

• Important Safety Instructions

1. Please read the user manual carefully before using this product, and keep these instructions.
2. Carefully note the transmitter and receiver before installation.
3. It is advised to set the channel of the transmitter before accessing the network.
4. This extender must be installed and operated within the limits of the specified operating temperature and humidity.
5. Do not place objects on top of the unit.
6. Do not position the matrix extender near any heat source such as heater, radiator, or direct exposure to sun.
7. Use the provided 5V DC power supply only. Make sure the power specifications match if using 3rd party DC adapters.

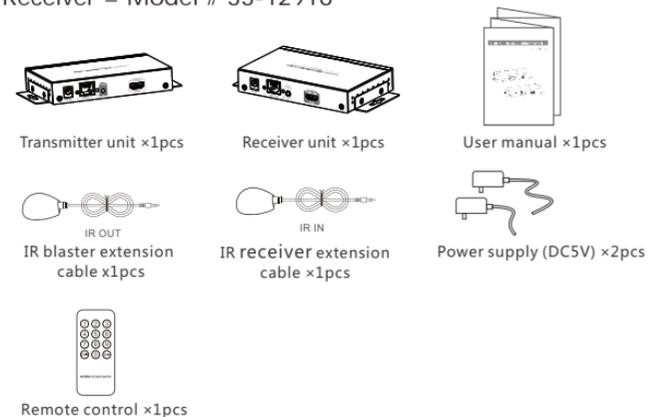
• Product Introduction

This HDbiT HDMI Extender Matrix includes a transmitter unit(TX) and a receiver unit(RX). It allows for the distribution and switching of high definition video/audio sources. It applies advanced HDbiT technology, supporting resolutions up to 1080p@60Hz. It can also be used in point-to-point connections up to 120 meters. This product is widely used in digital signage advertising, video control rooms, class rooms, entertainment and exhibition centers, safety monitoring systems, etc...

• Product Features

1. Applies advanced HDbiT over IP technology.
2. Resolution supported is up to 1080p@60Hz.
3. Transmission distance is up to 120 meters via CAT6.
4. Supports IR pass back to control source device from RX location.
5. Offer scalable and flexible input-output matrix configurations
6. Computer control software to select and switch source device inputs.
7. Plug and play.
8. Select and switch source device input from receiver via remote control

• **Package Content:** Sender = Model # 33-12915
Receiver = Model # 33-12916

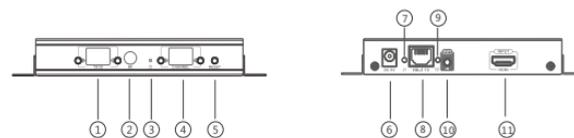


• Installation Requirements

1. HDMI source devices: with HDMI OUTPUT interface, DVD, PS3, STB, PC etc.
2. Display devices : With HDMI INPUT port, SDTV, HDTV, projector etc.
3. Network cables : UTP/STP CAT5/5E/6 network cables, which follow the standard of IEEE-568B.
Transmission length: CAT5 80m/CAT5E 100m/CAT6 120m.

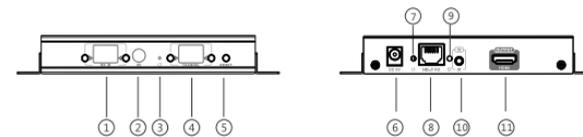
• Panel Description

1. Transmitter unit



- ① TX ID: indicator of the current TX ID number
- ② IR receiver panel: remote control channel
- ③ Power indicator
- ④ Channel: indicator of the current channel number
- ⑤ RESET button
- ⑥ 5V DC power input
- ⑦ Data transmission indicator
- ⑧ RJ45 signal output
- ⑨ Connection indicator
- ⑩ IR blaster extension port
- ⑪ HDMI signal input

