HDMI Extender Matrix

User Manual

This product delivers reliable HDMI transmission over single cat5/6cable and enable matrix extender function through Lan switch which supports IGMP.
It supports TCP/IP. Easy and simple to build video network matrix and it is with good stability and anti-interference capability.
Widely applied in the fileds requiring full HD, such as advertising business, product show, CCTV field etc.

1. IMPORTANT SAFETY INSTRUCTIONS

1. Do not mix up transmitter TX and receiver RX before installation.
2. Do not plug and unplug IR receiver extension cable with power on.
   Use DC5V power supply only. Please make sure specification matched if using
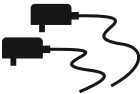3. adapters not supplied by us.

2. PACKAGE CONTENTS

HDMI to Lan sender TX   Lan to HDMI receiver RX   DC5V1A*2pcs

Remote Control   IR receiver extension cable   User Manual

3. INSTALLATION REQUIREMENTS

3.1 HDMI source device (computer graphics card, DVD,PS3, HD monitoring equipment etc)
3.2 Display or projector with HDMI port.
3.3 Lan switch with IGMP or IGMP snooping function.
3.4 UTP/STP cat5e/6 cable
3.5 Network cable length requirement between switch and TX/RX cascade:
   CAT5≤80m
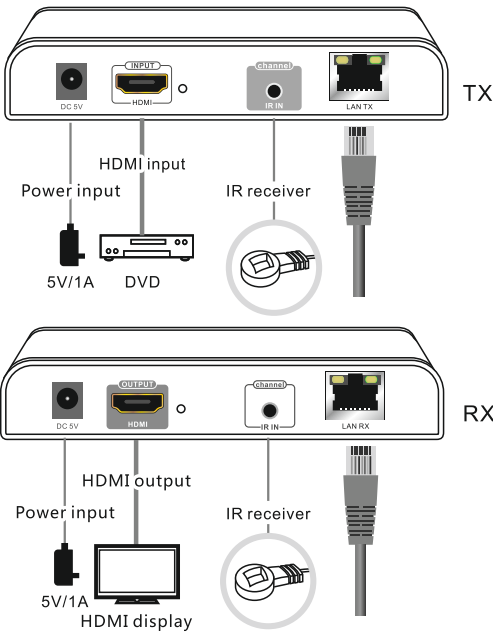   CAT5E≤100m
   CAT6≤120m

4. INSTALLATION PROCEDURES

4.1 Assembly cat5e/6 network cable
   Follow the stanard of IEEE-568B:
   1-Orange/white   2-Orange
   3-Green/white   4-Blue
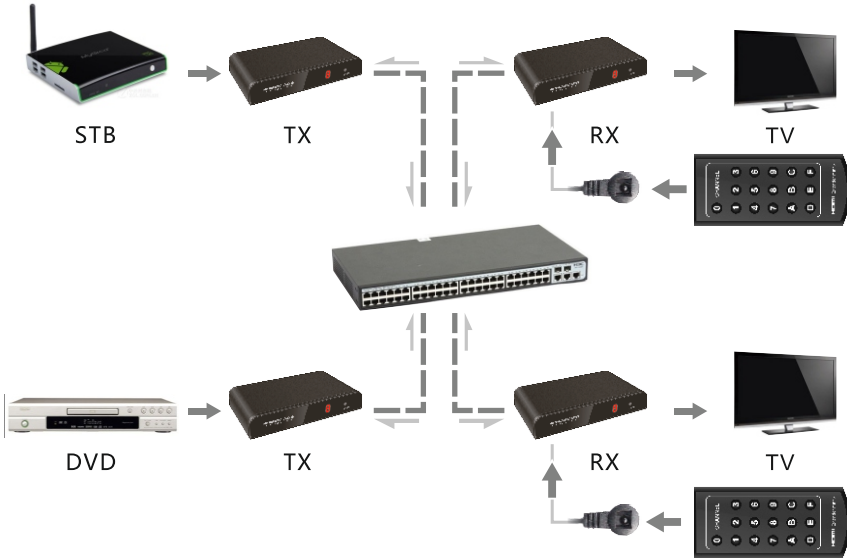   5-Blue/white   6-Green
   7-Brown/white   8-Brown

4.2 Set IP and MAC address of TX and RX, please refer to (5.1) to change.
4.3 Check if IGMP function of LAN switch is enabled. IGMP/IGMP snooping is enabled through LAN switch network management. Please make sure the switch support IGMP/IGMP snooping function when purchasing it. The LAN switch network management setting is differnent from different manufacturers. Contact your LAN switch supplier to consult how to enable IGMP function.
4.4 Connections
   1) Connection between ports

TX

HDMI input
Power input   IR receiver
5V/1A   DVD

RX

HDMI output
Power input   IR receiver
5V/1A
HDMI display

2) Connection via LAN switch

STB   TX   RX   TV

DVD   TX   RX   TV

5. IGMP group chosen and Nixie tube display instruction

5.1 Button usage instruction
   Short press: Press to set IGMP group and display the setted value.Product switches automatically to the corresponding IGMP group 5 seconds after the press.

