

PUV-1605S-TXWP

HDMI/VGA with Scaling over Single CAT5e/6/7 HDBaseT™ Wallplate Transmitter (Full 5Play™ & Single LAN up to 100m, PoH

OPERATION MANUAL



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SAFETY PRECAUTIONS

Please read all instructions before attempting to unpack, install or operate this equipment and before connecting the power supply.

Please keep the following in mind as you unpack and install this equipment:

- Always follow basic safety precautions to reduce the risk of fire, electrical shock and injury to persons.
- To prevent fire or shock hazard, do not expose the unit to rain, moisture or install this product near water.
- Never spill liquid of any kind on or into this product.
- Never push an object of any kind into this product through any openings or empty slots in the unit, as you may damage parts inside the unit.
- Do not attach the power supply cabling to building surfaces.
- Use only the supplied power supply unit (PSU). Do not use the PSU if it is damaged.
- Do not allow anything to rest on the power cabling or allow any weight to be placed upon it or any person walk on it.
- To protect the unit from overheating, do not block any vents or openings in the unit housing that provide ventilation and allow for sufficient space for air to circulate around the unit.

REVISION HISTORY

VERSION NO.	DATE	SUMMARY OF CHANGE
v1.00	20/06/2018	First release





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1. INTRODUCTION

This 4K UHD Wallplate Scaler is an HDMI/VGA switch with audio embedding and scaled HDBaseT output. The wall plate is designed for use with UK two-gang sized enclosures. This Transmitter can send high definition uncompressed audio/video along with Ethernet over a single cable up to a distance of 100 metres at 1080p@60Hz.

The HDMI input supports resolutions up to 4K@60Hz (4:4:4, 8-bit). The VGA input supports resolutions up to WUXGA (RB) and with the use of the associated 3.5mm audio input, stereo audio may be embedded as well. To provide maximum compatibility with a wide range of display types, all sources are scaled to a user-selected resolution and timing (up to 4K@30Hz) for transmission over HDBaseT.

This unit also supports automatic input selection between the HDMI and VGA inputs, with hot plug detection, enabling hands-free operation. Additionally, the unit may be powered locally or via 48V PoH (Power over HDBaseT) from a compatible HDBaseT Receiver, which allows for greater flexibility in installations. The unit is controllable via front panel controls with an OSD or RS-232 (via the RS-232 port on a compatible Receiver).

2. APPLICATIONS

- *w* Household entertainment sharing and control
- III Lecture halls, auditoriums and classroom
- Houses of worship
- Conference rooms and boardrooms
- Hotel event spaces

3. PACKAGE CONTENTS

- IXHDMI/VGA over HDBaseT Wallplate Scaler
- 1×Operation Manual





4. SYSTEM REQUIREMENTS

- HDMI source equipment such as a media player, video game console or set-top box.
- HDMI receiving equipment such as an HDTV, monitor or audio amplifier.
- *III* The use of industry standard Cat.6, Cat.6a or Cat.7 cable is highly recommended.
- *III* The use of "Premium High Speed HDMI" cable is highly recommended.

5. FEATURES

- // HDMI 2.0 and DVI 1.0 compatible
- HDCP 2.2 and HDCP 1.x compliant
- // 1 HDMI input
- I VGA input with 3.5mm mini-jack audio input
- M Supports HDMI input resolutions up to 4K@60Hz (4:4:4, 8-bit)
- **W** Supports VGA input resolutions up to WUXGA (RB)
- Simultaneous transmission of uncompressed video, audio and data over a single 100m Cat.5e/6/7 cable at 1080p and 70m at 4K
- Scaled HDBaseT output supports resolutions up to 4K@30Hz (4:4:4, 8-bit)
- M Automatic input selection with hot plug detection enabling handsfree operation
- In Unit may be powered locally or via 48V PoH (PD) from a compatible HDBaseT Receiver (PSE)
- *w* Wall plate is designed for UK two-gang sized enclosures
- *w* Front panel LEDs indicate input selection, power and link status
- Controllable via front panel controls with an OSD or RS-232 (via the RS-232 port on a compatible Receiver)

Note: The 48V PoH function is designed to receive power from compatible Receiver units only. PoH from other Receiver brands may not be compatible.



