TSV-EX22
HDMI Extender over Ethernet

CE RoHS

FEATURES

- Extends 1080p HDMI signals up to 120m over a single UTP Cat5e/6 cable
- Support Point-to-Point, Point-to-Many and Many-to-Many network configuration
- HDCP compliant
- Can be cascaded for many layers by adding more Ethernet switches
- With wideband IR (38-56kHz) control to the source
- Support TCP/IP protocol
- With mounting ears

SPECIFICATIONS

Operating Temperature Range	-5 to +35℃(+23 to +95℉)
Operating Humidity Range	5 to 90%RH (No Condensation)
Input Video Signal	0.5-1.0 Volts P-P
Input DDC Signal	5 volts p-p(TTL)
Support Video Format	DTV/HDTV:480i/576i/480P/576P/720P/1080P
Video Output	HDMI
Transmission Distance	1080P 8-bit 120m(Maximum) over single CAT5E/6 /24AWG/Solid
Power consumption	TX:3watts; RX:3watts((Maximum)
IR Frequency	38kHz-56kHz
Dimension (L×W×H)	103.5x93.5x24.6mm
Net Weight	Receiver:220g,Transmitter:220g
TX	Default IP address:192.168.168.55 MAC address:00:0b:78:00:60:01
RX	Default IP address:192.168.168.56 MAC address:00:0b:78:00:60:02

Note1: Specifications are subject to change without notice. Mass and dimensions are approximate.
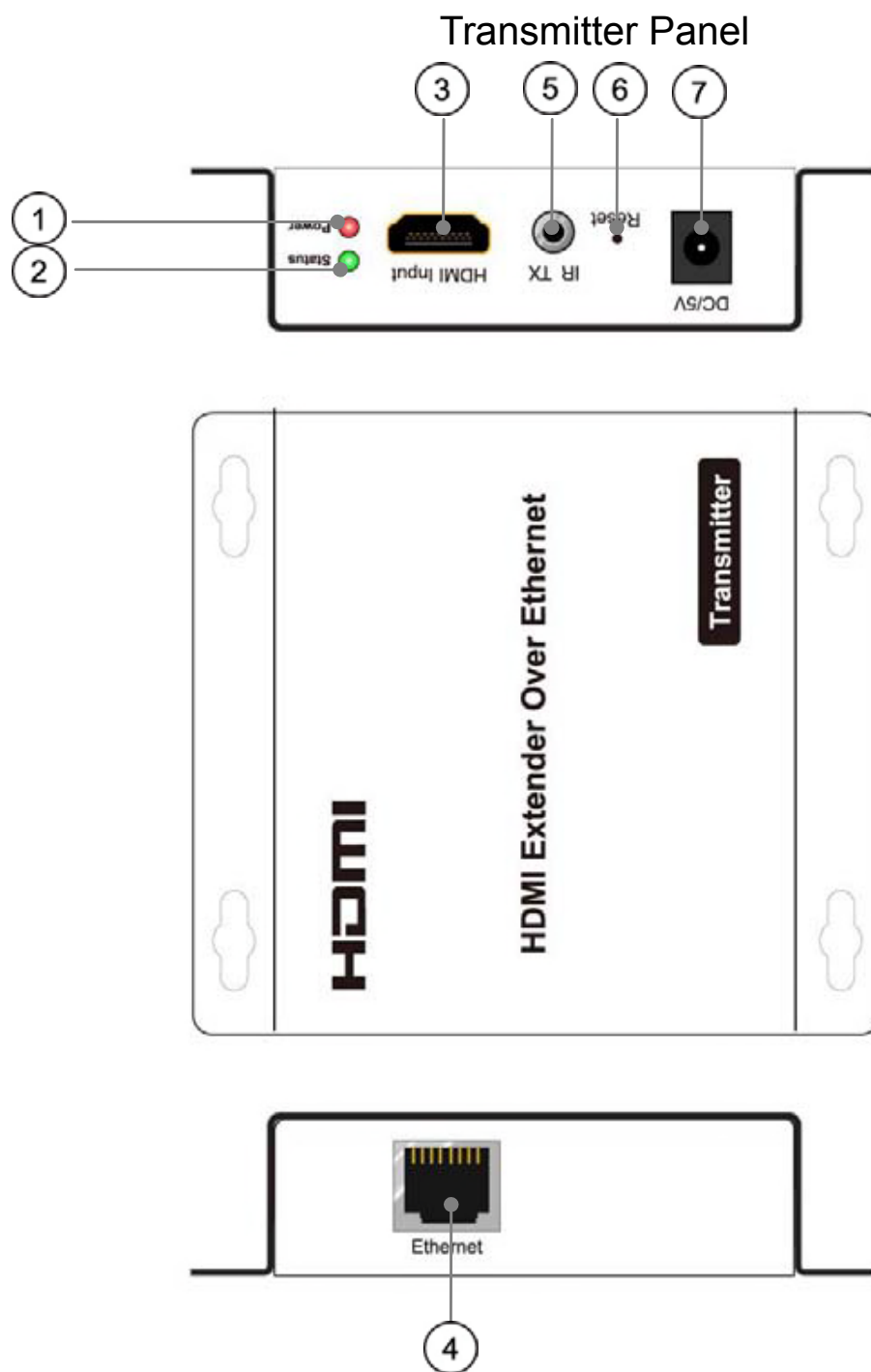Note2: one TX to many RX or many TX connect to many RX, IP and MAC address must be different.

