

## • Important Safety Instructions

1. Please read the user manual carefully before use this product, and keep these instructions.
2. Do not mix up transmitter and receiver before installation.
3. Channel of the transmitter(TX) must be different, otherwise, the system would be breakdown(including transmitter, receiver, IGMP switch etc.).
4. It is advised to set channel of transmitter before access to switch.
5. Follow all instructions.
6. This extender must be installed and operated within the limits of specified operating temperature and humidity.
7. Do not place objects on top of the unit.
8. Do not position the matrix extender near any heating source such as heater, radiator, or direct exposure to sun.
9. Prevent entering of water and moisture into the unit. If necessary, use dehumidifier to reduce humidity.
10. This product must be used with the IGMP switch.
11. Use DC5V/2A power supply only. Make sure the specification matched if using 3rd party DC adapters.

## • Product Introduction

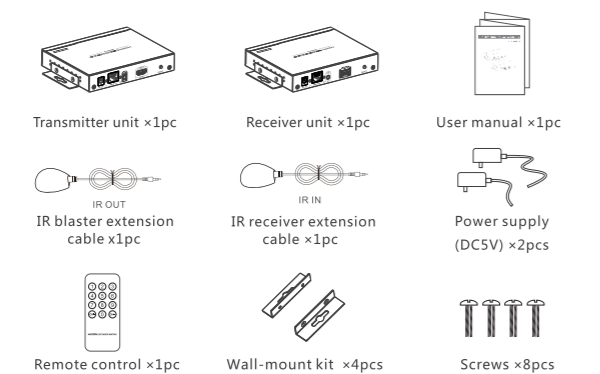
This HDbiT HDMI video matrix over IP includes a transmitter unit(TX) and a receiver unit(RX). It allows for the distribution and switching of high definition video/audio signal by this product and off-the-shelf IGMP switch. It applied advanced HDbiT technology, the resolution supported is up to 4K×2K@30Hz ultra HD. It can also used in a point-to-point connection, the distance is up to 120 meters. It is widely applied in digital signage advertisement, control room, command centers, entertainment and exhibition center, safety monitoring system, etc.

## • Product Features

1. Apply advanced HDbiT over IP technology.

2. Resolution supported is up to 4K×2K@30Hz ultra HD.
3. Transmission distance is up to 120 meters via CAT6.
4. Support IR pass back function to control source device from RX location.
5. Plug and play.
6. Support scalable and flexible input-output matrix configuration, allows 100 inputs to infinite output.
7. Support computer control software to select and switch source device input.
8. Support to select and switch source device input from receiver via remote control and hard button.
9. Support APP control, user can scan, preview, build up their configuration by using a phone/tablet easily.

## • Package Content



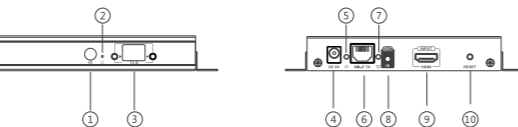
## • Installation Requirements

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 following the standard of IEEE-568B. Transmission length: CAT5 80m/CAT5E 100m/CAT6 120m.

## • Panel Description

### 1. Transmitter unit



- ① IR receiver window: remote control channel
- ② Power indicator
- ③ TX ID: Mark transmitter unit's channel as a number, indicator of the current TX ID number
- ④ DC5V power input
- ⑤ Data transmission indicator
- ⑥ RJ45 signal output
- ⑦ Connection indicator
- ⑧ IR blaster extension cable interface
- ⑨ HDMI signal input
- ⑩ RESET button

### 2. Receiver unit



- ① RX ID: Mark receiver unit as a number, indicator of the current RX ID number
- ② IR receiver window: remote control channel
- ③ Power indicator
- ④ TX CONNECTED: Indicate the input channel as a number, and when the channel of receiver as same as the channel of transmitter, transmission connected
- ⑤ DC5V power input
- ⑥ Data transmission indicator
- ⑦ RJ45 signal input
- ⑧ Connection indicator
- ⑨ IR receiver extension cable interface
- ⑩ HDMI signal output
- ⑪ RESET button

