VIP-200 II

PureStream

Video over IP Extender and Matrix System

Quick Start Guide

Contents

What is in the box

Transmitter kit

1x Transmitter (VIP-200 II TX)
1x Power Adapter
1x Infrared Receiver

Receiver kit

1x Receiver (VIP-200 II RX)
1x Power Adapter
1x Infrared Emitter

HDMI Transmitter   HDMI Receiver

VIP200H-TX   VIP200H-RX

Rack Mount Option Plates

VIP200 II II-TX-RACK3
VIP200 II II-RX-RACK3

Overview

The VIP200 II series allows point-to-point (extender), point-to-many (distribution), many-to-point (switching), and many-to-many (matrix) configurations. <u>The VIP200 II series is set to work out of the box as a point-to-point, or point-to-many system</u>, no configuration is necessary. For point to many configurations, simply plug them together through a network switch using CAT5e or better cable.

The VIP200 II series covers all three modes of addressing.

Auto IP Addressing

The VIP200 II system default configuration provides automatic IP addressing in the 169.254.xxx.xxx range. The Auto IP method provides instant and easy setup and operation of the VIP200 II devices when a specific manual IP address method is not required, and DHCP is not required.

Manual IP Addressing (recommended)

The VIP200 II device IP addresses can be configured manually. Manual IP addressing is utilized when the network is not DHCP, and the Auto IP range 169.254.xxx.xxx does not work with the current network, or the intended design. These settings are normally done prior to adding on to a network. Please see the 'Setting Devices for Manual IP Addressing" in this manual.

DHCP Addressing

The VIP200 II device IP addresses can be configured to accept IP addresses using DHCP. Using our simple software application to identify the devices, you can then access their built-in web page interface to change the devices to DHCP IP mode.

NOTE: Because transmitters create continuous streaming traffic of video on the network, it is recommended when possible to create your IP video network independent of your data network. Use of gigabit switches with jumbo frame and IGMP support are required for both independent IP video networks, and cases where IP video systems are included within your data network.

One Transmitter to Multiple Receiver Setup (point-to-many distribution)

Transmitter

Network Switch

Receiver

Receiver

Example Application – One-to-Many
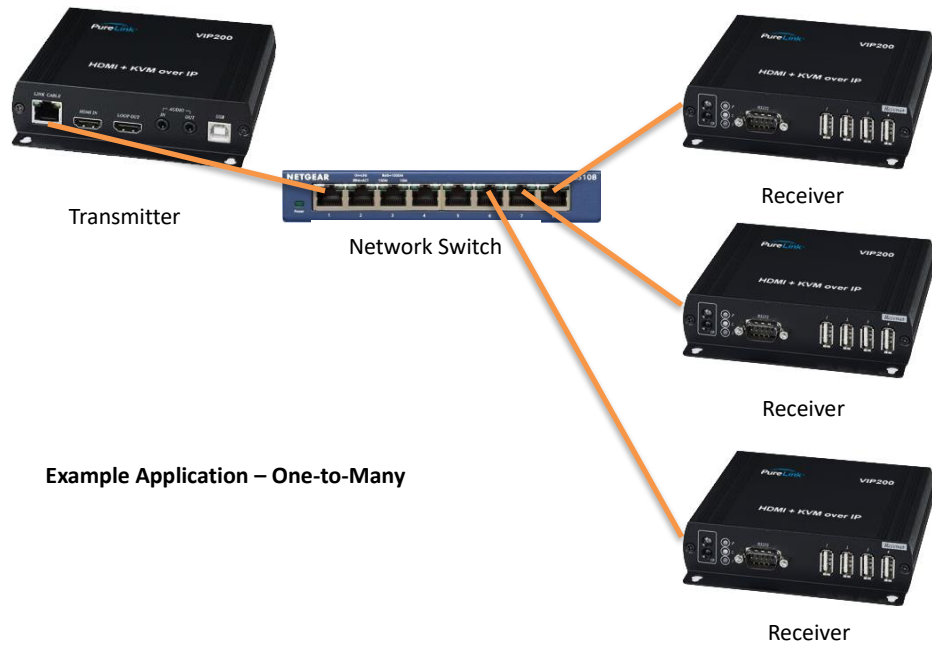
Receiver

Point-to-many connection via CAT5e or better cable (Auto IP mode and CAT6a cable recommended)

VIP200 II transmitters and receivers ship in Auto IP mode, which allows them to discover each other with no configuration required. While it is possible to reconfigure the transmitter and receiver to Manual IP or DHCP IP mode, there is no value to making these changes in a point-to-many configuration, unless you need them to be on an existing network

- Connect the transmitter to your network switch
- Connect your receivers to the network switch
- Connect your source to the input of your transmitter
- Connect a display to the output of each receiver
- If desired, connect your confidence monitor to the loop out of the transmitter
- Connect the power adapters for each unit and apply power. The system will go through a normal boot up sequence that takes approximately ten seconds to display the image.

KVM Operation

The receiver has four USB ports, the first port operates at 1.1 speeds, and the remaining ports operate at 2.0 speeds. <u>Please use ports 2,3 or 4 when using a mouse or keyboard via USB</u> to ensure ultra-low latency. All receivers are by default enable to connect via USB to the transmitter. You can disable the USB for each receiver if desired using our utility software, or from the OSD.

