

Just Add **ePower**

AV over IP Solutions



4K60
from Source
to Screen

36 Bit Color

4:4:4 Chroma

On 1G Copper LAN

**All with our new
MaxColor Product Line**

Gigabit POE Receiver

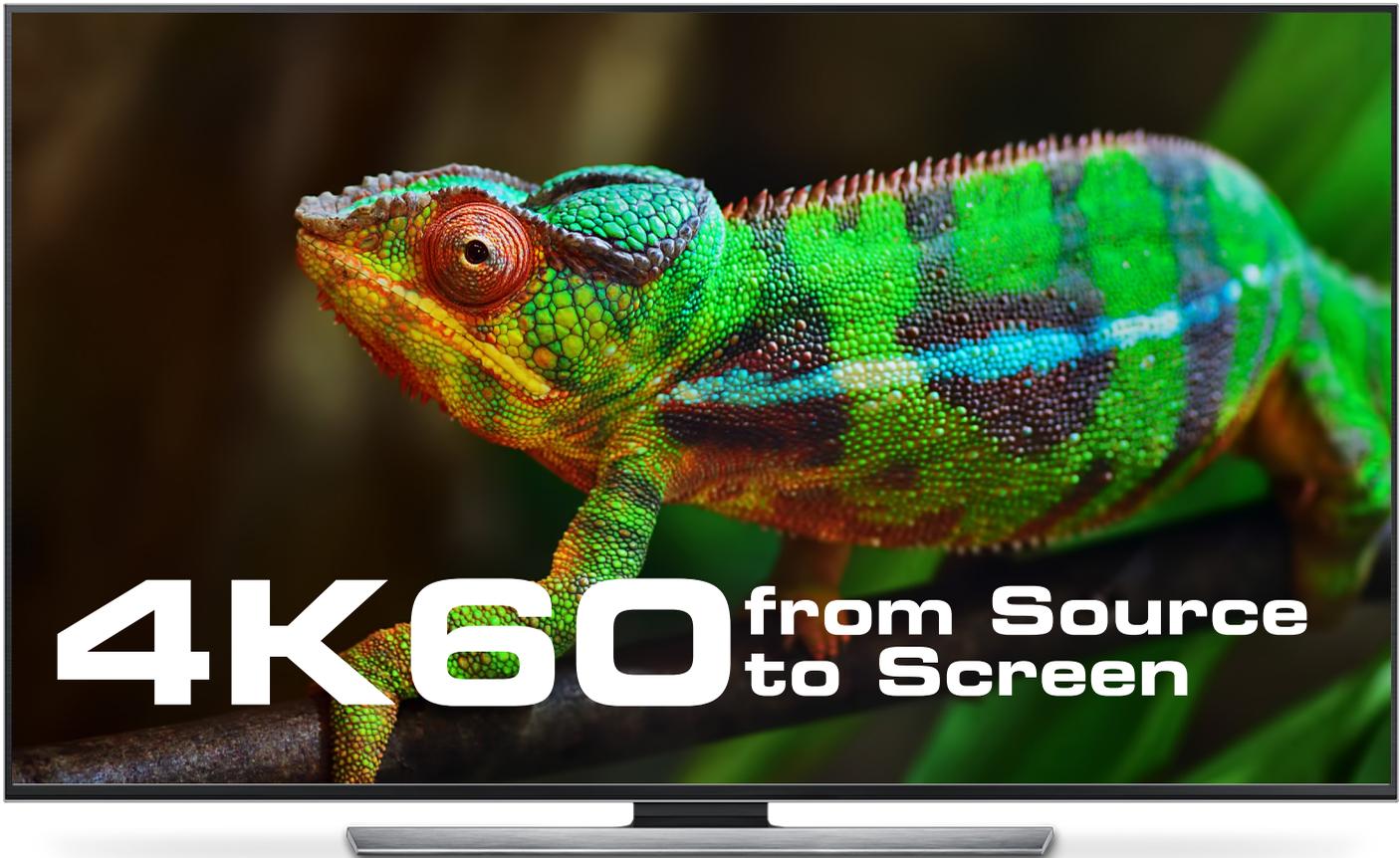
MaxColor™ MC

STEREO OUT IR OUT RS232



MaxColor GIGABIT POE TRANSMITTER MC-TX1

**Product Guide
2023 Issue**



MaxColor Series 2

MC-TX2 Transmitter

MC-RX2 Receiver

**Now with KVM Support,
Audio Return Channel &
Fiber Port Option**



This new series includes everything you love about the MaxColor Series 1 products, but now with KVM support, Audio Return Channel (ARC) and a fiber port connection. The MC-TX2 transmitter and MC-RX2 receiver natively support 4K60Hz in and out, allowing end users to play High Dynamic Range video, including Dolby Vision and HDR10+ formats, using the growing number of Ultra 4K sources and devices. With MaxColor Series 2, 4K60/4:4:4/36-bit color video can be distributed over a 1Gb managed network using existing CatX (Cat5e minimum) cable, or over 10g fiber cable, so that you can take advantage of using the cable that best fits your project. The new ARC feature allows you to easily send audio from a TV connected to a MaxColor 2 receiver and send the audio across the network to another MaxColor 2 receiver connected to an audio video receiver or other ARC enable amplifier - making project design even easier and more flexible.

