Bi-Directional Wireless IR Repeater System User Guide

PRODUCT FEATURES:

1. It works not only as a IR Repeater but also works as a wireless IR Extender
2. Radio Frequency (RF): 915 MHz
3. RF working Range up to 100+ meters in Open Space.
4. IR carrier tuning freq.: 20~ 60KHz
5. Compliant with CE/FCC EMC regulation
6. High receiving sensitivity (-90dBm).
7. Bi-Directional full band IR Control
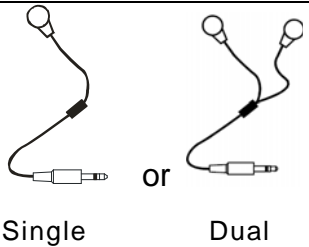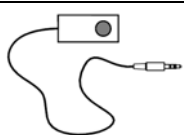8. Channel Pairing.

SPECIFICATIONS

IR:

1. Compatible with all Universal full band carrier frequency infrared Remote (20KHz to 60KHz)
2. Better IR receive sensitivity (distance), over 7 meters

RF:

1. Long range RF transmission over 100+ meter in open space
2. Use 915MHz RF technology to avoid interference in crowded 433MHz RF activities
3. Bi-Directional full band IR Control
4. FSK modulation:
   - Better signal sensitivity than ASK modulation
   - Better Anti RF-interference than ASK modulation
   - Better performance in noise suppression
5. Digital data encryption function ensures safety and reliability
6. Support:
   - One receiver to one transmitter. (Point to Point)
   - One receiver to multi transmitters, (Point to Group)
   - Multi receivers to one transmitter. (Group to Point)
   - Multi receivers to multi transmitters. (Group to Group)
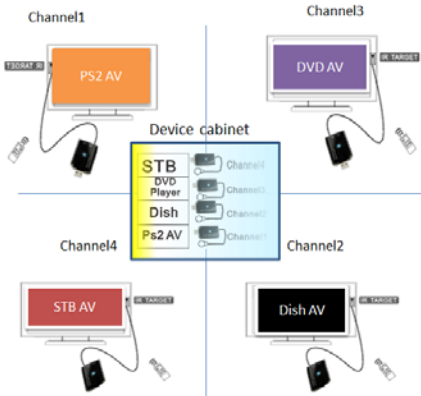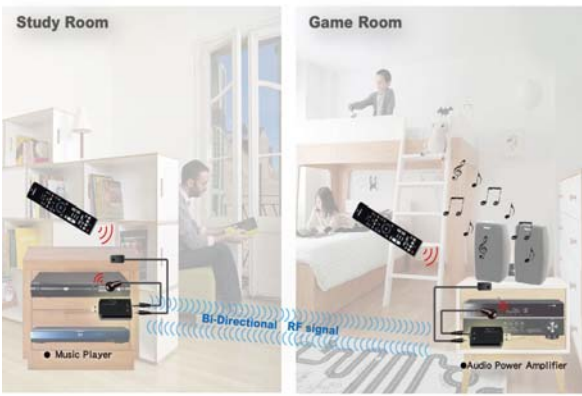7. Channel Pairing/ Channel addressable grouping

Kits Includes:

IR Emitter cable	IR Target cable	2x Bi-Directional Wireless USB IR Dongle	User manual
Single or Dual		Bi-Direction Wireless IR Repeater	

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Applications

IR Repeater	Broadcasting Control
Addressable Control	**Bi-Directional Control**

Installation steps:

Application1: Single dongle IR Repeater (without RF)

Step1: Connect with the power

Place the dongle (one piece of wireless USB IR Dongle) on the USB power adaptor.

OR place the dongle (wireless USB IR Dongle) to the USB jack in back of an home equipment (TV, CD, etc.).

Step2: Connect the cables

Plug-in the IR target cable to the "IR TARGET" of the dongle that receive IR signals from the Remote Control.

Plug-in the IR emitter cable to the "IR EMITTER" of the dongle that is near the devices you want to control

Step3. Adjust the IR TARGET and IR EMITTER

Place the "IR TARGET CABLE" at your desired location, near the devices you want to control

Aim the IR EMITTER EYE on each device (IR RECEIVER EYE) you want to control

Step4: Have fun with the wireless IR control

Power on and enjoy.