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6. OPERATION CONTROLS AND FUNCTIONS

6.1 Front Panel



- **POWER LED:** This LED will illuminate to indicate the unit is on and receiving power.
- 2 HDMI IN LED: This LED will illuminate when HDMI is the selected source.
- 3 VGA IN LED: This LED will illuminate when VGA is the selected source.

LINK LED: This LED will illuminate when both Transmitter and Receiver are connected and communicating with each other properly.

5 MENU: Press to enter the OSD menu, or to back out from menu items.

In SEL: Press to move down or adjust selections within OSD menus. When not in a menu press this button to switch between the available inputs. The LED will illuminate to indicate which source is currently selected.

- +/AUTO ADJUST: Press to move up or adjust selections within OSD menus. When not in a menu press this button to optimise the positioning of the picture (VGA sources only).
- 8 ENTER: Press to confirm a selection within the OSD or to go deeper into a menu item.
- 9 SERVICE: This slot is reserved for firmware update use only.





- **HDMI IN:** Connect to HDMI source equipment such as a media player, game console or set-top box.
- **USA IN:** Connect to VGA source equipment such as a PC or laptop.
- **AUDIO IN:** Connect to the stereo analogueue output of a device such as a CD player or PC for embedding into the HDBaseT output.
- LAN: Connect to an Ethernet supporting device or to your local network, as appropriate, to extend the network to both ends of the HDBaseT connection.
- 6.2 Rear Panel



- **DC 12V:** Connect a 12V DC power adapter to the twin terminal block and connect it to an AC wall outlet for power. (Optional, not required when powered by PoH from the Receiver.)
- 2 CAT5e/6/7 OUT: Connect to the Receiver unit with a single Cat.5e/6/7 cable for transmission of all data signals.





6.3 OSD Menu

LEVEL 1	LEVEL 2	LEVEL 3	LEVEL 4
Video	Video	HDMI	
		PC	
	Output	NATIVE	
		640×480@60	
		800×600@60	
		1024×768@60	
		1280×720@60	
		1280×768@60	
		1280×800@60	
		1280×1024@60	
		1360×768@60	
		1440×900@60	
		1400×1050@60	
		1600×1200@60	
		1680×1050@60	
		1920×1080@60	
		1920×1200@60RB	
		2048×1080@50	
		2048×1080@60	
		2560×1440@60RB	
		2560×1600@60RB	
		720×480p@60	
		720×576p@60	
		1280×720p@50	
		1280×720p@60	
		1920×1080p@24	
		1920×1080p@25	
		1920×1080p@30	





LEVEL 1	LEVEL 2	LEVEL 3	LEVEL 4
Video	Output	1920×1080p@50	
		1920×1080p@60	
		2560×1080p@50	
		2560×1080p@60	
		3840×2160p@24	
		3840×2169p@25	
		3840×2160p@30	
		4096×2160p@24	
		4096×2160p@25	
		4096×2160p@30	
	Aspect	Full	
		Best Fit	
		Pan Scan	
		Letterbox	
		Under 2	
		Under 1	
		Follow In	
		Overscan	
	HDMI HDCP	HDCP Support Off	
		Refer to Source	
		Refer to Display	
	No Signal Colour	Black	
		White	
		Blue	
		Red	
		Green	
	Blank	Off	
		On	
	Freeze	Off	
		On	