## • Installation and Connection

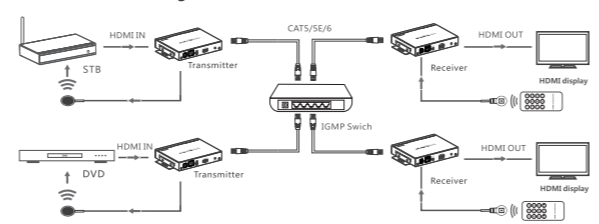
### 1. How to make a CAT5/5E/6 network cable

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 must 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 as close as possible to the IR receiver window of the signal source device.

#### 3.2 IR remote control

Using the IR remote controller to set/select the channel of this HDMI video Matrix

### 4. APP control use guide

#### 4.1 HDbiT Matrix Controller MODE--APP "Matrix controller"

4.1.1 **Android User:** Download the App "Matrix Controller" by your mobile phone from the website:  
<http://www.hdbitt.com/download-matrix/>.

**IOS User:** Download the APP"Matrix Controller" from the APP Store.

4.1.2 Firstly, connect the video matrix controller to the IGMP switch. Then, connect mobile phone/tablet and the video matrix controller via hotspot"MATRIX" with each other(as figure 1, the wifi password is 12345678). At this time, open the downloaded APP"matrix control, will enter to the interface as figure 2, and APP control starts.

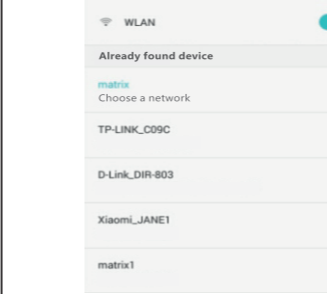


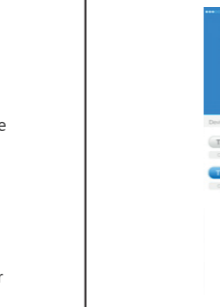
Figure 1

Figure 2

### 4.1.3 APP function

#### 4.1.3.1 Preview

Click " play" button to preview the content of the source device.



#### 4.1.3.2 Edit

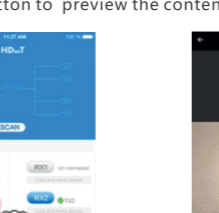
Click the frame under the TX/RX button to edit device name.



Figure 3

### 4.1.4 Push and slide

Drag push button TX and slide to RX, to set up new connection.



### Note:

Please do not use more than one mobile phone/tablet to control the system simultaneously.

### 4.2 Router MODE--APP " Matrix Control Lite"

#### 4.2.1 Android User:

Download the APP "Matrix Control Lite" from google play.

#### 4.2.2 IOS User:

Download the APP "Matrix Control Lite" from APP Store.

#### 4.2.3 Firstly,

connect the router to the IGMP switch. Then, connect mobile phone and the router with each other, open the downloaded APP "Matrix Control Lite" will enter to the interface as figure 3, TX ID, RX ID, TX connected number can be re-set by this APP, also can edit device name for marking.

Tx Device:		Rx Device:	
Name	TX ID	RX ID	Name

Figure 3

## 5. Button control

There is a "TX ID" on TX unit, and there are both " RX ID" and "TX connected" on the RX unit.

Each of them consists of two Nixie tubes and two buttons (beside the Nixie tube), the left button controls the value of the left Nixie tube, and the right one to control the value of the right Nixie tube. The value of each Nixie tube is from 0 to 9, each button is pressed at a time, the number is added one value. For example, the existing value of TX ID is "00" , and press the left button once, also press the right button once, then the value of TX ID is changed to " 11" . When the value of "TX connected" on the RX unit is as same as the value of "TX ID" on the TX unit, a connection built between the TX and RX units.

**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.

## 6. Computer software control use guide

### 6.1 Access to network

Connect your PC/computer with the off-the-shelf IGMP Ethernet switch via a single network cable

### 6.2 PC/computer setting

Change the PC/computer's IP to 192.168.1.xxx (xxx can be 0 to 255) , which as same as the IP segment of TX unit and RX unit.