Application2: Wireless IR Broadcast Control

Step1: Connect dongles with the USB power

Place the dongles. One dongle at local side (in the same room as the Remote Control) and the

other dongles at Clint sides (near the devices you want to control. Multiple dongles for multiple room). Connect the dongles with USB power adaptors, or insert the dongle (wireless USB IR Dongle) to the USB jack in the back of a device.

Step2: Connect the cables

Plug-in the IR target cable to the "IR TARGET" of the dongle that receive IR signals from the Remote Control.

For each dongle at a client site, plug-in the IR emitter cables to the "IR EMITTER" of the dongle that is near the devices you want to control

Step3. Adjust the IR TARGET and IR EMITTER

Place the "IR TARGET CABLE" so that it can be directly aimed with the Remote Control.

Place the "IR EMITTER CABLE" on the devices you want to control

Aim the IR EMITTER EYE on each device (IR RECEIVER EYE) you want to control

Step4: Make sure all dongles use the same RF channel. Use the Pairing switch to select RF channel if necessary.

Step5: Have fun with the wireless IR control Power on and enjoy.

[NOTE: Due to IR code characteristics, multiple Remote Controls with different brand can be used for this setup to control its target devices in different room.]

Application3: Addressable Control (multiple channels for multiple groups)

Step1: Connecting with the power

Place the dongle at local side in the same room as the Remote Controls. Use as many dongles as how many groups that are needed for setup. They may not be in the same room. Place the other dongles at Clint sides, near the devices you want to control. Multiple dongles for multiple rooms. Connect the dongles with USB power adaptors, or insert the dongle (wireless USB IR Dongle) to the USB jack in the back of a device.

Step2: Connecting the cables

Plug-in the IR target cable to the "IR TARGET" of the dongle that receive IR signals from the Remote Control.

Plug-in the IR emitter cables to the "IR EMITTER" of the dongle that is near the devices you want to control.

Step3. Adjustment the IR TARGET and IR EMITTER

Place the "IR TARGET CABLE" so that it can be directly aimed with the Remote Control.

Place the "IR EMITTER CABLE" on the devices you want to control

Aim the IR EMITTER EYE on each device (IR RECEIVER EYE) you want to control

Step4: Adjust the Pairing switch

Based on your grouping idea, adjust all Pairing switch on the dongles you want to control. Both at the device sides and the Remote Control sides.

Step5: Have fun with the wireless IR control

Power on and enjoy.

Application 4 : Bi-Directional Control

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Step1: Connecting with the power
 Place the dongles in two rooms. Each room may have an equipment to be controlled from the other room and a Remote Control to control a target equipment in the other room. Connect the dongles with USB power adaptors, or insert dongle (wireless USB IR Dongle) to USB jack in the back of a devices.

Step2: Connecting the cables
 For each dongle in each room, plug-in the IR target cable to the "IR TARGET" and IR emitter cables to the "IR EMITTER".

Step3. Adjustment the IR TARGET and IR EMITTER
 Place the "IR TARGET CABLE" so that it can be directly aimed with the Remote Control.
 Place the "IR EMITTER CABLE" on the devices you want to control
 Aim the IR EMITTER EYE on each device (IR RECEIVER EYE) you want to control

Step4: Adjust the Pairing switch
 Adjust all Pairing switch and make sure both IR Wireless Repeater dongles are set to the same channel.

Step5: Now the dongle can forward the Remote Control signal to the other room and send IR signals that is received via the RF from the other room. Power on and enjoy.

Trouble Shooting

Case	Phenomena Description	Trouble shoot
1	The distance between remote control and IR Receiver is short (perhaps less than 5 Meters)	Please make sure the battery in the remote control is sufficient. (Because the working distance between IR Receiver and remote control is determined by the IR signal power of your remote controller. Try to replace the old battery with the new battery in your remote controller.
2	Target device does not work with your IR Kit	Usually, this kit should work perfectly across various brand of remote controller. In rare case, if you encounter this problem, please report the model number for your device to us. Customer service will take care of you.
3	I have connected the way as the user manual said, but still cannot get this kit to work.	Please check the material of your cabinet. If your cabinet is made by metal, Radio Frequency may not pass through. We recommend to relocate our device outside of the cabinet, and make sure Radio Frequency can function as the product is designed.
4	In manual, it said it can work "within or over 100 meters open space", but why it may just work 50 Meters for me.	"Open space" means there's nothing between "IR Receiver" and "IR Emitter". So, for the RF distance between "IR Receiving unit" and "IR Emitter unit" could be reduced by wall, cabinet, furniture, etc.