2. Receiver unit

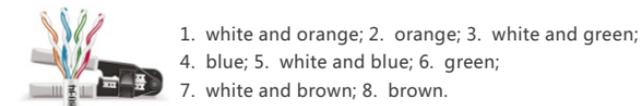


- ⑥ RX ID: indicator of the current RX ID number
- ⑦ IR receiver panel: remote control channel
- ⑧ Power indicator
- ④ Channel: indicator of the current channel number
- ⑤ RESET button
- ⑥ 5V DC power input
- ⑦ Data transmission indicator
- ⑧ RJ45 signal input
- ⑨ Connection indicator
- ⑩ IR receiver extension port
- ⑪ HDMI signal output

• Installation and Connection

1. How to make a CAT5/5E/6 network cable

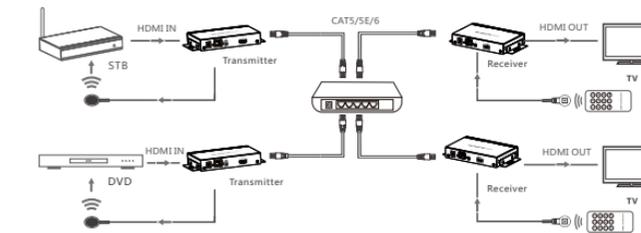
Follow the standard of IEEE-568B:



1. white and orange; 2. orange; 3. white and green;
4. blue; 5. white and blue; 6. green;
7. white and brown; 8. brown.

2. Connection Drawing

2.1 Matrix configuration



【NOTE】: The switch has to support IGMP function

2.2 Point-to-point configuration



3. IR use guide

3.1 IR passback

IR blaster extension cable should plug into the IR-out port of TX (Transmitter) of this extender matrix, and the IR receiver extension cable should plug into the IR-in port of the RX (Receiver) of this matrix extender. The emitter of IR blaster should be as close as possible to the IR receiver of the signal source device.

3.2 IR remote control

Use the IR remote control to set/select the channel of this HDMI Extender Matrix

4. Computer software control use guide

4.1 Access to network

Connect your PC/computer with a IGMP Ethernet switch via a single network cable

4.2 PC/computer setting

Change the PC/computer's IP to 192.168.1.xxx (xxx can be 0 to 255)

4.3 Web operation

Open application program "HDbiT E-Matrix Control center", it displays the interface as Figure 1

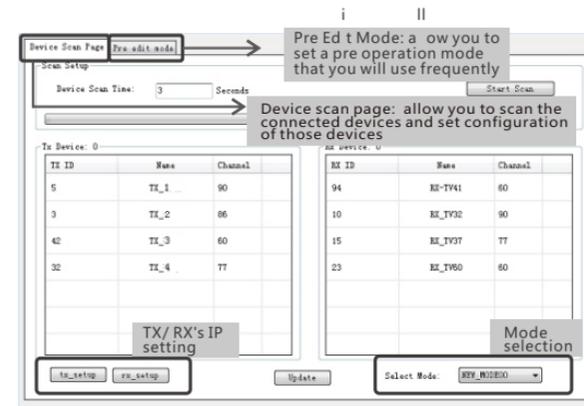


Figure 1

IP setting

TX and RX have their own default IP address, TX's IP is 192.168.1.238, and RX's IP is 192.168.1.239. **Generally, there is no need to change the device IP address**, as the system can work normally even though multiple TX units and multiple RX units are connected into the system with their default IP address.

If IP change is needed, please follow the operation shown in Figure 2 (here make an example of TX's IP setting only, RX's setting is the same as TX's)

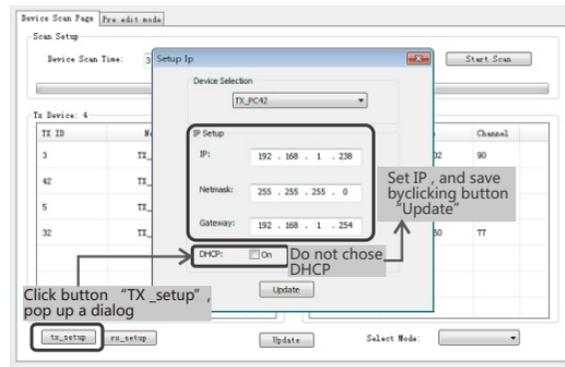


Figure 2

Device scanning and setting (here make an example of TX's setting only, RX's setting is same as TX's)