### 6.3 Web operation

Open application program "HDbiT E-Matrix Control center" ,it displays the interface as Figure 1( Download from the website: <http://www.hdbitt.com/download-matrix/>).

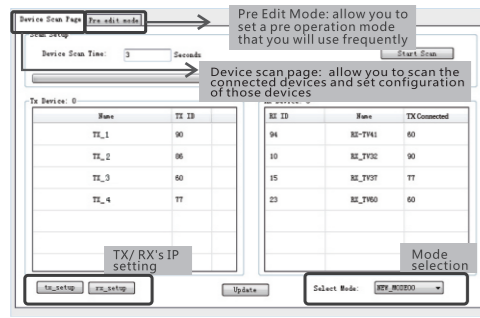


Figure 1

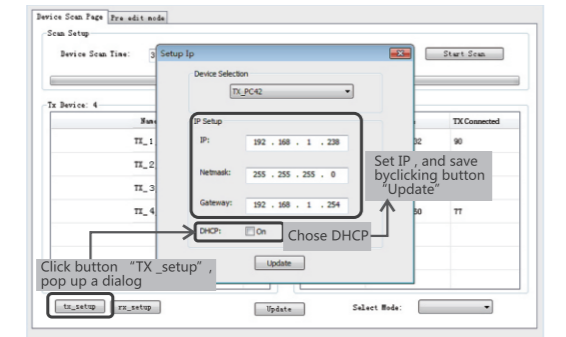


Figure 2

**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

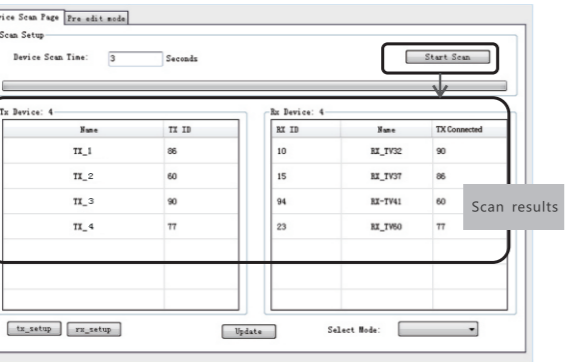


Figure 3

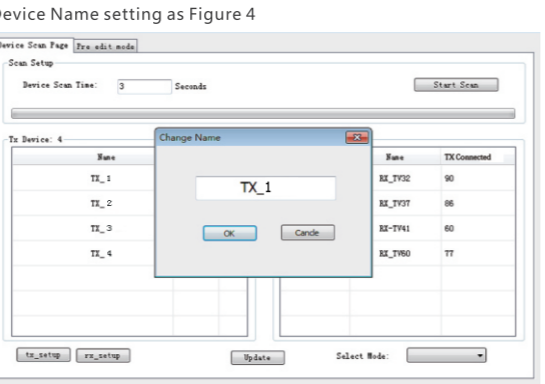


Figure 4

\* Device channel (TX ID) setting as Figure 5

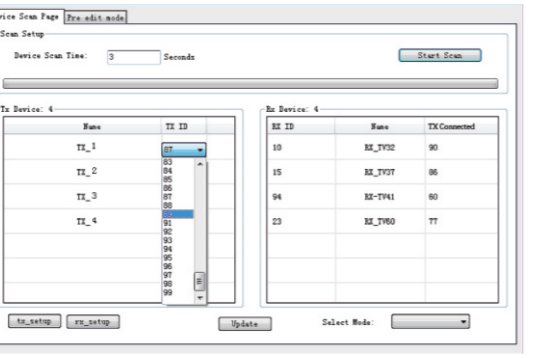


Figure 5

Click button "Update", new configuration saved

**Pre-operation mode editing**, show as Figure 6

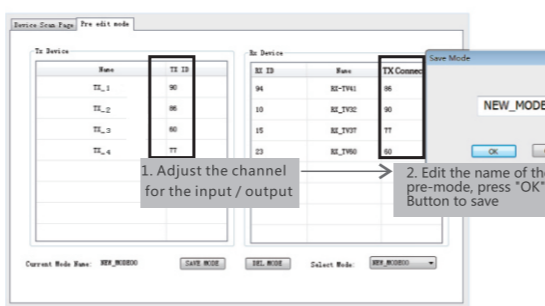


Figure 6

**Operation mode selection setting**

Follow up Figure 7, Click button "Select Mode", to choose the mode needed.