MaxColor and 3G Ultra are independent systems that can run on the same switch and be integrated with additional hardware.



SCAN ME
Information on
MaxColor and
3G Ultra
integration

MaxColor™ 4K60

The Just Add Power MaxColor system is a 4K60, 36-bit color, 4:4:4 color format HDMI over IP distribution matrix.

MaxColor and 3G Ultra are not compatible. They are independent systems that can run on the same switch and be integrated with additional hardware.

System Wide Features

Transmitters

- Encodes computer and video resolution up to and including 4K60 @ 4:4:4
- Supports all lossless audio formats
- Supports deep color up to 36-bit
- HDR Support: HDR10, HDR10+, HLG, Dolby Vision, and SDR
- Endpoint Control: CEC and RS232
- Image Pull
- Zero detectable latency
- POE Powered
- Seamless Switching

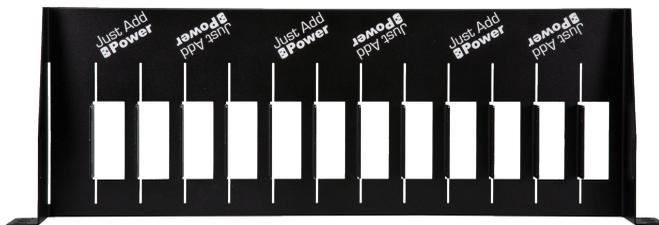
Receivers

- Encodes computer and video resolution up to and including 4K60 @ 4:4:4
- Supports all lossless audio formats
- Supports deep color up to 36-bit
- HDR Support: HDR10, HDR10+, HLG, Dolby Vision, and SDR
- Endpoint Control: CEC and RS232
- Image Pull
- Image Push
- Zero detectable latency
- POE Powered
- Seamless Switching
- Supports Standard Video Wall

	 MC-TX1	 MC-TX2	 MC-RX1	 MC-RX2
Device Description	4K/60 @ 4:4:4 TX	KVM Support with Fiber Option Port TX	4K/60 @ 4:4:4 RX	KVM Support with Fiber Option Port RX
System Wide Features	✓	✓	✓	✓
Fiber Port Option		✓		✓
KVM Support		✓		✓
Audio Return Channel (ARC)				✓

Rackmount Shelf

VBS-HDIP-RS1U
683615347397



- Holds up to 13 Devices
- Compatible with MaxColor, 3G Ultra, and 2G Omega products
- 19" Rackmount Shelf
- Max 5U High

Featured Devices

Warp Engine VBS-HDIP-737POE



- 1 U Rackmount
- Real Time Rotation of Video
- Image Push & Pull
- API or OSD Control of Sources
- Add-on to Any 3G Ultra System



The Warp Engine sends live rotated video to an **unlimited** number of Just Add Power Receivers. Rotate any HDMI source in a Just Add Power matrix in **0.1 degree increments**.

Video Tiler VBS-HDIP-759A



- Display 4 Sources on 1 Display
- View on Any Screen
- Adjustable Transparency
- Custom Sizing & Placement
- Mix Any Resolution Source
- Local HDMI Out
- Stackable for Unlimited Tiles
- Smooth Transitions for Live Events



The Video Tiler allows any integrated screen with a Just Add Power Receiver attached to do multiview.

Tile **four (or more) HDMI sources** on a **single display** in a variety of viewing modes.

Now supporting Chroma Key. Get creative with your own special effects using blue/green screen overlay feature.

Audio Specific

ST-1 Sound Transceiver VBS-HDIP-ST1



Operates as either a Transmitter or a Receiver.

Use the ST1 Sound Transceiver to add a stereo audio source to a Just Add Power system, or to extract stereo audio from an existing Transmitter. Supports up to 192kHz 24-bit 2-Channel LPCM Audio.



Dante Enabled TX VBS-HDIP-767DSS



See product listing on page 5 for more information.

Send and receive up to 8-Channels.

The Dante Enabled Transmitter allows any Just Add Power system to exchange 2-way audio with any Dante or AES67 sound system. Including all of the 4K system wide features found within the 3G Ultra Transmitters, this device has the richest feature set in the industry.