LEVEL 1	LEVEL 2	LEVEL 3	LEVEL 4
Video	Auto Setup	Auto Sync Off	Off
			30 Seconds
			60 Seconds
			3 Minutes
			5 Minutes
			10 Minutes
		Auto Switch	Off
			On
	PC Setup	PC Auto Setup	[Current Status]
		PC H Position	0 ~ 250
		PC V Position	0 ~ 250
		PC Phase	0 ~ 255
		PC Clock	0 ~ 250 (125)
		PC Reset	
Picture	Colour Gain R	0 ~ 1023 (512)	
	Colour Gain G	0 ~ 1023 (512)	
	Colour Gain B	0 ~ 1023 (512)	
	Colour Offset R	0 ~ 1023 (512)	
	Colour Offset G	0 ~ 1023 (512)	
	Colour Offset B	0 ~ 1023 (512)	
	Brightness	0 ~ 60 (30)	
	Contrast	0 ~ 60 (30)	
	Hue	0 ~ 60 (30)	
	Saturation	0 ~ 60 (30)	
	Sharpness	0 ~ 63 (0)	
	NR	Off	
		Low	
		Middle	
		High	
		Auto	





LEVEL 1	LEVEL 2	LEVEL 3	LEVEL 4
Picture	Reset Picture		
Audio	Audio	Follow Video	
		Line In	
	Volume	0 ~ 100 (80)	
	Audio Mute	Off	
		On	
	Reset Audio	1	1
OSD	H Position	0 ~ 60 (30)	
	V Position	0 ~ 60 (30)	
	Timer	Off	
		5 SEC	
		10 SEC	
		15 SEC	
		20 SEC	
		25 SEC	
		30 SEC	
		35 SEC	-
		40 SEC	
	Transparent	0 ~ 50 (50)	
	Display	Off	
		On	
		55	
		105	
	Reset OSD		
EDID	HDMI EDID	INT 1080P (2CH)	
		INT 4K (3G-2CH)	
		INT 4K (6G-2CH)	
		Output	
	EDID Status	[Current Status]	





LEVEL 1	LEVEL 2	LEVEL 3	LEVEL 4
RS-232 Control	Control Baudrate	4800	
		9600	
		19200	
		38400	
		57600	
		115200	
	Control Stop Bits	1 Bit	
		2 Bit	
	Control Data Bits	5 Bit	
		6 Bit	
		7 Bit	
		8 Bit	
	Control Parity	None	
		Odd	
		Even	
Reset	All Reset		
Information	[System Information Display]		

Note: Values in **bold** or () are factory default settings.





6.4 RS-232 Commands

COMMAND	
DESCRIPTION	PARAMETERS
HELP⊷	
Show the full command list.	
?⊷ [⊥]	
Show the full command list.	
GET FW VER⊷	
Show the unit's firmware version.	
GET MODEL NAME⊷	
Show the unit's model name.	
SET OUT A ROUTE N1 ↔	
Select the input source.	Available values for N1: 1 [HDMI] 2 [VGA]
GET OUT A ROUTE ↩	
Show the current input source.	
SET OUT AUTO MODE N1 ↔	
Set the auto source select mode.	Available values for N1 : 0 [Off] 1 [Auto Switch]
GET OUT AUTO MODE⊷	
Show the current auto source select mode.	
GET OUT AUTO MODE LIST⊷	
List all available auto source modes.	
GET IN N1 TIMING⊷	
Show the video timing of the source connected to input N1.	Available values for N1 : 1 [HDMI] 2 [VGA]





PARAMETERS	S
Available value ON OFF	es for N1 : [Blank video] [Enable video]
Available value 0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 22	es for N1 : [Native] [640×480@60] [800×600@60] [1024×768@60] [1280×720@60] [1280×768@60] [1280×1024@60] [1280×1024@60] [1400×1050@60] [1400×1050@60] [1600×1200@60] [1920×1080@60] [1920×1080@60] [2048×1080@60] [2048×1080@60] [2560×1440@60RB] [2560×1600@60RB] [720×576p@60] [1280×720p@50] [1280×720p@60] [1280×720p@60]
	PARAMETER: Available valu ON OFF Available valu 0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 13 14 15 16 17 18 19 20 21 22 23