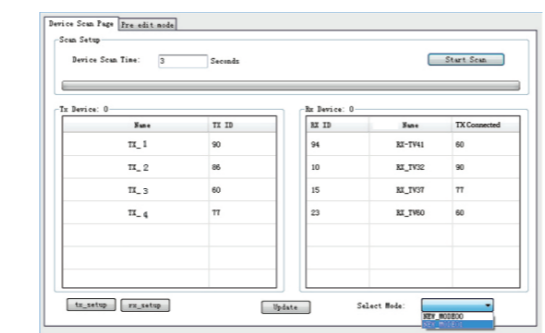


Figure 7

**FAQ**

- Q: TV display "Waiting for connection" on the right corner?  
A: 1) Please check if the cable is correct and the length is within the range this unit supported.  
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 the switch is with IGMP function, and the IGMP function is open.
- Q: Black screen or no image on displays?  
A: 1) Cut 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	HDMI 1.4, compliant to HDCP
Network bandwidth	28Mbps
HDMI input resolution supported	480i@60Hz, 480p@60Hz, 576i@50Hz, 576p@50Hz, 720p@50/60Hz, 1080i@50/60Hz, 1080p@50/60Hz, 4Kx2K @24/25/30Hz
Audio format supported	L/R stereo audio
TMDS signal	0.7~1.2Vp-p
DDC signal	5Vp-p
Remote control	Support
IR passback	Supports 20~60KHz IR devices
APP control	Support APP control, user can scan, preview, build up their configuration by using a phone/tablet easily, OS system supports IOS and Android
Matrix configuration	Up to 100 source signals can be connected and switched to infinite output
Voltage/Current	5V/2A
Power consumption	TX≤6W ; RX≤5W
Weight	TX: 320g ; RX: 310g
Dimensions(LxWxH)	164×107.6×23.6mm
Working temperature	0~60°C
Storage temperature	-20~70°C
Humidity	0~95%(no condensation)
Color	Black

**Disclaimer**

The product name and brand name may be registered trademark of related manufactures. ™ and ® may be omitted on the user manual. The pictures in this user manual are just for reference. The terms HDMI, HDMI High-Definition Multimedia Interface, and the HDMI Logo are trademarks or registered trademarks of HDMI Licensing Administrator, Inc. We reserve the rights to make changes without further notice to a product or system described herein to improve reliability, function or design.

**Directive WEEE**  
This product is covered by the WEEE II Directive (Directive 2012/19 / EU). It should not be thrown in the trash or dumped. Substances in the product may be hazardous to human health or the environment. Disposal may be done by returning the product to your dealer or leaving it a collection point provided for this purpose.

**CE**  
This product bears the CE mark which certifies its conformity with the directives LVD 2014/35/EU ; EMC 2014/30/EU and RoHS 2011/65/EU. Compliance has been assessed in accordance with applicable standards in effect.

**TECHNICAL SUPPORT (OUTSIDE FRANCE)**  
• Technical self-service portal GIGAMEDIA:  
<http://support.gigamedia.net>



**USER MANUAL**



**HDbitT HDMI Extender Matrix 4K 30 Hz**  
GGM HDO1P4K3MR



[www.gigamedia.net](http://www.gigamedia.net)

# MANUEL UTILISATEUR



## Récepteur Matrice HDMI 4K 30 Hz

GGM HDOIP4K3MR




### Avertissement

Le nom du produit et le nom de la marque peuvent être des marques déposées de fabricants liés. <sup>TM</sup> et <sup>®</sup> peut être omis sur le manuel utilisateur. Les images dans ce manuel utilisateur sont juste pour référence.

