





# VIDEO OVER IP SOLUTIONS GUIDE

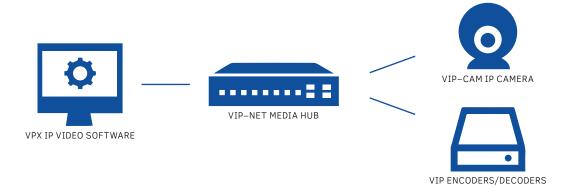


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#### OVERVIEW

PureLink's VIP line of robust **A/V over IP solutions** provide scalable, multi-source audio and video distribution over the network, combining proven hardware components with a server-based software application designed to simplify setup, configuration, and management of VIP systems.



Multi-format hardware options including the VIP–200/300 encoders/decoders and purpose-built PoE CAT/Fiber Media Hubs, together with the revolutionary VPX IP Video Management Software, deliver a complete, easy-to-manage A/V over IP distribution system.

#### **VPX KEY FEATURES:**

- Third party control automation API
- Advanced video wall processing
- Preset creation & scheduling
- **■** Device management
- Network discovery
- Simplified setup

#### **COMMON APPLICATIONS**

- Retail
- Conferencing
- Broadcast

- Digital Signage
- Security & Surveillance
- Entertainment Venues
- Restaurants & Hospitality
- House of Worship
- Esports



# VIP ENCODERS FEATURES COMPARISON

TE	RANSMITTER (E	NCODER) OPTI	ONS		
FEATURES	VIP-100H II TX	VIP-101 TX	VIP-200H II TX	VIP-300H-U TX	VIP-T300H-U TX
1080p	-	•	-		
4K30 4:4:4					
4K60 4:2:0					
HDMI Input	•		-		
HDMI Loop-Out	•		-		
RS-232 Passthrough	•		•		
TCP>RS-232			-		
IR Input			-		
IR Output	•		•		
SPDIF Toslink INSERT Input					
3.5mm Stereo Audio INSERT Input					
3.5mm Stereo Audio Input			•		
CATx Output	•	•	•		
SFP Fiber Output Slot				MM or SM	MM or SM
(1) USB 2.0 Type A Port			•		
User Settable Output Data Rate			•		
USB KMS (Keyboard, Mouse, Storage) Support			•		
HDCP Compliant	1.3		1.3	2.2	2.2
LED Channel Display	•				
OSD Menus			•	w VPX+	
Point-to-Point Extension			•		
Distribution	•		•		
Switching	•	•	•		
Matrix Switching	64	64	999	999	999
PureStreamX Codec	H.264 base	H.264 base	mjpeg2000 base	mjpeg2000 base	mjpeg2000 base
Compatibility with VPX Software			•		
PoE (Power over Ethernet)					
Layered Switching (Audio, Video, USB, IR, RS-232)			•		
Instant Switch Capable			•		
System, Source, and Display Diagnostics via API			•		
Third Party Control API		•	•		
Data Rate	<=25Mbps	<=25Mbps	<=280Mbps	<=800Mbps	<=800Mbps
System Latency	<=400mS	<=400mS	<=16mS	<=16mS	<=16mS
Rack Mount Option			•		
Wallplate					
TAA Compliant					



# VIP DECODERS FEATURES COMPARISON

	RECEIVER (DECOD	ER) OPTIONS		
FEATURES	VIP-100H II RX	VIP-200H II RX	VIP-300H-U RX	VIP-T300H-U RX
HDMI Output	•	•	•	•
(4) USB 2.0 Type B Port		•	•	•
SPDIF Optical EXTRACT Output			•	
3.5mm Stereo Audio EXTRACT Output			•	
3.5mm Stereo Audio Output		•		•
RS-232 Passthrough	•	•	•	•
TCP>RS-232		•		•
IR Input		•		•
IR Output		•	•	•
CATx Input	•	•	•	•
SFP Fiber Input Slot			MM or SM	MM or SM
1080p Support	•	•		•
4K30 Output (4K60 Converted)				•
Video Wall		Up to 8x8	Up to 8x8	Up to 8x8
Image Rotation		90, 180 DEG	90, 180 DEG	90, 180 DEG
UP/DOWN Scaling 1080P/4K (Forced Output)		•	•	•
USB KMS (Keyboard, Mouse, Storage) Support		•	•	•
Handheld Remote ("Channel Style" Switching)		•		•
HDCP Compliant	1.3	1.3	2.2	2.2
LED Broadcast Channel Display	•		•	•
OSD Menus		•	w VPX+	•
Point-to-Point Extension	•	•		•
Distribution		•		•
Switching	64	999	999	999
PureStreamX Codec	H.264 base	mjpeg2000 base	mjpeg2000 base	mjpeg2000 base
Compatibility with VPX Software		•		•
PoE (Power over Ethernet)				•
Layered Switching (Audio, Video, USB, IR, RS-232)		•		•
Instant Switch Capable		•		•
System, Source, and Display Diagnostics via API		-		•
Third Party Control API	•	•	•	•
Data Rate	<=25MbpS	<=280MbpS	<=800MbpS	<=800MbpS
System Latency	<=400mS	<=16mS	<=16mS	<=16mS
Rack Mount Option	•	•	•	•
Wall Mount Option	•	•	•	•
TAA Compliant				•