* Click button "Start Scan" the scanned result shows as Figure 3

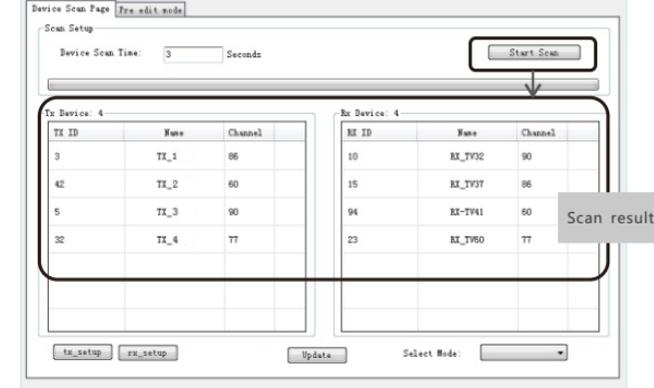
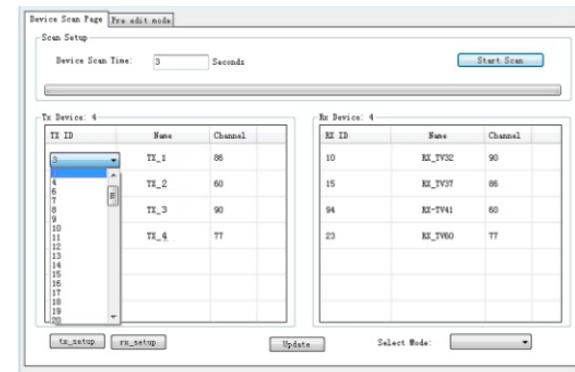