COMMAND		
DESCRIPTION	PARAMETER	S
(Cont.)	24	[1920×1080p@25]
	25	[1920×1080p@30]
	26	[1920×1080p@50]
	27	[1920×1080p@60]
	28	[2560×1080p@50]
	29	[2560×1080p@60]
	30	[3840×2160p@24]
	31	[3840×2169p@25]
	32	[3640×2160p@30] [4096×2160p@24]
	34	[4096×2160p@24]
	35	[4096×2160p@20]
		[
GET OUT A TIMIING ⊷		
Show the scaler's current output		
timing.		
GET OUT A SYNC STATUS⊷		
Show the current status of the connected display.		
GET OUT TIMING LIST⊷	1	
List all available output timings.		
SET OUT A CONTRAST N1 ↔		
Set the contrast of the scaled output.	N1 = 0 ~ 60	[Contrast]
GET OUT A CONTRAST⊷		
Show the current contrast setting.		
SET OUT A BRIGHTNESS N1 ↔		
Set the brightness of the scaled output.	N1 = 0 ~ 60	[Brightness]
GET OUT A BRIGHTNESS⊷		
Show the current brightness setting.		





COMMAND		
DESCRIPTION	PARAMETERS	S
SET OUT A SATURATION N1 ↔		
Set the saturation of the scaled output.	N1 = 0 ~ 60	[Saturation]
GET OUT A SATURATION⊷		
Show the current saturation setting.		
SET OUT A HUE N1⊷		
Set the hue of the scaled output.	N1 = 0 ~ 60	[Hue]
GET OUT A HUE⊷		
Show the current hue setting.		
SET OUT A SHARPNESS N1		
Set the sharpness of the scaled output.	N1 = 0 ~ 63	[Sharpness]
GET OUT A SHARPNESS⊷		
Show the current sharpness setting.		
SET OUT A NR N1 ↔		
Set the noise reduction level of the scaled output.	Available value 0 1 2 3 4	es for N1 : [Off] [Low] [Middle] [High] [Auto]
GET OUT A NR⊷		
Show the current noise reduction setting.		





COMMAND		
DESCRIPTION	PARAMETERS	
SET OUT A ASPECT RATIO N1 ↔		
Set the aspect ratio of the scaled output.	Available values for N1:0[Overscan]1[Full]2[Best Fit]3[Pan Scan]4[Letterbox]5[Under 2]6[Under 1]7[Follow In]	
GET OUT A ASPECT RATIO⊷		
Show the current output ratio of the scaled output.		
GET OUT ASPECT RATIO LIST⊷		
List all available output ratio settings.		
SET OUT A AUTO SYNC OFF N1 ⊷		
Set the auto sync off timeout.	Available values for N1:0[Disabled]1[30 Seconds]2[60 Seconds]3[3 Minutes]4[5 Minutes]5[10 Minutes]	
GET OUT A AUTO SYNC OFF←	1	
Show the current auto sync off timeout setting.		
SET OUT A R GAIN N1 ↩		
Set the red gain level of the scaled output.	N1 = 0 ~ 1023 [Red Gain]	
GET OUT A R GAIN⊷		
Show the current red gain level.		





COMMAND	
DESCRIPTION	PARAMETERS
SET OUT A G GAIN N1⊷	
Set the green gain level of the scaled output.	N1 = 0 ~ 1023 [Green Gain]
GET OUT A G GAIN⊷	
Show the current red gain level.	
SET OUT A B GAIN N1 ↔	
Set the blue gain level of the scaled output.	N1 = 0 ~ 1023 [Blue Gain]
GET OUT A B GAIN⊷	
Show the current red gain level.	
SET IN 2 PHASE N1 ←	
Set the PC input phase.	N1 = 0 ~ 255 [PC Phase]
GET IN 2 PHASE⊷	
Show the current PC input phase.	
SET IN 2 CLOCK N1 ↔	
Set the PC input clock.	N1 = 0 ~ 250 [PC Clock]
GET IN 2 CLOCK↓	
Show the current PC input clock.	
SET IN 2 HPOSITION N1 ←	
Set the PC input horizontal position.	N1 = 0 ~ 250 [PC H Position]
GET IN 2 HPOSITION ←	
Show the current PC input clock.	
SET IN 2 VPOSITION N1 ←	
Set the PC input vertical position.	N1 = 0 ~ 250 [PC V Position]
GET IN 2 VPOSITION ←	
Show the current PC input clock.	