Les termes HDMI, HDMI High-Definition Multimedia Interface et le logo HDMI sont des marques commerciales ou des marques déposées de HDMI Licensing Administrator, Inc.

Nous nous réservons le droit d'apporter des modifications sans préavis à un produit ou système décrit ici pour améliorer la fiabilité, la fonction ou conception.

### Directive DEEE

 Ce produit entre dans le cadre de la directive DEEE II (Directive 2012/19/UE). Il ne doit pas être jeté à la poubelle ni mis en décharge. Les substances contenues dans le produit peuvent être dangereuse pour la santé humaine ou l'environnement. L'élimination peut s'effectuer en renvoyant le produit à votre revendeur ou en le déposant dans un lieu de collecte prévu à cet effet.




Ce produit porte le marquage CE qui atteste de sa conformité aux directives LVD 2014/35/UE ; CEM 2014/30/UE et RoHS 2011/65/UE.

La conformité a été évaluée selon les normes applicables en vigueur.

**ASSISTANCE TECHNIQUE**

Assistance technique GIGAMEDIA sur internet :  
<http://support.gigamedia.net>

Assistance technique France GIGAMEDIA par téléphone  
**0899 250 013**  
(0,50 € TTC / min depuis un poste fixe)  
Du lundi au vendredi entre 09h-12h et 14h-17h



### Caracteristiques

Type HDMI	1.4 compatible HDCP
Bande passante	28 Mbps
Résolutions Supportées	480p@60Hz, 576p@50Hz, 720p@50/60Hz, 1080i@50/60Hz, 1080p@50/60Hz
Format audio	Stéréo
Signal TDMS	0.7-1.12Vp-p
Signal DDC	5Vp-p
Télécommande	Supportée
IR passback	Fréquence IR 20-60KHz
Contrôle APP	Se configure avec software Windows
Configuration matrice	Jusqu'à 100 sources et RX illimités
Alimentation	5V 2A
Consommation	6W (Tx) et 5W (Rx)
Poids	320 g chacun
Dimensions	164 x 107 x 24 mm
Température de fonctionnement	0 ~ 60°C
Température de stockage	-20 ~ 70°C
Humidité	0 ~ 95% (sans condensation)
Couleur	Noir

### FAQ

- Q: La TV affiche "Waiting for connection"**  
R: • Assurez vous que les longueurs de câble soient correctes.  
• Assurez vous d'être sur les meme canaux.  
• Assurez-vous que les Tx ne soient pas sur les memes canaux
- Q: La TV affiche "Please check the transmitter input signal"**  
R: • Verifiez que le Tx soit bien raccordé a une source HDMI.  
• Essayez de raccorder directement la source HDMI sur la TV pour vérifier la source

- Q: L'affichage n'est pas stable**  
R: • Verifiez que votre LAN gère l'IGMP

- Q: L'affichage n'est pas stable**  
R: • Essayez avec différentes résolutions

Cliquez sur "Update" nouvelle configuration sauvegardée, voir image 6:

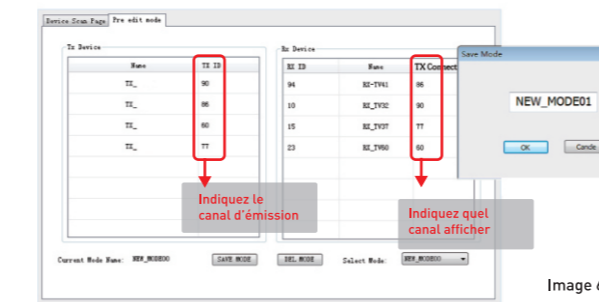


Image 6

Configuration du nom du périphérique:

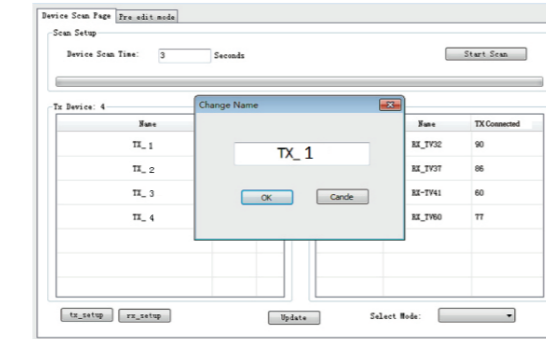


Image 4

Selection de mode:  
Cliquez sur "select mode" comme sur l'image 7:

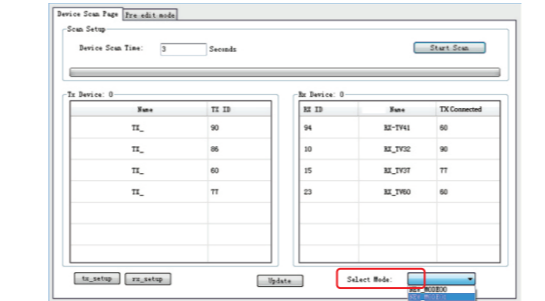


Image 7

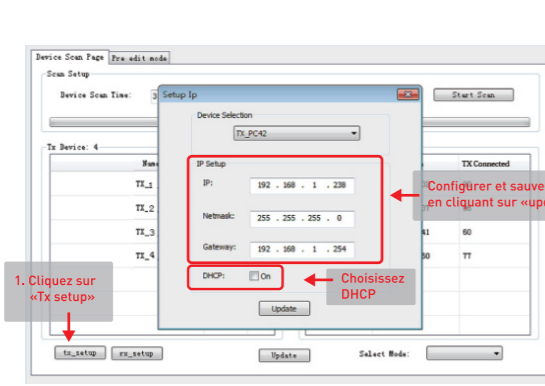


Image 2

Configuration de l'ID du Tx:

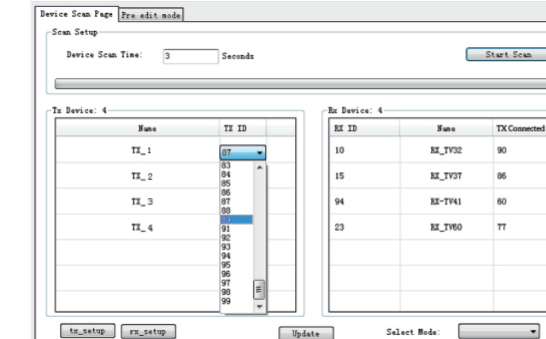


Image 5

Configuration et scan des peripheriques Tx (même chose pour les Rx)

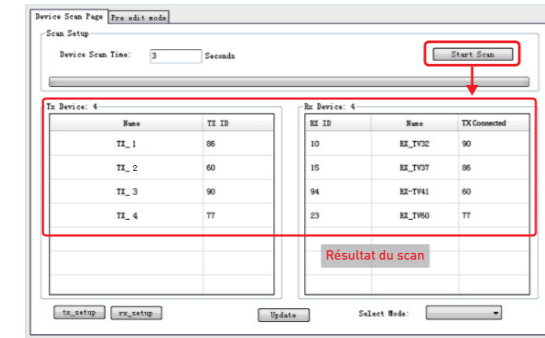


Image 3

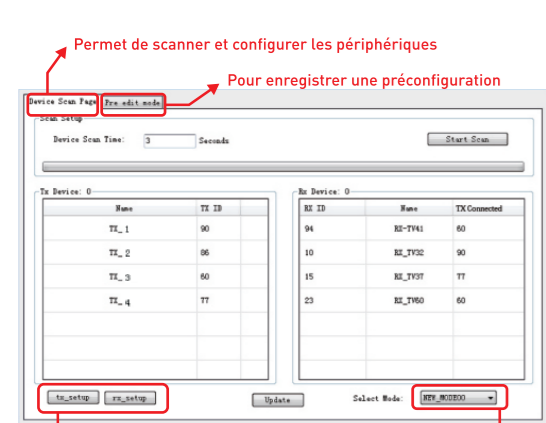


Image 1

### Configuration IP :

Les Rx et Tx ont leur propre adresse IP :  
Tx: 192.168.1.238  
Rx: 192.168.1.239