Figure 3

* Device ID setting as Figure 4



Figure

* Device Name setting as Figure 5

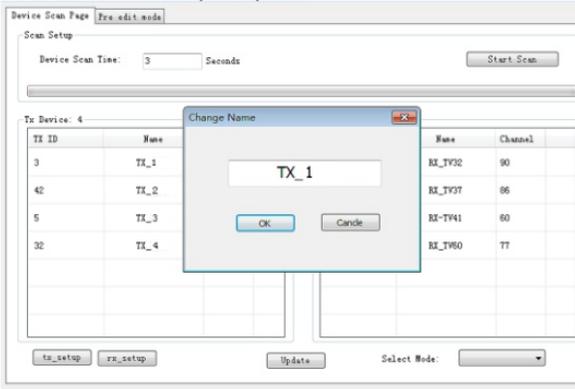


Figure 5

* Device Channel setting as Figure 6

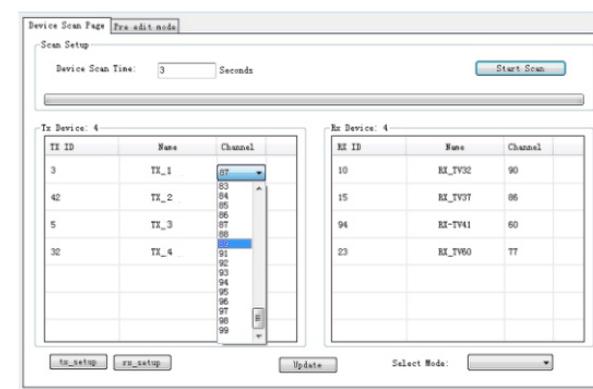


Figure 6

Click button "Update", new configuration will be saved

Pre-operation mode editing, show as Figure 7

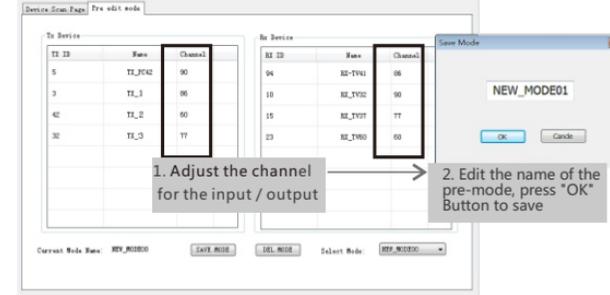


Figure 7

Operation mode selection setting

Follow up Figure 8, Click button "Select Mode", to choose the mode needed.

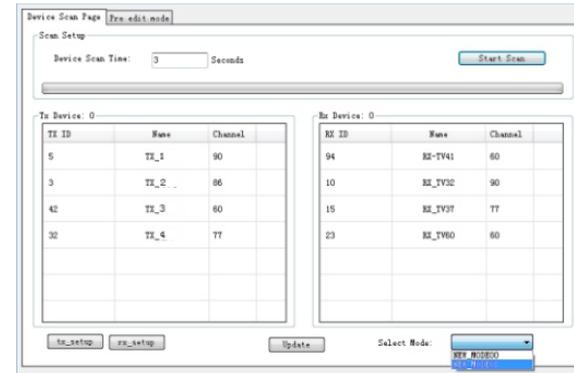


Figure 8

FAQ

- Q: TV display "Waiting for connection" on the right corner ?
 A: 1) Please check if the power supply of transmitter and switcher(if used) is connected, and make sure all connections are correct.
 2) Please check and make sure receiver's channel number is within transmitter's channel list.
 3) Please check and make sure all of the transmitter's channel are different
- Q: TV display "Please check the transmitter input signal" ?
 A: 1) please check if there is a HDMI signal input of transmitter;
 2) Try to connect the signal source directly to display device to see if there is signal output from source device, or change the signal source, HDMI wire and try again.
- Q: Display is not fluent, not stable?
 A: 1) Please check and make sure your switch has IGMP function, and the IGMP function is open.
- Q: Black screen or no image on displays?
 A: 1) Power off the input of source device, if TV displays "Please check the transmitter input signal" after about 10 seconds, please connect the source again, change and try another resolution.

Specification

Item	Specification
HDMI signal	HDMI1.3,compliant to HDCP
Network bandwidth	18Mbps
Supported Resolution	480i@60Hz, 480p@60Hz, 576i@50Hz, 576p@50Hz, 720p@50/60Hz, 1080i@50/60Hz, 1080p@50/60Hz
Audio format	PCM
TMDS signal	0.7~1.2Vp-p
DDC signal	5Vp-p
Remote control	Support
IR passback	Supports 20~60KHz IR devices
Matrix configuration	Up to 99 source signals can be connected and switched to infinite output
Power supply	5V/1A
Power consumption	TX≤4W ; RX≤4W
Weight	TX260g ; RX250g
Dimensions(LxWxH)	133.8×83.8×23.8mm
Working Temperature	0~60°C
Storage temperature	-20~70°C
Relative humidity	0~95%(no condensation)
Color	Black

Disclaimer

This product carries a limited 90 day warranty, which does not apply if the product has been damaged, deteriorates, malfunctions or fails from:improper installation, misuse, abuse, neglect, accident, tampering, modification of the product as originally manufactured by Stellar Labs® in any manner whatsoever, usage not aligned with product instructions or acts of nature such as damage caused by wind, lightning, ice or corrosive environments such as salt spray and acid rain. This Limited Warranty also does not apply if the product becomes unable to perform its intended function in any way as a result of the television signal provider making any changes in technology or service. Should a failure be determined covered by the warranty, it will be the sole discretion of MCM Electronics to repair or replace the product. This warranty covers the product only, and does not include any additional product or expense incurred. No liability outside the product itself is implied.



HDbiT HDMI Extender Matrix

User Manual