Typical reference streaming rates

Resolution (@60Hz)	Average Bandwidth (Mbps)
1080p	77 (24 ~ 91)
720p	46 (29 ~ 150)
480p	63 (36 ~ 73)
1600x1200 (UXGA)	59 (24 ~ 73)
1280x1024 (SXGA)	58 (31 ~ 76)
1024x768 (XGA)	118 (56 ~ 138)
800x600 (SVGA)	83 (64 ~ 107)

Use of USB may add up to 50 mpbs to stream rate, depending on the USB device(s).

Remote Control (optional)

Initial setup of remote control

NOTE: In point-to-many configurations, many of the remote functions are not valuable or applicable, as they are meant for managing multiple transmitters or receivers.

A remote being used for the first time, or after battery replacement, needs to be assigned an ID

The universal ID that will control all receivers is 8. Press the 'Power' and '8' button at the same time.

Typical remote-control operation for Point to Point Operation

OSD will clear ten seconds from displaying any menu.

- Display receiver MAC address
    - "Menu", "0", "Enter"

- Display Local (Receiver) address
    - "Menu", "1", "Enter"

- Display Host (Transmitter) address
    - "Menu", "2", "Enter"

- Display Receiver Firmware
    - "Menu", "5", "Enter"

- Restart Link
    - "Menu", "6", "Enter"

- Stop Link
    - "Menu", "7", "Enter"

- Enable Channel Buttons on Receiver (*one transmitter = one channel*)
    - "Menu","26","Enter"

- Disable Channel Buttons on Receiver (*recommended setting*)
    - "Menu","27","Enter"
        - *In order to avoid system errors, it is recommended when using one transmitter, such as point to many distribution, to disable the channel buttons, as you will always use only one channel. You can reverse this setting if needed.*

- Display Selected Channel
    - "Enter"
        - *In a point to many configuration, it is recommended to use the default transmitter channel 1.*
- Set to Receiver to Factory Default
    - "Menu","333","Enter"
        - Sets the Receiver only to factory default
- Receiver reboot
    - "Menu","999","Enter"

Mute/unmute image
Press the 'Power' button to toggle mute/unmute. Note: there is an approximate four second delay to unmute.

Troubleshooting – Point-to-Many

Receiver cannot find transmitter

- Receiver is not set to correct channel for transmitter
- Receiver or Transmitter are not connected via CAT cable or via network switch
- Power to transmitter is off
- Power to network switch is off

Transmitter reports no source (via OSD on Receiver lower left corner)
- Check source is active
- Ensure input cable is plugged in to correct port on transmitter (input vs loop out)
- Confirm cable passes signal and is not damaged
- Check power to transmitter is on

Appendix

Methods to determine Auto IP assignments

There are two ways to determine the IP assignments of the transmitters and receivers.
1. On Screen Display
    Once the receiver discovers the transmitter that equals the channel it is assigned to, it will display both IP addresses in the lower right corner when no video signal is present. If a video signal is present, you can request display of the host (transmitter) and client (receiver) with the following remote-control buttons:
2. Network Discovery
    This method is available only when the transmitter(s) and receiver(s) are connected via a network switch, and a computer running the iCON VIP Device Manager discovery tool is utilized. The computer's ip4v address must be set correctly to detect the devices.

Specifications
Subject to change without notice

ITEM	HKM02BT	HKM02BR
Copper Distance	150M (Use Network Switch Max 100M)	
HDMI Video Support	Up to 1080p, 1920x1200@60Hz	
HDCP Compliant	HDCP 1.4	
HDMI Audio Support	Up to 7.1 LPCM 192Khz / Dolby True HD / DTS-HD Master Audio / ATMOS / DTS:X	
HDMI Input	HDMI Type-A	
HDMI Loop Output	HDMI Type-A	
HDMI Output		HDMI Type-A
Analog Audio Input	Line In, 3.5mm Stereo Phone Jack	Mic In, 3.5mm Mono Phone Jack
Analog Audio Output	Line Out, 3.5mm Stereo Phone Jack	
USB	USB 2.0 Type B x 1 (Rear)	USB 1.1 Type A x 2 (Right) USB 2.0 Type A x 2 (Left)
IR Receiver (Internal)	20-60Khz / ±45° / 5M	
IR Emitter (External)	3.5mm Stereo Phone Jack 20-60Khz / ±45° / 5M	
RS-232	DB9 Female	DB9 Male
	(Not support hardware handshake)	
Ethernet	Gigabit RJ45	
Power Consumption	1350mA (Typical)	900mA (Typical, No USB Device)
Power Supply	DC 5V 2000mA	
Dimensions mm	125x140x30	125x140x30
Weight g	380	390

Network Switch Requirements

While a point-to-point normally is configured with the transmitter and receiver directly connected to each other by CAT cable, it is possible to have point to point over a network switch. The requirements for all VIP-200 II systems connected to a network switch are:

- IGMP v2
- JumboFrame

Determination of bandwidth is up to system designer.