

HDMI/USB TYPE-C Extender

AVLINK®



WUH-3MLCU

Quick Start Guide V1.0

Package Contents:

- 1x WUH-3MLCU Unit
- 1x Quick Start Guide
- 1x Power Adapter DC 12V (With 1x2 Pole Captive Screw Socket)
- 4x Screws
- 1x Female 1x3 Pole Captive Screw Socket

If any items are missing, please contact your vendor for assistance.

Features

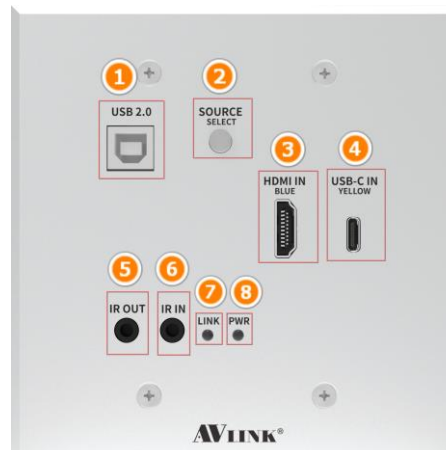
- Transmit signals up to 40 meters via CAT6A U/FTP cable
- Features a Power over Cable (PoC) On/Off function for added convenience.
- Easily select between USB Type-C or HDMI input video sources using the LED-indicated button.
- Achieve outstanding resolution of up to 4K/60Hz 4:4:4(Uncompressed)
- Utilizes HDBaseT™ 3.0 Technology with an impressive 18Gbps bandwidth
- Compliant with HDMI 1.4/HDMI 2.0 standards, including support for HDR

- Ensures HDCP compatibility with versions 1.4, 2.2, and 2.3.
- Offers USB Type-C with (DisplayPort 1.2 Alternate Mode)
- Enables CEC pass-through for seamless control.
- Facilitates IR extension control across all frequency bands.
- Includes a USB 2.0 HOST Extender
- Supports bi-directional IR receiver and transmitter for all frequencies.
- Incorporates RS-232 for firmware upgrades.
- Requires only a single CAT.6A U/FTP cable for extension (Note 1)
- Supports Power over Cable (PoC) functionality (Note 2)

Specifications

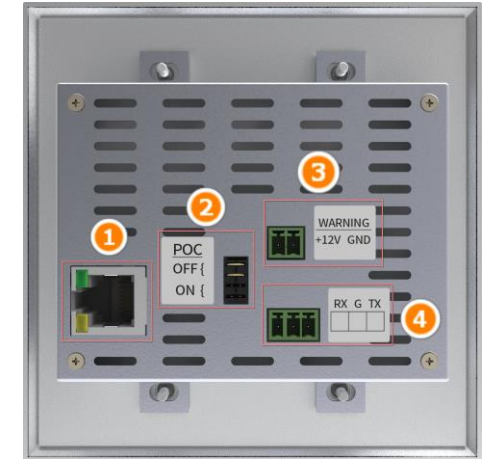
Function	WUH-3MLCU
Cable Distance	CAT6A U/FTP 40M
USB Type B	USB 2.0 (Host)
HDMI In Connector	HDMI A-Type Female x 1
USB Type-C In Connector	USB type - C Female x 1
LINK	RJ-45 Connector x 1
RS232 Connector	1x3 Pole Captive Screw Socket x 1
IR OUT	3.5ψ Stereo Jack x 1
IR IN	3.5ψ Stereo Jack x 1
Source Selection (HDMI/USB Type-C)	LED push button x1 (BLU/YEL)
Max. Resolution	4K/60Hz 4:4:4
Power Adapter (Min.)	DC 12V 2A (1x2 Pole Captive Screw socket)
Power Consumption (with PoC)	22W (Maximum) 2W (Stand by)
Housing	Metal
Weight	300g
Dimensions (L x W x H)	120 x 120 x 37.5 mm

FRONT VIEW



1. USB 2.0 Input
2. Source Selection (HDMI/USB Type-C)
3. 1x HDMI Input Connector (A-Type Female)
4. USB Type-C Input Connector
5. IR Input
6. IR Output
7. LINK LED
8. PWR LED

REAR VIEW



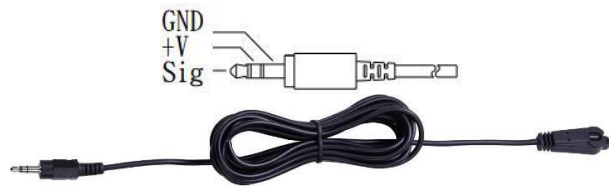
1. Link (RJ-45 Connector)
2. PoC Select (ON/OFF)
3. DC 12V (1x2 Pole Captive Screw Socket)
4. RS-232 Connector (1x3 Pole Captive Screw Socket)

Installation

1. Ensure that both the HDMI source and HDMI display are powered off.
2. Connect the HDMI/USB Type-C cable between the HDMI/USB Type-C source and the "HDMI/USB Type-C IN" port of WUH-3MLCU.
3. Use an HDMI cable to establish a connection between the HDMI display and the "HDMI OUT" port of HDM-3MXCU.
4. Connect CAT.5e/6/6A cables between the "LINK" port of WUH-3MLCU and the corresponding "LINK" port of HDM-3MXCU.
5. Plug in the power cord for WUH-3MLCU.
6. Power on both the HDMI/USB Type-C source and the display.

