

HDMI EXTENDER

AVLINK™



**VH-ELWB
(Local)**



**VH-ERWB
(Remote)**

USER MANUAL VH-EXWB

V1.1

Package Contents-

- 1x VH-ELWB Local Unit
 - 1x VH-ERWB Remote Unit
 - 1 user manual
 - 1x Power adapter DC 48V with lock and Power Cord
 - 1x IR Blaster Cable
 - 1x IR Receiver Cable
 - 4x screws
 - 8x foot pads
 - 2x Female 1x2 Pole Captive Screw Socket
- Any thing missed, please contact with your vendor.

Features

- Through the HDMI Extender, you can use one DVD or PC to display identical image and extension of HDMI signal up to 100 meter on HDTV
- HDCP Compliant
- Supports 3D pass-through
- Support RS-232(Bi-direction transfer)
- Supports all frequency band IR control
- One CAT.5 cable extension
- Supports HDTV up to 4k2k
- Supports VGA up to 1920 X1200
- HD-baseT technology
- Use CAT.5 cable to install easily
- Cable Distance
- Supports Power over Cable
- Undervoltage, Overvoltage and Thermal Protection
- Short-Circuit Protection with Auto-Restart

Resolution	Cable Type	VH-EXWB
1080P(12bit)	Cat5e/Cat6	100M
	Cat6a/Cat7	100M
4Kx2K	Cat5e/Cat6	70M
	Cat6a/Cat7	100M

Specifications

Function	Local	Remote
HDMI In Connector	HDMI A-Type Female x 1	None
HDMI Out Connector	HDMI A-Type Female x 1 (DA)	HDMI A-Type Female x 1
VGA In Connector	HD-15 Female x 1	
RJ-45 Connector	1	
IR OUT	3.5φ Stereo Jack x 1	
IR2 IN	3.5φ Stereo Jack x 1	
Source select (TAC Switch)	TAC SW X1	
Source select (TB)	1X2 Pole Captive Screw	
Max. Resolution	4k2k	
FW Upgrade Switch	8 PIN DIP Switch	2 PIN DIP Switch
Mode select Switch	None	
Cable Distance	100M	
Power Adapter (Min.)	DC 48V with lock	
Housing	Metal	
Weight	550g	324g
Dimensions (LxWxH)	171x120x35 mm	150x80x35 mm

LOCAL FRONT VIEW



- TACK SW (HDMI/VGA SELECT)
- 1X2 Pole Captive Screw (HDMI/VGA SELECT)
- RS-232
- DIP SW
- IR OUT
- IR IN
- SOURCE LED (LOCAL HDMI / VGA, REMOTE HDMI / VGA)
- ACTIVE LED (MODE, LINK, HDCP, POWER)

LOCAL REAR VIEW



- Power jack (48V DC IN)
- LINK (RJ-45 Connector)
- HDMI OUT (DA)
- HDMI IN
- VGA IN
- AUDIO IN

REMOTE FRONT VIEW



- IR IN
- IR OUT
- DIP SW
- ACTIVE LED (MODE, LINK, HDCP, POWER)
- HDMI LED
- VGA LED
- 1X2 Pole Captive Screw (HDMI/VGA SELECT)
- TACK SW (HDMI/VGA SELECT)

REMOTE REAR VIEW



- LINK (RJ-45 Connector)
- HDMI OUT
- RS-232

Installation

1. Turn off the DVD PC and HDTV.
2. Connect the HDMI extension cable between the DVD and the "HDMI IN" port of VH-ELWB.
3. Connect the VGA extension cable between the PC and the "VGA IN" port of VH-ELWB.
4. Connect the AUDIO extension cable between the PC and the "AUDIO IN" port of VH-ELWB.
5. Connect the HDMI extension cable between the HDTV and the "HDMI OUT" port of VH-ELWB.
6. Connect the CAT.5 cables between the VH-ELWB "LINK" port and the VH-ERWB "LINK" port of extender.
7. Connect the power cord and turn on the extender.
8. Turn on the DVD and HDTV.
9. Select source (HDMI/VGA) by TACK SW or 1X2 pole captive screw (short).

IR Receiver Cable Directions:

Put it into the VH-ERWB "IR IN" port and place the IR Receiver Cable, so that you can point to it easily with your IR remote controller.

IR Blaster Cable Directions:

Plug IR blaster cable plug into VH-ELWB "IR OUT" port, It sits in front of the DVD receiver's IR sensor, which is located on the front-panel.

DIP Switch Setting

VH-ELWB:

BIT 1~2: F/W UPGRADE

- OFF, OFF → NORMAL
- OFF, ON → REMOTE
- ON, OFF → LOCAL

BIT 5~6: AUTO/MANUAL

- OFF, OFF → NORMAL
- OFF, ON → AUTO SENSING
- ON, OFF → HDMI PRIORITY
- ON, ON → VGA PRIORITY

BIT 7~8: DA MODE

- OFF, OFF → SELECTED
- OFF, ON → NON-SELECTED
- ON, OFF → HDMI
- ON, ON → VGA

VH-ERWB:

BIT 1~2: F/W UPGRADE

- OFF, OFF → NORMAL
- OFF, ON → LOCAL
- ON, OFF → REMOTE

F/W UPGRADE

Process the Update TX_ xxx.bat or UpdateRX_ xxx.bat file to upgrade firmware. (xxx is specified for firmware version) These files are used for upgrading in your devices.