# VIP-T300H-U TX/RX

- Ultra-low latency (<16mS)
- Ultra HD 4K@30Hz (4:4:4), 4K@60Hz (4:2:0)
- HDCP 2.2 compliant
- Video wall processing (up to 8x8 configuration) and output scaler
- PoE (Power over Ethernet) 802.3af compliant
- Fiber SFP slot for optional SFP modules
- USB 2.0 Keyboard/Mouse Extension
- Extend signals up to 300 m. using network switch
- Comprehensive diagnostics via API device discovery, signal data, and EDID
- Control via web interface, front panel, IR, VPX Management Software, and third party API
- Bi-directional RS-232 and IR Remote Control
- Layered switching of audio, video, USB, RS-232 and IR
- HDMI loop-out on TX (encoder)
- Supports Dolby, DTS, and LPCM audio
- TAA compliant
- Rack mount option available

#### 4K HDMI & USB/KM over IP Distribution System



VIP-T300H-U II TX



VIP-T300H-U II RX

# VIP-300H-U TX/RX

Ultra HD/4K HDMI & USB/KM over IP Distribution System w/PoE

- Ultra HD 4K/30 4:4:4, 4K/60 4:2:0 (converted to 4K30)
- HDCP 2.2 Compliant
- Video wall processing (up to 8x8 configuration)
- PoE (Power over Ethernet) 802.3af compliant
- Fiber SFP slot for optional SFP modules
- USB 2.0 Keyboard/Mouse Extension
- Extend signals up to 120 m. via CAT
- Comprehensive diagnostics via API device discovery, signal data, and EDID
- Control via front panel, IR, VPX Management Software, and third party API
- Bi-directional RS-232 and IR Remote Control
- Layered switching of audio, video, USB, RS-232, and IR
- Digital and Analog Audio Insertion/Extraction
- Rack mount option available





VIP-300H-U RX



# VIP-200H TX/RX

- Full HD/1080p@60Hz support
- HDCP 1.3 compliant
- Video wall processing (up to 8x8 configuration)
- Built-in scaler (Rx) pass through or lock output resolutions
- RS-232 extension/steerable distribution
- USB 2.0 Keyboard/Mouse Extension
- Audio insertion and extraction
- Bi-directional RS-232 and IR control
- Input selection via remote control, front panel, VPX, or third party control system
- Layered switching of audio, video, USB, RS-232, and IR
- Comprehensive diagnostics via API device discovery, signal data, and EDID
- Loop-out on transmitter (encoder)
- Point-to-Point, Distribution, Switching, and Matrix systems
- Rack mount option available

#### HDMI & USB/KM over IP Distribution System



VIP-200H TX



VIP-200H RX

# VIP-101H TX WALL PLATE

- Full HD/1080p@60Hz
- HDCP 1.3 compliant
- Point-to-Point, Distribution, Switching, and Matrix Systems
- PoE (Power over Ethernet)
- Compatible with VIP-100 II System
- Decora 1-Gang Wall Plate
- H.264 codec low bandwidth (25Mbps max)

#### HDMI over IP Wall Plate Transmitter w/PoE



# VIP-100H II TX/RX

- Full HD/1080p@60Hz
- HDCP 1.3 compliant
- LED channel display
- Input selection via remote control
- Point-to-Point, Distribution, Switching, and Matrix Systems
- PoE (Power over Ethernet)
- RS-232 & IR extension/distribution
- HDMI loop-out on transmitter encoder
- H.264 codec low bandwidth (25Mbps max)

