver

Technical	
Video Input	1 x HDBT IN (RJ-45)
Input Video Signal	HDBT 2.0
Video Output	1 x HDMI OUT
Output Video Signal	HDMI (4K@60Hz YUV 4:2:0), HDCP 2.2

Input/Output Resolutions Supported	<p>VESA: 800x6008, 1024x7688, 1024x7688, 1280x7688, 1280x8008, 1360x7688, 1366x7688, 1440x9008, 1600x9008, 1600x12008, 1680x10508, 1920x12008</p> <p>SMPT: 1280x720P1,2,3,4,5,6,7,8, 1920x1080I6,8, 1920x1080P1,2,3,4,5,6,7,8, 3840x21602,3,5,6,8, 4096x21602,3,5,6,8 1 = at 23.98 Hz, 2 = at 24 Hz, 3 = at 25 Hz, 4 = at 29.97 Hz, 5 = at 30 Hz, 6 = at 50 Hz, 7 = at 59.94 Hz, 8 = at 60 Hz</p> <p>Note: 4096x2160/3840x2160@50Hz/60Hz is based on chroma sub-sampling 4:2:0 8-bit only.</p>
Input Video Level	0.5~1.0V p-p
Maximum Pixel Clock	340MHz
Audio Format	<ul style="list-style-type: none"> • HDMI Out: Supports multi-channel audio formats, including PCM 2.0/5.1/7.1, Dolby TrueHD, Dolby Atmos, DTS-HD Master Audio and DTS:X • Audio Out: Stereo

General	
Operating Temperature	0°C to 45°C (32°F to 113°F)
Storage Temperature	-20°C to 70°C (-4°F to 158°F)
Humidity	10% to 90%, non-condensing
ESD Protection	Human-body Model: ±8kV (Air-gap discharge)/ ±4kV (Contact discharge)
Power Supply	DC 12V 3A
Power Consumption (Max)	8W (without USB)
Device Dimension (W x H x D)	210mm x 25mm x 90.2mm/8.27" x 0.98" x 3.55"
Product Weight	0.46kg/1.01lbs

Transmission Distance


Cable Type	Range	Supported Video
Cat 5e	100m/330ft	1080P@60Hz, 36bpp
	90m/197ft	1080P@60Hz, 48bpp 4K@30Hz, 4:4:4 24bpp 4K@60Hz, 4:2:0 24bpp
Cat 6/6a/7	100m/330ft	1080P@60Hz, 48bpp 4K@30Hz, 4:4:4 24bpp 4K@60Hz, 4:2:0 24bpp


Note: Straight-through category cable wired to T568B standard is recommended.



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