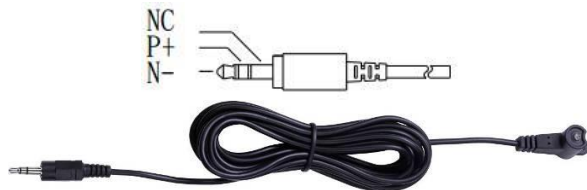
IR Receiver Cable Directions:

Connect the IR Receiver Cable to the port of WUH-3MLCU to enable convenient pointing with your IR remote controller.

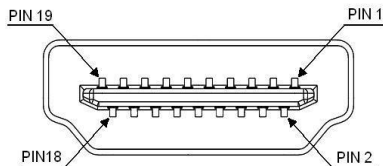


IR Blaster Cable Directions:

Insert the IR blaster cable into the “IR OUT” port of WUH-3MLCU, Place it directly in front of the equipment’s IR receiver, so that you can reach your AV equipment.

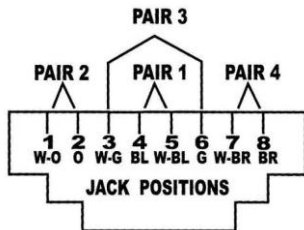


Technical Specifications Output Signal



Pin #	Signal	Pin #	Signal
1	TMDS Data 2+	11	TMDS Clock Shield
2	TMDS Data 2 Shield	12	TMDS Clock -
3	TMDS Data 2-	13	CEC
4	TMDS Data 1+	14	Reserved (N.C. on device)
5	TMDS Data 1 Shield	15	SCL
6	TMDS Data 1-	16	SDA
	TMDS Data 0+	17	DDC/CEC Ground
8	TMDS Data 0 Shield	18	+5V Power
9	TMDS Data 0-	19	Hot Plug Detect
10	TMDS Clock+		

Wiring Information & Coding



Conductor Identification	RJ-45 Pin Assignment	Color Code for Conductor
Pair 1	5	White-Blue
	4	Blue
Pair 2	1	White-Orange
	2	Orange
Pair 3	3	White-Green
	6	Green
Pair 4	7	White-Brown
	8	Brown

TxGRx (Upgrade Firmware Only):

Utilize the RS-232 transmission line to connect the PC for both local and remote upgrades.



Rx/G/Tx:

Rx: Receive RS232-level signal pin. (Data in)

G: GND

Tx: Transmit RS232-level signal pin. (Data out)

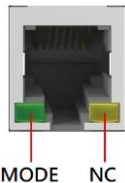
Power Connector:



POC ON/OFF Selection:



OUTPUT LED:



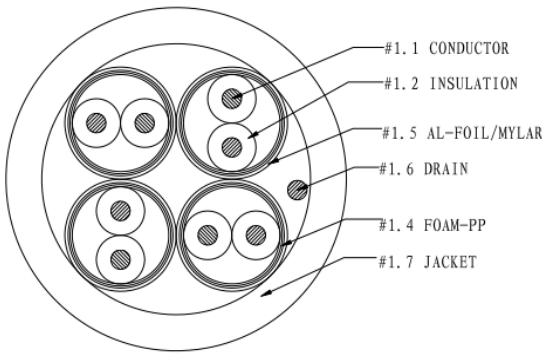
MODE: The blinking LED indicates that the unit’s firmware has been successfully loaded, and the system is operating normally.

LINK: The lit LED indicates the establishment of HDBaseT™ connection between the TX and RX using CATx cable.

PWR	Lit	POWER ON
	Dim	POWER OFF
Mode	Blinking	FW Loaded and Running
Link	Lit	HDBT Link
	Blinking	HDBT Low Power Mode
	Dim	No HDBT Link

Note

- The actual transmission quality of CAT6A U/FTP cable can impact the maximum transmission distance. Cable Composition: 23AWG*4P CAT6A U/FTP with a 500MHZ rating and an attenuation rate of 39 dB/100m
- The stability of the remote power supply, provided through PoC, is influenced by the specific characteristics of the CAT6A cable. To enhance stability, consider either reducing the cable length or upgrading to a CAT6A cable with a higher AWG rating.



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