PureLink

VIP-100 II

PureStream

Video over IP

User Manual

PureLink™
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Contents

What is in the box

Transmitter kit

1x transmitter (VIP100 II TX)
1x Power Adapter
1x Infrared Receiver
Mounting brackets

Receiver kit

1x transmitter (VIP100 II RX)
1x Power Adapter
1x Infrared Emitter
Mounting brackets
Remote Control

HDMI Transmitter
VIP100H II TX

HDMI Receiver
VIP100H II RX

Remote control for VIP100 II RX

Features

- Full HDMI 1.3
- HDCP 1.3
- PoE 802.3af for both transmitter and receiver
- 64 transmit channels
- Easy channel setup on transmitters with front panel buttons and LED display
- Easy channel selection on receivers with front panel buttons, IR remote control, and LED readout
- RS232 extensions
- IR extension (receiver to transmitter)

Overview

The VIP100 II series allows point to point, point to many, many to point, and many to many configurations.   You can operate the VIP100 II system easily with the supplied remote control or receiver front panel channel buttons.

Transmitter

The transmitter provides the following functions:

- HDMI input : accepts HDMI 1.3 video/audio formats
- HDMI Loop out: provides local loop out of HDMI input
- RS232 [3 pin phoenix connector] : Bidirectional RS232 with selectable baud rates
    - 9600
    - 19200
    - 14400
    - 38400
    - 56000
    - 115000
- Infrared Out 1/8" jack: when the transmitter is linked to a receiver, the IR In of the receiver can send infrared commands to the transmitter, for example using a remote control near the linked receiver location to operate a source [e.g. Blu Ray player] at the transmitter location.

IP Addressing methods

The VIP100 II provides two IP methods, static (manual), and DHCP. The factory default setting of the modules are static.

VIP100 II TX: factory default IP address: 192.168.1.11
VIP100 II RX: factory default IP address: 192.168.1.12

There may be applications where you want to use a network switch that either provides DHCP addressing where the switch assigns all devices an IP address, or manual addressing where you set the IP addresses of the devices.

The VIP100 II series provides three modes of IP addressing.
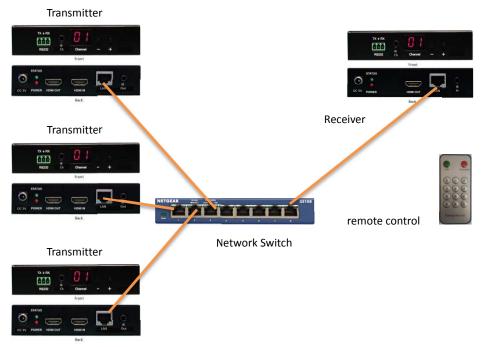
Manual (Static) IP Addressing

The VIP100 II device IP addresses can be configured manually (static). By connecting to a VIP100 II module with a computer that is set to the same IP family, you can then access their built in web page interface to change the devices to static IP address of IP mode if not already set. 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 VIP100 II device IP addresses can be configured to accept IP addresses using DHCP. Access the 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, or use a managed network switch. Use of gigabit switches with jumbo frame and IGMP support is required and will create the most appropriate scenario for both independent IP video networks, and cases where IP video systems are included within your data network.

Example: Many Transmitters to One Receiver Setup (Many to Point Distribution)

Example Application – Many to One

Many to point connection via CAT5e or better cable (CAT6a cable recommended)

VIP100 II Transmitters and Receivers ship in Static IP mode, which allows them to discover each other with no configuration required. While it is possible to reconfigure the transmitter and receiver to DHCP IP mode, it may not be necessary to make these changes in a many to point configuration, unless you need them to be on a network with other devices, or a network that has a DHCP IP method already employed.

- 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.

Typical reference streaming rates

The VIP100 II transmitter stream rate is 15 Mbps.

Remote Control

The remote control allows channel switching at the RX (decoder) receiver module, when coupled with an IR extension receiver.

Troubleshooting – Point to Many

Receiver can't 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

Specifications

Subject to change without notice

Performance	
Protocol	H.264 encoder over TCP/IP
Support Video format	480i/480p/576i/576p/720p/1080i/1080p@60HZ
Support Audio format	LPCM, Audio sampling rate 48KHZ
Streaming Bit Rate	15Mbps
HDCP	Compliant
IR Frequency	38 -56 KHZ
RS232 Baud rate	Default 2400bps, total 8 kinds optional
IP setting &Group ID setting	
Default IP	TX: 192.168.1.11 ; RX: 192.168.1.12
Group ID	Group 00 ~ group 63
Request for Switch/Router	Support IGMP, support DHCP
Connectors on Transmitter	
Input	1xHDMI Female port
Output	1x RJ45 output , 1x HDMI looping output
RS232	Phoenix RS232 port
IR	IR TX port (Support 38K-56KHz)
	IR Ext port (Support 38KHz)
Connectors on Receiver	
Input	1xRJ45 input
Output	1x HDMI Female port looping output
RS232	Phoenix RS232 port
IR	IR RX port (Support 38K-56KHz)
	IR Ext port (Support 38KHz)
Environmental & Power Requirements	
Operating temperature	-5 to +35 ℃ （+23 to +95℉）
Operating Humidity Range	5 to 90%RH (No Condensation)
Power supply	DC 5V 1A
Power consumption	Max 3 watt
Physical	
Dimension	TX: 119x79.5x28mm ; RX: 119x79.5x28mm
Net Weight	TX: 0.28KG ; RX:0.28KG

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 a network switch are:

- IGMP
- JumboFrame

Network Switch Recommendations

The VIP100 II modules can operate from 802.3af compliant PoE enabled network switches.

The VIP100 II devices do not require a managed switch to operate. When the VIP devices are specifically on their own independent network switch, an unmanaged switch is sufficient. A managed switch may provide value in an application where the VIP devices reside on a network with other devices that may be impeded due to network traffic created by the VIP video/audio/usb streams.

Pure Assurance Tested Network Switches
Subject to change without notice. Please check our website for current updated listing.

PureLink

VIP-NET 1G and 10G managed switches
http://main.purelinkav.com/main/index.php?dispatch=news.view&news_id=210

Netgear

GS108: 8 port unmanaged switch
https://www.netgear.com/support/product/GS108?cid=wmt_netgear_organic

JGS524E: 24 port unmanaged switch
https://www.netgear.com/support/product/JGS524E.aspx?cid=wmt_netgear_organic

The VIP lines of PureStream IP Video products can be found at the purelinkav.com website

http://main.purelinkav.com/main/index.php?dispatch=products.view&product_id=223