COMMAND		
DESCRIPTION	PARAMETER	S
SET AUDIO OUT A ROUTE N1		
Select the audio source.	Available valu 1 2	es for N1 : [Follow Video] [Analogue Audio]
GET AUDIO OUT A ROUTE⊷	1	
Show the currently selected audio source.		
GET AUDIO IN TYPE LIST⊷		
List all available audio sources.		
SET AUDIO OUT A MUTE N1⊷		
Enable of disable the audio mute function.	Available valu ON OFF	es for N1 : [Mute Enabled] [Mute Disabled]
GET AUDIO OUT A MUTE⊷	`	
Show the current audio mute state.		
SET AUDIO OUT A VOLUME N1 -		
Set the audio output volume level.	N1 = 0 ~ 100	[Volume]
GET AUDIO OUT A VOLUME⊷		
Show the current audio output volume level.		
SET OUT A OSD TIMEOUT N1		
Set the OSD timeout length.	Available valu 0 1 2 3 4 5 6 7 8	es for N1 : [Off] [5 Seconds] [10 Seconds] [15 Seconds] [20 Seconds] [30 Seconds] [35 Seconds] [40 Seconds]





COMMAND		
DESCRIPTION	PARAMETERS	S
GET OUT A OSD TIMEOUT⊷		
Show the current OSD timeout length.		
SET OUT A OSD INFO DISPLAY N1 ↔		
Set the OSD Information Display	Available valu	es for N1 :
timeout length.	0	[Always Off]
	1	[Always On]
	2	[5 Seconds]
	3	[10 Seconds]
GET OUT A OSD INFO DISPLAY ⊷		
Show the current OSD Information		
Display timeout length.		
SET OUT A OSD VPOSITION N1 ←		
Set the OSD vertical position.	N1 = 0 ~ 60	[V Position]
GET OUT A OSD VPOSITION ⊷		
Show the OSD's current vertical position.		
SET OUT A OSD HPOSITION N1		
Set the OSD horizontal position.	N1 = 0 ~ 60	[H Position]
GET OUT A OSD HPOSITION ←		
Show the OSD's current horizontal		
position.		
SET OUT A OSD TRANSPARENCY N1↔		
Set the transparency level for the OSD.	N1 = 0 ~ 50	[Transparency]
GET OUT A OSD TRANSPARENCY ←		
Show the OSD's current		
transparency level.		





COMMAND	
DESCRIPTION	PARAMETERS
SET IN 1 HDCP MODE N1 ←	
Set the HDCP mode for the HDMI input.	Available values for N1:0[Disable HDCP]1[Follow Source]2[Follow Display]
GET IN 1 HDCP MODE⊷	·
Show the current HDCP mode for the HDMI input.	
GET OUT A HDCP STATUS⊷	
Show the current HDCP mode of the HDMI output.	
SET UART 1 BAUDRATE N1⊷	
Set the unit's RS-232 baud rate.	Available values for N1 : 0 [4800] 1 [9600] 2 [19200] 3 [38400] 4 [57600] 5 [115200]
GET UART 1 BAUDRATE⊷	
Show the current RS-232 baud rate.	
SET UART 1 STOP BITS N1⊷	
Set the number of stop bits for RS- 232.	Available values for N1:0[1 Bit]1[2 Bits]
GET UART 1 STOP BITS↩	
Show the current RS-232 stop bits setting.	