PACKING CONTENTS
1) Main Unit. Transmitter & Receiver
2) Power adapter DC 5V/1A x2 PCS
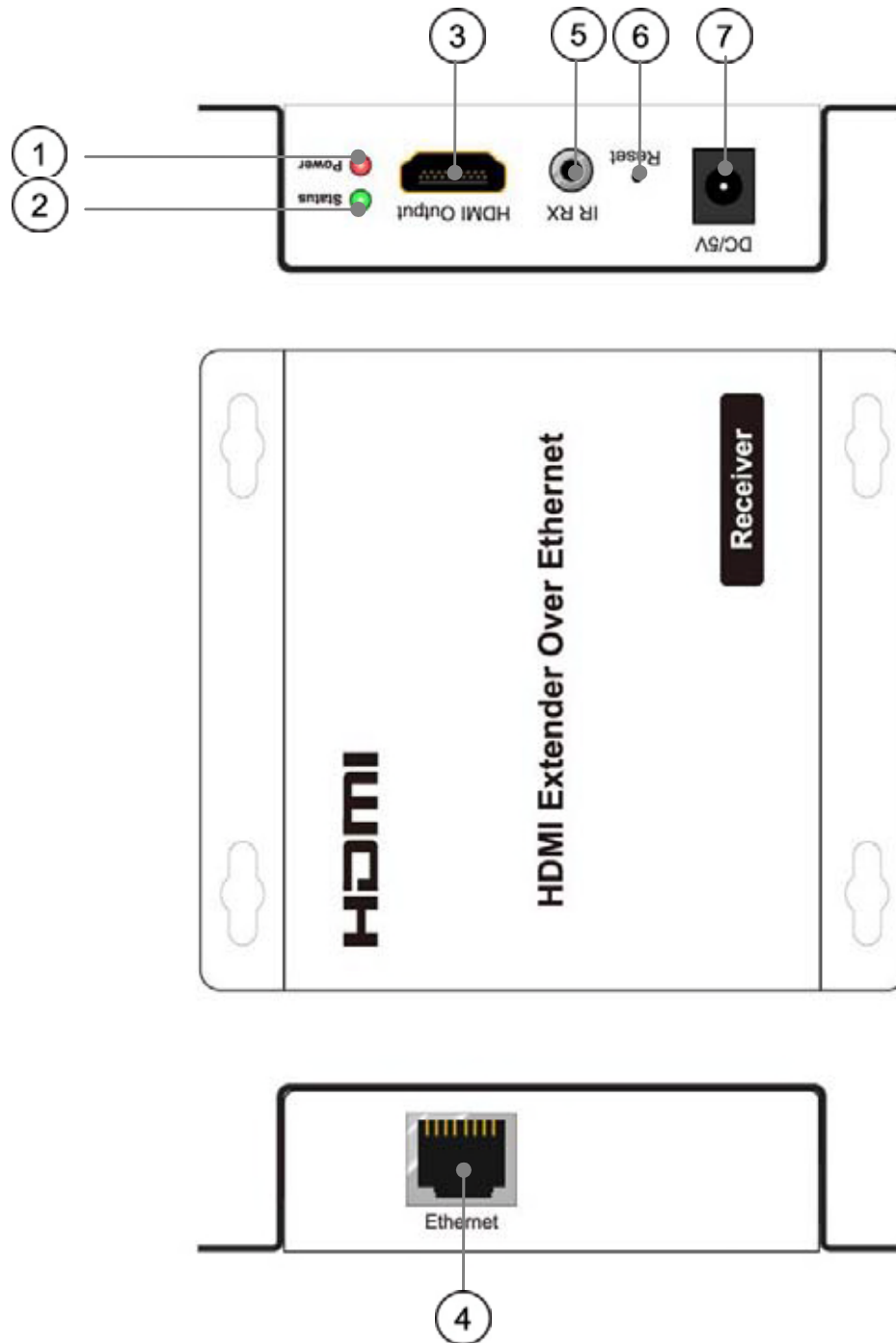3) IR-TX cable & IR-RX cable
4) Operating Instructions