En general, il n'est pas nécessaire de les modifier. Suivez les procédures suivantes afin de les modifier

## Instructions de sécurité:

- Merci de lire ce manuel avant utilisation des produits
- Attention de ne pas mélanger les Rx et les Tx avant l'installation
- Les canaux des Tx doivent être différents
- Il est conseillé de configurer les canaux avant le raccordement au switch
- Installez le matériel dans un lieu conforme aux préconisations
- Ne rien poser sur les produits
- Ne pas positionner les produits à proximité d'une source de chaleur.
- Ne pas utiliser dans un environnement humide
- Doit être raccordé à un switch gérant l'IGMP
- Utilisez une alimentation 5V 2A. assurez vous des spécifications si vous utilisez un adaptateur tierce.

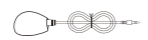
## Informations du produit

- Matrice HD Bit T Rx ou Tx
- A raccorder sur switch IGMP ou en point à point
- Résolution 4K 30 Hz max
- Distance jusqu'à 120M en point à point.
- Supporte l'émission / réception des IR
- Plug & Play
- Jusqu'à 100 Tx et Rx ilimité
- Controlé par un software

## Contenu du carton:



1 récepteur (Rx) ou  
1 émetteur (Tx)



Récepteur IR (avec Rx)  
Emetteur IR (avec Tx)



Kit montage  
mural x2pcs



Manuel utilisateur  
x1pc



Alimentations  
(DC5V) x2pcs



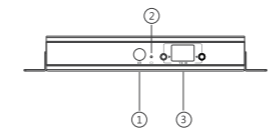
Vis  
x8pcs

## Prérequis d'installation:

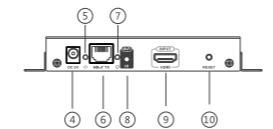
- Source en HDMI
- Afficheur avec entrée HDMI
- Câble réseau CAT5E UTP Minimum en IEEE-568B  
Distance de transmission: CAT5e: 100M CAT6: 120M.

## Description des panneaux:

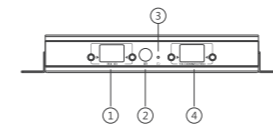
### 1- Emetteur (Tx)



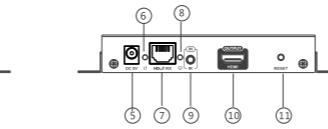
- 1- Panneau de reception IR
- 2- Indicateur de mise sous tension
- 3- TX ID: identification de l'émetteur
- 4- Entrée alimentation
- 5- Indicateur de transmission de données
- 6- Sortie RJ45
- 7- Indicateur de connexion
- 8- Entrée extension IR
- 9- Sortie HDMI
- 10- Bouton RESET



### 2- Receveur (Rx)



- 1- RX ID: Identification du recepteur
- 2- Panneau de reception IR
- 3- Indicateur de mise sous tension
- 4- TX CONNECTED: Indique l'identification de l'émetteur d'entrée.
- 5- Entrée Alim
- 6- Indicateur de transmission de données
- 7- Entrée RJ45
- 8- Indicateur de connexion
- 9- Entrée Extention IR
- 10- Sortie HDMI
- 11- Bouton Reset



## Installation:

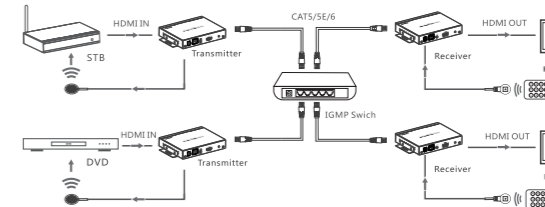
Utilisez des câbles à la norme IEEE 568B.

## Connexion en point à point:



## Installation:

### Connexion en matrice:



### Utilisation des IR:

Brancher le récepteur IR sur le TX et l'émetteur sur le RX à proximité du panneau d'entrée IR de l'afficheur.