- The UpdateTX_ xxx.bat file is used to upgrade the Local firmware.
- The UpdateRX_ xxx.bat file is used to upgrade the Remote firmware.

Local Unit:

1. Connect the RS-232 cable between the PC and the "RS-232" port of VH-ELWB.
2. Dip switch bit1 set "ON", Running "TX_ xxx.bat" file ,you can upgrade VH-ELWB.
3. Dip switch bit2 set "ON", Running "RX_ xxx.bat" file ,you can upgrade VH-ERWB.

Remote Unit:

1. Connect the RS-232 cable between the PC and the "RS-232" port of VH-ERWB.
2. Dip switch bit1 set "ON", Running "RX_ xxx.bat" file ,you can upgrade VH-ERWB.
3. Dip switch bit2 set "ON", Running "TX_ xxx.bat" file ,you can upgrade VH-ELWB.

Additional Options

Select any additional options you may require.

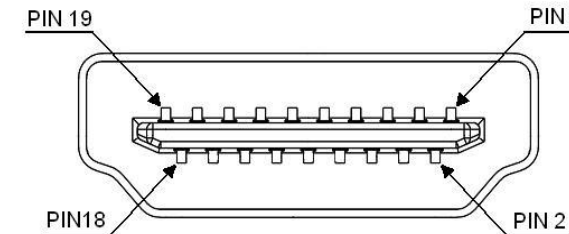
1. IR Receiver Cable



2. IR Blaster Cable



Technical Specifications Output Signal

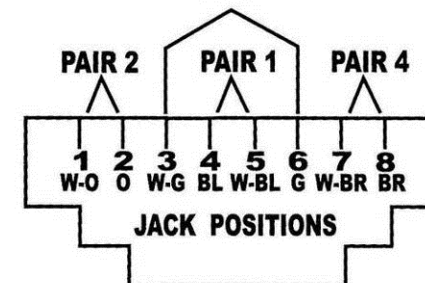


Pin #	Signal	Pin #	Signal
1	TMDS Data 2+	11	TMDS Clock Shield
2	TMDS Data 2 Shield	12	TMDS Clock -
3	TMDS Data 2-	13	CEC
4	TMDS Data 1+	14	Reserved (N.C. on device)
5	TMDS Data 1 Shield	15	SCL
6	TMDS Data 1-	16	SDA
7	TMDS Data 0+	17	DDC/CEC Ground
8	TMDS Data 0 Shield	18	+5V Power
9	TMDS Data 0-	19	Hot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

Wiring Information & Coding

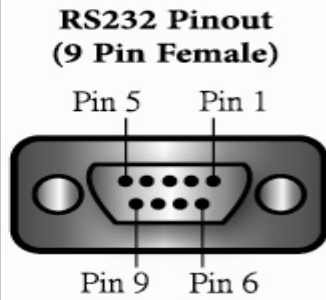
Conductor Identification	RJ45 Pin Assignment	Color Code for Conductor
Pair 1	5	White-Blue
	4	Blue
Pair 2	1	White-Orange
	2	Orange
Pair 3	3	White-Green
	6	Green
Pair 4	7	White-Brown
	8	Brown

PAIR 3



RS232/D-Sub 9 Pin Definitions

Pin 1	N/C
Pin 2	TxD (Data Out)
Pin 3	RxD (Data In)
Pin 4	N/C
Pin 5	GND
Pin 6	N/C
Pin 7	N/C
Pin 8	N/C
Pin 9	N/C



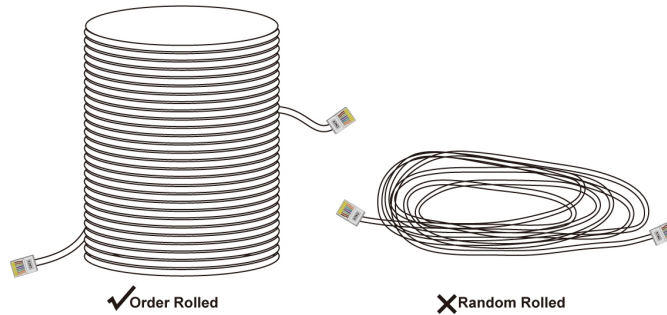
Support VGA mode

Analog	Resolution	Frequency(Hz)
VGA	640x480	60 / 72 / 75 / 85
VGA	720x400	70 / 85
SVGA	800x600	56 / 60 / 72 / 75 / 85
WVGA	848x480	60
XGA	1024x768	60 / 70 / 75 / 85
SXGA	1152x864	75
SXGA	1280x768	60RB / 60 / 75 / 85
WXGA	1280x800	60
SXGA	1280x960	60 / 85
SXGA	1280x1024	60 / 75 / 85
WXGA	1360x768	60
SXGA+	1400x1050	60RB / 75
WXGA+	1440x900	60
SXGA+	1440x1050	60
UXGA	1600x1200	60
WSXGA+	1680x1050	60
1080P	1920x1080	60
WUXGA	1920x1200	60RB
720P	1280x720	60

Note

However sometimes, especially in demonstrations or in a lab environment, the cable is rolled randomly in small turns for convenience. The randomly rolled UTP cable suffers additional signal impairments (compared to a straight cable) and therefore the maximal operating reach might be reduced.

Rolling a CAT5E cable around a 70cm fixed diameter plastic drum has just a minor effect on the FEXT (Far End Cross Talk) when compared to a fully stretched cable.



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