3G POE TX With Stereo Extraction VBS-HDIP-708POE



See product listing on page 4 for more information.

Supports all lossless audio formats - including Dolby Atmos.

The 708POE Transmitter with Stereo Audio Extraction can distribute 4K video, stereo audio, and breakout analog audio on a single device. Input stereo audio to enable the stereo audio extraction port to feed into a stereo distribution matrix.

4K Transmitters System Wide Features

- Encodes 4K or Lower Resolutions
- HDCP 2.2
- 4K/60 Compatible at 4K/30
- HDR Support
- Seamless Switching
- Integrated Endpoint Control
- Zero Detectable Latency
- EDID Management
- POE Powered (unless otherwise noted)
- Plug-Play-Present
- Image Pull
- All 3D Formats Supported

3G POE VBS-HDIP-707POE



- 4K System Wide Features
- All Lossless Audio Supported

3G+ HIFI VBS-HDIP-717HIFI



- 4K System Wide Features
- All Lossless Audio Supported
- HDMI Loopout

3G POE Plus Stereo Extraction VBS-HDIP-708POE



- 4K System Wide Features
- All Lossless Audio Supported
- Stereo Audio Output 3.5mm

3G+ KVM VBS-HDIP-718KVM



- 4K System Wide Features
- Stereo Audio Output 3.5mm
- KVM Support
- Field-Modifiable Dolby Chip Upgrade to Audio/Video Professional (AVP) Model

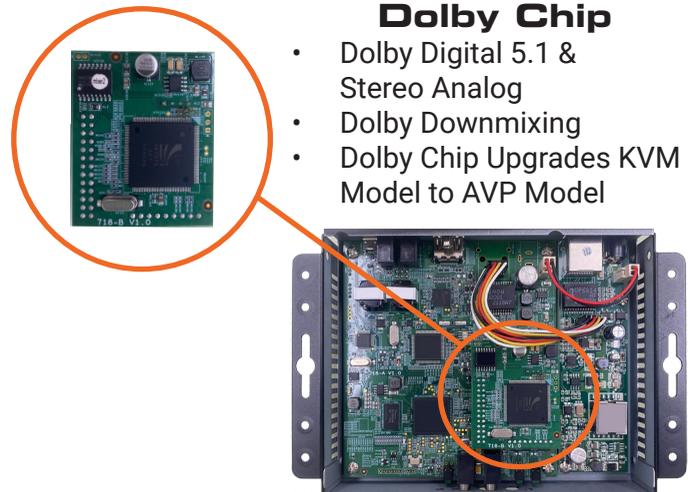
3G P2P VBS-HDIP-709P2P



- 4K System Wide Features
- All Lossless Audio Supported
- Built-in POE Injector up to 40W
- Specifically Built for Point-to-Point

Dolby Chip

- Dolby Digital 5.1 & Stereo Analog
- Dolby Downmixing
- Dolby Chip Upgrades KVM Model to AVP Model



3G+ WP2 VBS-HDIP-717WP2



- 4K System Wide Features
- HDMI and VGA Input
- All Lossless Audio Supported
- Stereo Audio Input
- KVM Support
- Colors: Black, White or Custom

3G 2-Gang Thin WP2 VBS-HDIP-707WP2



- 4K System Wide Features
- 1.5' Total Depth
- Integrated Endpoint Control - *CEC Control*
- Colors: Black, White or Custom

3G+ WP4 VBS-HDIP-718WP4



- 4K System Wide Features
- HDMI and VGA Input
- Dolby 5.1 Downmixing
- Audio Mixing
- Stereo Audio Input
- Stereo Audio Output 3.5mm
- KVM Support
- Colors: Black, White or Custom

3G POE Rackmount VBS-HDIP-747POE



- 4K System Wide Features
- 4-in-1 Rackmount of 3G POE TX
- All Lossless Audio Supported
- POE or AC Powered

3G+ KVM Rackmount VBS-HDIP-749KVM



- 4K System Wide Features
- 3-in-1 Rackmount of 3G+ KVM TX
- Supports 110V to 240V AC Power
- Audio Mixing
- Field-Modifiable Dolby Chip Upgrade to Audio/Video Professional (AVP) Model

3G+ Dante Enabled VBS-HDIP-767DSS



- 4K System Wide Features
- Dante & AES67 RTP Enabled
- 8-Channel PCM Audio
- HDMI Loopout