COMMAND			
DESCRIPTION	PARAMETERS		
SET UART 1 DATA BITS N1↔			
Set the number of data bits for RS- 232.	Available values for N1 : 0 [5 Bits] 1 [6 Bits] 2 [7 Bits] 3 [8 Bits]		
GET UART 1 DATA BITS⊷			
Show the current RS-232 data bits setting.			
SET UART 1 PARITY N1↩			
Set the parity for RS-232.	Available values for N1 : 0 [None] 1 [Odd] 2 [Even]		
GET UART 1 PARITY⊷			
Show the current RS-232 parity setting.			
SET OUT A AUTOMATION N1 MODE N2←			
Enable or disable each automated action slot.	N1 = 1 ~ 8[Slot Number]Available values for N2:ON[Enable]OFF[Disable]		
GET OUT A AUTOMATION N1 MODE ↔			
Show the current state of automated action slot N1.	N1 = 1 ~ 8 [Slot Number]		
SET OUT A AUTOMATION N1 COMMAND N2-			
Set the RS-232 string to send when automated action N1 is activated.	N1 = 1 ~ 8 [Slot Number] N2 = {string} [64 Chars Max]		
GET OUT A AUTOMATION N1 COMMA	ND↩		
Show the current RS-232 command string assigned to slot N1.	N1 = 1 ~ 8 [Slot Number]		





COMMAND			
DESCRIPTION	PARAMETER	S	
SET OUT A AUTOMATION N1 EVENT N2←			
Set the event that will activate	N1 = 1 ~ 8	[Slot Number]	
automated action slot N1.	Available values for N2 :		
	1	[All Signal Loss]	
	2	[Live Source Plug In]	
	3	[Signal Loss]	
	4	[Signal Lock]	
GET OUT A AUTOMATION N1 EVENT←	I		
Show the event currently assigned	N1 = 1 ~ 8	[Slot Number]	
to automated action slot N1.			
SET OUT A AUTOMATION N1 TRIGGER	DELAY N2⊷		
Set the amount of time to delay	N1 = 1 ~ 8	[Slot Number]	
before activating the automated	N2 = 0 ~ 300	[Delay Seconds]	
action after the event's condition is		- , -	
met.			
GET OUT A AUTOMATION N1 TRIGGEF	R DELAY⊷		
Show the current delay time	N1 = 1 ~ 8	[Slot Number]	
assigned to automated action slot			
N1.			
List all available Trigger Events.			
SET IN 1 EDID N1 ←			
Set the EDID to use with the HDMI	Available values for N1 :		
input.	1	[1080P, 2CH]	
	2	[4K (3G), 2CH]	
	5		
	-		





COMMAND	
DESCRIPTION	PARAMETERS
GET IN 1 EDID⊷	
Show the currently selected EDID source for the HDMI input.	
GET IN EDID LIST⊷	
List all available EDID sources.	

Note: Commands will not be executed unless followed by a carriage return. Commands are not case-sensitive.





7. CONNECTION DIAGRAM







8. SPECIFICATIONS

8.1 Technical Specifications

HDMI Bandwidth	600MHz/18Gbps
HDBaseT Bandwidth	340Hz/10.2Gbps
Input Ports	1×HDMI 1×VGA 1×3.5mm (Stereo Audio)
Output Port	1×Cat.5e/6/7
Pass-through Port	1×LAN [RJ-45]
Power Supply	12V/3A DC (US/EU standards, CE/FCC/UL certified)
ESD Protection	Human Body Model: ±12kV (Air Discharge) ±8kV (Contact Discharge)
Dimensions	147mm×87.5mm×41.5mm (W×H×D) [Case Only] 147mm×87.5mm×46.6m (W×H×D) [All Inclusive]
Weight	250g
Chassis Material	Metal
Silkscreen Colour	White
Operating Temperature	0°C - 40°C/32°F - 104°F
Storage Temperature	–20°C - 60°C/–4°F - 140°F
Relative Humidity	20 - 90% RH (Non-condensing)
Power Consumption	26.4W