   Long press: Press and keep 3 seconds to reset the product, only for software. It will not restore system specification to factory setting.

   IR Control：The input signal channel can be switched by remote control

|							
0	0	1	1	2	2	3	3
4	4	5	5	6	6	7	7
8	8	9	9	10	A	11	b
12	C	13	d	14	E	15	F

5.2 Nixie tube display instruction.
   When RX and TX display the same value, it builds corresponding IGMP group. RX will output the same A/V signal with the matched TX. One TX can support 16 ways source signals at the most.

6. IP and MAC address setting

System module has equipped HTTP server. It can change system IP and MAC address via webpage. Before building network matrix, the IP and MAC address of TX and RX must be reset. The principle is that, all the RX and TX in the same network matrix must be in the same network segment, the IP and MAC addresses for these RX and TX must be different. TX and RX have a default IP address. TX is 192.168.168.55, RX is 192.168.168.56.After the change, press the system reset button for 5 seconds(the small hole beside of HDMI port) to restore IP and MAC to default factory setting.

Setting procedure as below:

1 Set PC's IP network segment the same with TX/RX's IP segment, like 192.168.168.100. Take win7 for example:
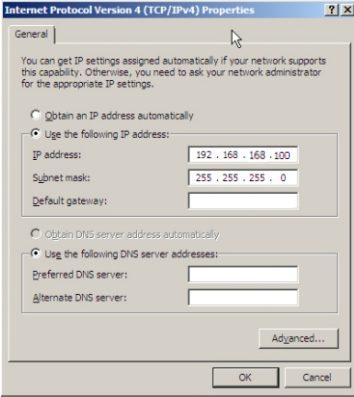
2 Connect PC net port with TX or RX net port directly. Power the system to connect PC and TX or RX through.
3 Input TX(192.168.168.55) or RX(192.168.168.56) IP address to IE address bar and enter into control page. Click system on the page left menu bar, then can chang IP and MAC address in switch information page.

In this control page,users can change"IP address"and "MAC address"only.And please note,all the RX and TX in the same network matrix must be in the same network segment,the IP and MAC addresses for these RX and TX must be different.

4 The TX MAC address (00:0b:78:00:60:01)and RX MAC address(00:0b:78:00:60:02)are defaulted by system.And MAC address is the identifier for every site of internet,it is 6 bytes, RA the registration administration of IEEE assigns the first three bytes to different factories,the last three bytes are assigned by users.MAC address is consist of figures(0~9)and letters(a~f). We do not suggest that users change the first three bytes,the last three bytes can be changed accordingly.

7. RFQ

Q1: TV is black screen and OSD displays " searching TX" on top left corner?
A1: Check TX,LAN switch and network cable connection and make sure all of them are powered on.

Q2: TV is black screen and OSD displays"IP:xxx.xxx.xxx is not my group"?
A2: Check if the RX and TX display the same IGMP group value.

Q3: TV is black screen and OSD displays"Check TX's input signal"?
A3: Check if the TX has HDMI signal input. Change HDMI cable to retest.

Q4: The Lan port yellow indicate led does not light?
A4: Check the network cable quality and connection.

Q5: Video is stuck and unstable?
A5: Check if TX to LAN switch and LAN switch to RX network cable are too long

Q6: Network matrix can not output image normally?
A6: 1) Check if TX and RX IP/MAC address are repeated.
2) Check if Lan switch IGMP function is enabled.

Q7: Multiple RXs receive same IGMP source, RXs can not output audio synchronously?
A7: Restart Lan switch or IGMP source TX to make all RXs receive signal synchronously.

Q8: Have already modified IP address and need to modify again, but forget the modified IP address and unable to enter into products network management page?
A8: Press the system reset button for 5s(the small hole beside of HDMI port) and can restore IP and MAC to default factory setting.

8. SPECIFICATION

Items	Specifications	Note
Power supply	DC5V/1A	2PCS
Support input resolution	480i@60Hz、480p@60Hz、576i@50Hz、576p@50Hz、720p@50/60Hz、1080i@50/60Hz、1080p@50/60Hz；	
Support output resolution	480p@60Hz、576p@50Hz、720p@50/60Hz、1080p@50/60Hz；	
Network cable	UPT/STP cat5e/6	
Network cable length between all connections	CAT5:　　　≤80m CAT5E:　　≤100m CAT6:　　　≤120m	
Lan switch	Support network management function and IGMP/IGMP snooping.Support lacal area network bandwidth≥100M	
Audio format supported	PCM	
Audio sample rate	44.1kHz, 48kHz	
Video compression format	M-JPEG	
Power	Send: 3W	
consumption	Receive: 3W	
dimension	LxWxH: 13x8.5x2.4(cm)	