PANEL DESCRIPTIONS

Transmitter Panel

①   Indicator of power input

②   Status of signal connection

③   HDMI input

④   Ethernet port

⑤   IR-TX port

⑥   Reset button

⑦   Power input port

Receiver Panel

①   Indicator of power input

②   Status of signal connection

③   HDMI output

④   Ethernet port

⑤   IR-RX port

⑥   Reset button

⑦   Power input port

CONNECTING AND OPERATING

1) Connect the HDMI signal source (Such as DVD, STB etc) to HDMI Transmitter.
2) Connect CAT5e or 6 cables to both the Ethernet of the transmitter and Ethernet port of the Receiver.   (The cables must follow the standard of EIA-TIA 568B).
3) Connect the HDMI display (Such as HD-LCD, HD-DLP) into the Receiver.
4) Connect the power supply into Power port.
5) Connect the IR TX cable into IR TX port on the back panel and affix the emitter onto the source IR windows.
6) Connect IR-RX cable into IR-RX port on the receiver and affix the IR receiver in direct line of site with the handheld remote control. It is recommended to affix the receiver on the display frame /bezel or the display stand.
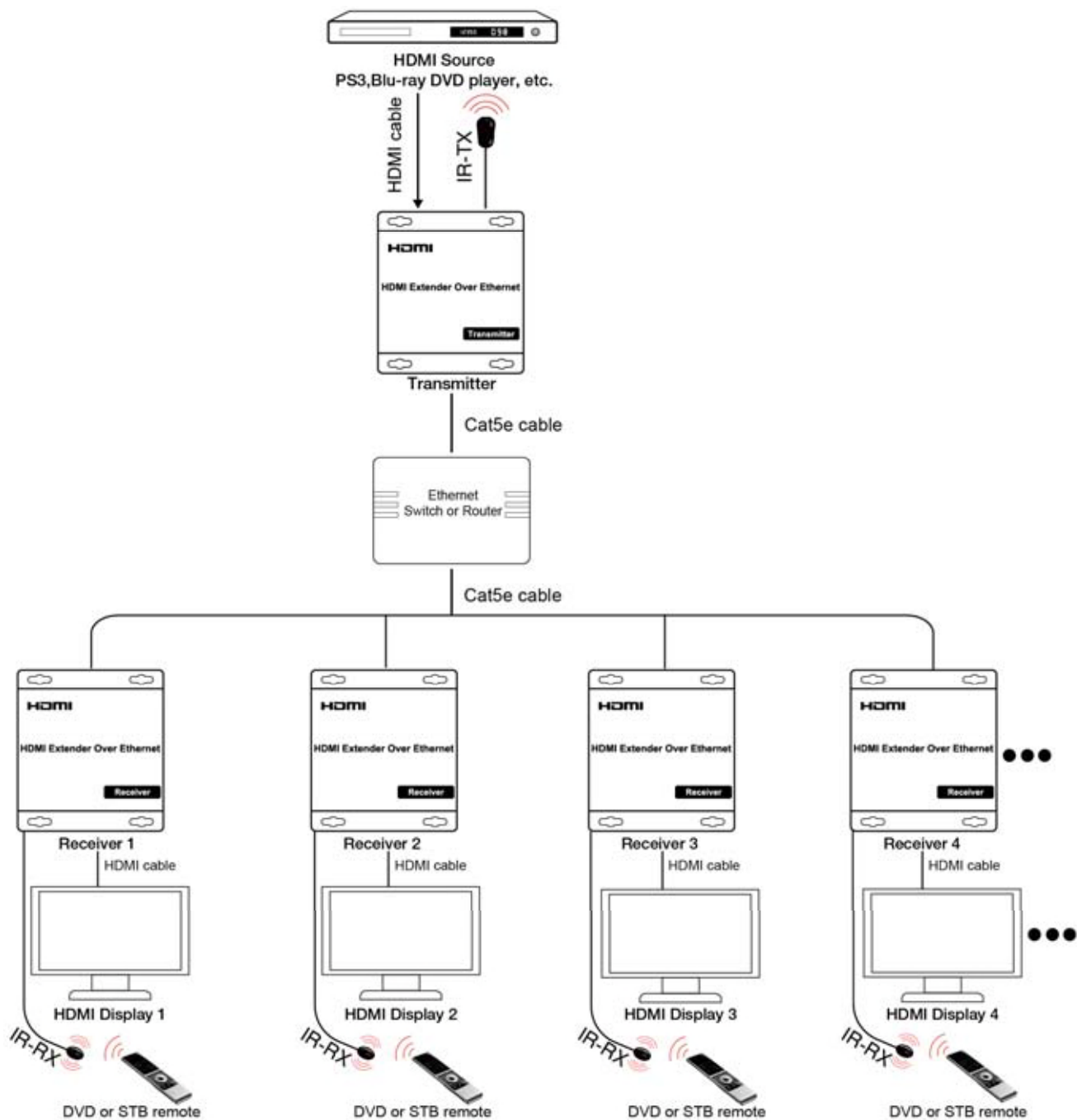
Attention: Insert/Extract cables gently.