8.2 Video Specifications

		Input		Output
Supported P	C Resolutions (Hz)	HDMI	VGA	HDMI via HDBaseT
640×480	60, 72, 75, 85	\checkmark	\checkmark	60
720×400	85	\checkmark	\checkmark	
800×600	56, 60, 72, 75, 85	\checkmark	\checkmark	60
1024×768	60, 70, 75, 85	\checkmark	\checkmark	60
1152×864	75	\checkmark	\checkmark	
1280×720	60	\checkmark	\checkmark	\checkmark
1280×768	60, 75, 85	\checkmark	\checkmark	60
1280×800	60	\checkmark	\checkmark	\checkmark
1280×960	60	\checkmark	\checkmark	
1280×1024	60	\checkmark	\checkmark	\checkmark
1360×768	60	\checkmark	\checkmark	\checkmark
1366×768	60	\checkmark	\checkmark	
1400×1050	60	\checkmark	\checkmark	\checkmark
1440×900	60	\checkmark	\checkmark	\checkmark
1600×1200	60	\checkmark	\checkmark	\checkmark
1680×1050	60	\checkmark	\checkmark	\checkmark
1920×1080	60	\checkmark	\checkmark	\checkmark
1920×1200	60 (RB)	\checkmark	\checkmark	\checkmark
1920×1440	60	\checkmark		\checkmark
2048×1080	50, 60	\checkmark		\checkmark
2560×1440	60 (RB)	\checkmark		\checkmark
2560×1600	60 (RB)	\checkmark		\checkmark

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		Input		Output
Supported TV	Resolutions (Hz)	HDMI	VGA	HDMI via HDBaseT
720×480i	59.94, 60	\checkmark		
720×576i	50	\checkmark		
720×480p	59.94, 60	\checkmark	\checkmark	60
720×576p	50	\checkmark	\checkmark	
1280×720p	50, 59.94, 60	\checkmark	\checkmark	\checkmark
1920×1080i	50, 59.94, 60	\checkmark		50/60
1920×1080p	50, 59.94, 60	\checkmark	~	
1920×1080p	23.97, 24, 25, 29.97, 30	\checkmark	\checkmark	24/25/30
2560×1080p	50, 60	\checkmark		\checkmark
3840×2160p	24, 25, 30	\checkmark		\checkmark
4096×2160p	24, 25, 30	\checkmark		\checkmark
3840×2160p (YUV 4:2:0)	50, 60	\checkmark		
3840×2160p	50, 60	\checkmark		

8.3 Cable Specifications

HDMI Cable	108	4K	
Length (metre)	8-bit	8-bit	
Input	10	10	5
Output	10 10		5

Cat. Cable Length (metre)	1080p	4K
Cat.5e	100	70
Cat.6	100	70





Full HD Video (1080p)

- Up to 1080p@60Hz, 12-bit colour
- Data rates lower than 5.3Gbps or below 225MHz TMDS clock

Ultra HD Video (4K)

- 4K@24/25/30Hz & 4K@50/60Hz (YUV 4:2:0), 8-bit colour
- Data rates higher than 5.3Gbps or above 225MHz TMDS clock

9. ACRONYMS

ACRONYM	COMPLETE TERM
Cat.5e	Category 5 (enhanced) Cable
Cat.6	Category 6 Cable
Cat.7	Category 7 Cable
CEC	Consumer Electronics Control
DVI	Digital Visual Interface
HD	High-Definition
HDCP	High-bandwidth Digital Content Protection
HDMI	High-Definition Multimedia Interface
LAN	Local Area Network
LPCM	Linear Pulse-Code Modulation
PD	Powered Device
РоН	Power over HDBaseT
PSE	Power Sourcing Equipment
UHD	Ultra-High-Definition
VGA	Video Graphics Array
WUXGA	Wide Ultra Extended Graphics Array



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