#### HDMI over IP Distribution System w/PoE

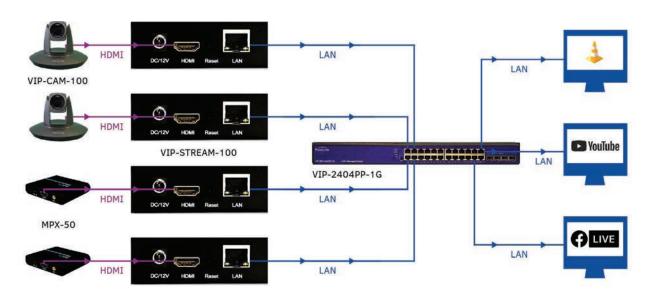


# VIP-STREAM-100

- Full HD/1080p@60Hz
- HDCP 1.3 compliant
- Industry Standard H.264 codec
- Decode using any H.264 compliant software such as VLC, Facebook, and Youtube
- Supports UDP, HTTP, RTSP, RTMP, ONVIF protocol

**HDMI Streaming Encoder** 





MULTIPLE HDMI SOURCES TO PC/DECODING SOFTWARE OVER IP NETWORK



#### MEDIA HUBS

# VIP-NET-M28A

- Houses any combination of (4) CAT/Fiber modules (up to 28 ports)
- Modules include: RJ45, SFP, SFP+, ST and SC
- AVB Technology delivers ultimate reliability and ultra-low latency
- Master clock synchronization between all connected devices
- TAA Compliant

#### Layer 3 Modular 4-Port Media Hub w/AVB



# VIP-NET-0424-1G

- 4 Port 1000Base-T. 24 Port 1000Base-X SFP
- 10Gbe SFP+ interlinks with LACP
- Rear-facing connections for improved rack installation
- Accepts AC or DC source power
- Rich API and Diagnostics
- Extensive security features
- TAA compliant

#### Managed L2+ 1G Media Hub



# VIP-NET-2404PP-1G

- 24 Port 1000Base-T, 4 Port 1000Base-X SFP
- (4) SFP+ Slots for 20G or 40G Interlink
- PoE+ (802.3 at) on all RJ45 ports
- PoE+ Port Configuration & Scheduling
- Built-in Device Management (DMS)

Managed L2+ 1G Media Hub w/PoE+





#### MEDIA HUBS

# VIP-NET-4804PP-1G

- 48 Port 1000Base-T, 4 Port 1000Base-X SFP
- (4) SFP+ Slots for 20G or 40G Interlink
- PoE+ (802.3 at) on all RJ45 ports
- PoE+ Port Configuration & Scheduling
- Built-in Device Management (DMS)

#### Managed L2+ 1G Media Hub w/PoE+



## VIP-NET-0448-1G

- 48 Port 1000Base-X SFP, 4 Port 1000Base-T
- Optional 10G Sub-cards:
  - (1) 10G SPF+ Sub-cards
  - (2) 10G SFP+ Sub-cards

#### Managed L2+ 1G Media Hub w/10G Sub-cards



# VIP-NET-0815-10G

- 8 Port 1000Base-T, 15 Port 10G SFP+
- Dual, Redundant Power Supplies (optional)

10G Media Hub w/Redundant Power Supplies





#### **PERIPHERALS**

# VIP-CAM-100

- 2.14 Megapixel 1/2.8-inch Sensor
- H.264, 3G-SDI, and HDMI outputs
- Supports resolutions up to Full HD/1080p
- High quality 20X Optical Zoom 4.7~94mm (F1.6~3.5) with 12X Digital
- Advanced variable and smooth PTZ (Pan-Tilt-Zoom) function for higher precision and reliability
- IR remote control
- PELCO, VISCA, RS-232, and HTTP control
- Table, ceiling, or wall mountable
- Easy configuration via OSD menu
- On-board SD card slot for local recording/storage
- Digital noise reduction
- ONVIF, RTSP, RTMP, HTTP, TCP, UDP protocol support

#### 3G-SDI IP Camera w/HDMI Output



# VIP-CAM-CTRL1

- Compatible with any PTZ cameras that uses PELCO or VISCA control
- 4D joystick for pan/tilt/zoom/focus control
- High brightness OLED display
- Auto backlight keys
- Shortcut keys customization
- Supports up to 255 cameras using PELCO; 7 cameras using VISCA

#### PELCO/VISCA Camera Controller





#### SOFTWARE

# VPX IP VIDEO MANAGEMENT SOFTWARE

The VPX IP Video Management Software offers advanced system tools that simplify setup and operation including automatic discovery of VIP–200 & VIP–300 transmitter and receiver modules, preset and automation schedule creation, external control, API, detailed diagnostic reporting, and more.