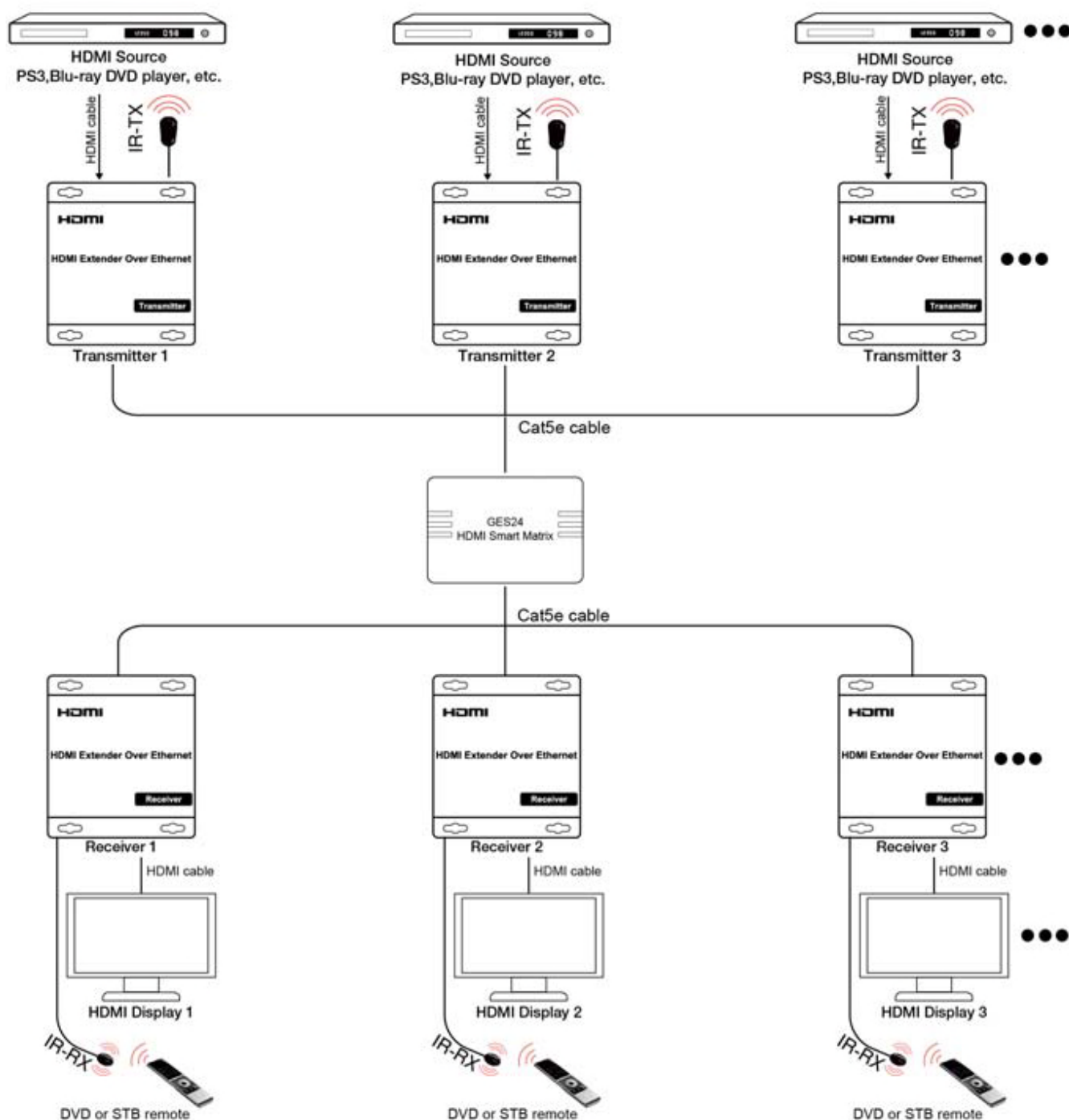## TYPICAL APPLICATION

1) One to One
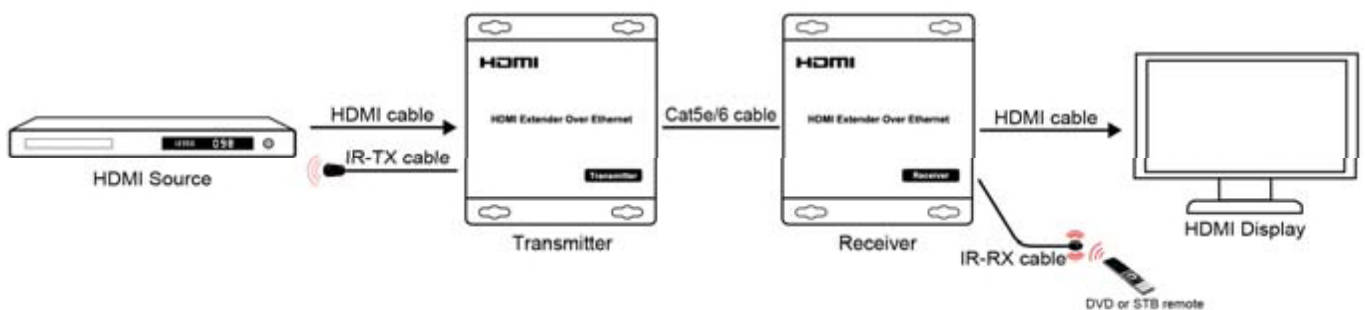
2). One to many

![Note icon] Note **Connect HDMI Transmitter port and Receiver ports to the Ethernet Switch**

3). Many to many

Note

1. Connect HDMI TX ports with GES24 port, also connect HDMI RX ports with GES24 ports. (GES24 is a specified Vlan switch for this extender).
2. A HTTP server is embedded in TX and RX, you can setup IP address for RX via web browser. Please refer to "Setup HDMI TX and RX" in page 8.

Setup HDMI TX and HDMI RX

A HTTP server is embedded in each TX and RX. you can setup IP address for HDMI extender via web browser.

The default IP address of the TX is 192.168.168.55,　MAC address is: 00:0b:78:00:60:01.

The default IP address of the RX is 192.168.168.56,　MAC address is: 00:0b:78:00:60:02.

Step 1: Assign the PC (or laptop) IP address on the computer : "Control Panel"→" Network Connections"→"Local Area Connections Status"→"Properties"→"Internet Protocol (TCP/IP)", Type the IP address field with 192.168.168.11 (0-255) and Subnet mask with 255.255.255.0.　After that press OK to save the configuration.

Note: The IP address of PC should be different from the IP address of TX and RX.

Step 2: Use an Ethernet Cable to connect the PC (or laptop) and the extender. the power LED for the extender is red and the status LED becomes green.

Step 3: please Ping the connected device through the sequence on computer: "Start"→ "Run"→ input "CMD"→ input "ping 192.168.168.55" for TX or input "ping 192.168.168.56" for RX, you will receive the reply if the connection is established.

Step 4: Login in IE :192.168.168.55 (default IP for TX) or 192.168.168.56(default IP for RX), You can setup IP address, subnet mask, gateway, and MAC address for the TX and RX.

Please set IP address for each TX and each RX, IP:192.168.168.XX (XX:1-255. all IP address for TX and RX must be different .

Please set MAC address for TX and RX, MAC:00:0b:78:XX:XX-XX (XX:01-FF), The MAC address for each TX and each RX must be different .

Step 5: After click "Apply" button, the green LED light on the device will go out, you have successfully set IP address for TX and RX now.

Note: if you need to restore the device to it's factory default settings, please power on the device, the red light becomes lighting, waiting about 10 seconds, the green LED light starts working, at this time to press the reset button about 5-10 seconds, then the green light will go out, you have successfully restored IP address to factory IP address now.