- **Device Discovery** Detects all available transmitters and receivers
- **Device Mapping** Automatically build I/O map or manually create/edit
- **Presets** Create/preview up to 16 presets and automate execution schedules
- **Browser Interface** Easy access through options such as Wi-Fi tablets
- Advanced Diagnostics Monitor entire system with real-time visual feedback

VPX IP VIDEO MANAGEMENT SOFTWARE FEATURES & OPTIONS				
FEATURES	VPX	VPX PLUS	VPX CUSTOM	
Windows Server Program	•	•	•	
Mac or Linux OS Option				
Browser-based UI	•			
Application specific UI				
Auto Discovery	•	•	•	
Manual Configuration	•	•	•	
Dynamic Diagnostics	•	•	•	
Automated Presets	•	•	•	
Preset Preview	•	•		
Event Log with Date/Keyword Filter	•			
Third Party Control via HTTP API	•	•		
VIP–200 Support with video wall/scaling	•			
VIP–300 Support with video wall/scaling	•	•	•	
Future VIP Modules	•	•	•	
Up to 32x32 Matrix	•			
Up to 100x100 Matrix		•		
Custom Matrix Sizing				
Graphical Floor Plan Style UI		•	•	
Text Entry IO Assignment		•	•	
E-mail Reporting, Alerts		•	•	
WallMaster™	•	•	•	
Display Control	Coming Soon	Coming Soon	Coming Soon	



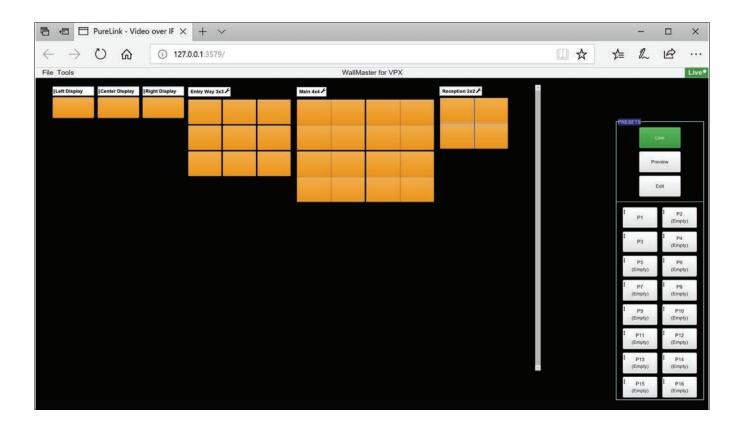
#### SOFTWARE

# **VPX WALLMASTER™**

The VPX WallMaster™ Plug-in integrates advanced video wall processing capabilities to the VPX IP Management Software package, adding deeper functionality to the VIP–300H–U encoders/decoders for digital signage and content distribution.

#### VIP WallMaster™ allows users to:

- Easily create multiple video wall arrays and display zone layouts
- Apply and re-configure layouts and sources on-demand
- Use VPX Preset Scheduler to call layout and input changes
- Call presets through API





#### SOFTWARE

# **VPX COMMANDER**

- Auto-run all versions of VPX IP Video Management Software
- Fast and simple system discovery and setup
- Intuitive system operation
- Comprehensive dynamic diagnostic reporting
- Access user interface wirelessly via iOS, Android, Mac, and Windows devices
- 24/7/365 operation
- 1U rack-mountable design

#### VPX IP Video Management Hardware Client





#### SERVICE & SUPPORT

PureLink offers industry-leading support services designed to handle the unique needs of each project. From system design to comprehensive technical support, our dedicated team of Service & Support professionals are trained to provide a consistently superior user experience.

# COMPLIMENTARY SYSTEM DESIGN

- Start a new design or upgrade an existing system
- Free system diagram and BOM

# DEDICATED TECHNICAL SUPPORT

- Team of technical experts
- Industry's fastest response times
- Gold & Platinum support packages

# PURELINK PROFESSIONAL SERVICES

- Pre-configuration services for VIP endpoints
- Warranty repairs and replacements
- Product evaluation program

# TRAINING

- Free online education (tutorials, quick guides, and more)
- Live webinars featuring VIP/VPX CTS certification