4K Receivers System Wide Features

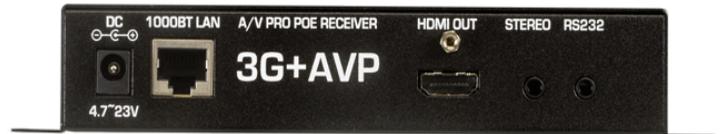
- Resolution Output Scaling
- HDR Support
- HDCP 2.2
- All Lossless Audio Supported
- Integrated Video Scaler
- Seamless Switching
- Integrated Endpoint Control
- Video Wall with Rotation
- EDID Management
- POE Powered (unless otherwise noted)
- Plug-Play-Present Built-in
- Image Push, Pull, Pop
- On Screen Display
- All 3D Formats Supported

3G POE VBS-HDIP-508POE



- 4K System Wide Features

3G+ AVP VBS-HDIP-518AVP



- 4K System Wide Features
- Analog Audio Out
- KVM Support

3G POE Daisy-Chain VBS-HDIP-509POE



- 4K System Wide Features
- Network Out Port
- Can use with 709P2P for Video Walls
- DHCP Integration
- Supports Multiple Receivers on Single LAN Port

1080p Transmitters System Wide Features

- Encodes 1080p or Lower Resolutions
- HDCP 1.x
- HDR Support
- Seamless Switching
- Zero Detectable Latency
- EDID Management
- POE Powered (unless otherwise noted)
- Plug-Play-Present
- Image Pull
- All 3D Formats Supported

2GΩ/3G VBS-HDIP-705POE



- 1080p System Wide Features
- All Lossless Audio Supported
- Integrated Endpoint Control

2GΩ/3G SDI VBS-HDIP-725POE



- 1080p System Wide Features
- Supports 48kHz Audio Sample Rate, 8 Channels, 16~24 Bits
- HDMI Loopout
- Analog Audio Output
- Integrated Endpoint Control - RS232 & IR

2GΩ/3G+ VBS-HDIP-715POE



- 1080p System Wide Features
- All Lossless Audio Supported
- Analog Audio Output
- HDMI Loopout
- Integrated Endpoint Control
- KVM Support

2GΩ/3G TVI VBS-HDIP-726TVI



- 1080p System Wide Features
- TVI Input
- Analog Audio Input
- HDMI Loopout
- KVM Support

1080p Receivers System Wide Features

- 1080p & Lower Resolution Support
- HDCP 1.x
- Integrated Video Scaler
- Video Wall with Rotation
- Seamless Switching
- Integrated Endpoint Control
- All Lossless Audio Supported
- POE Powered (unless otherwise noted)
- Plug-Play-Present
- Image Push, Pull, Pop
- On Screen Display
- All 3D Formats Supported

2GΩ/3G
VBS-HDIP-505POE



- 1080p System Wide Features

2GΩ/3G+
VBS-HDIP-515POE



- 1080p System Wide Features
- Analog Audio Output
- KVM Support

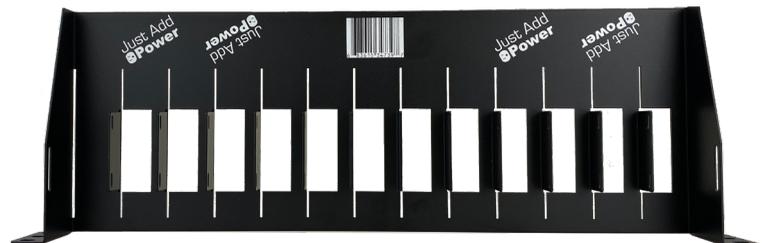
IR Control & Rackmount Shelf

IR Control
VBS-HDIP-IRD2



- Serial to IR
- Compatible with All Devices
- Adds IP to IR Control

Rackmount Shelf
VBS-HDIP-RS1U



- Compatible with 2G Omega, 3G Ultra, and Maxcolor Devices
- Holds up to 13 Devices
- Max 5U High
- 19' Rackmount Shelf

System Features

Any Size Matrix

Create a flexible matrix of sources and displays limited only by the switch(es) used.

Artistic Video Wall Capability

Send image-rotated video content to a set of displays of any size, mounted at any angle, and pressed edge to edge or spaced apart, to provide a cohesive artistic image with video content chosen or designed exclusively for the layout.

Audio Mixing

Mix analog audio inputs and outputs with digital audio inputs and outputs, including HDMI, AES67 and Dante 8-channel, with adjustable volume, mute and delay.

Chroma Key

Get creative with your own special effects using blue/green screen overlay feature.

DHCP Integration

Provide internet connectivity to a smart device through the same CATx cable that connects the Just Add Power matrix to that device using a DHCP server integrated receiver.

Dolby 5.1 Downmixing

Convert a source's Dolby 5.1 audio to Dolby ProLogic II audio for stereo-only speaker zones and allow both audio formats to be used simultaneously in multiple speaker zones.

Easily Accessible API

Write custom drivers and programs to interact with Just Add Power devices.

EDID Management

Display High Dynamic Range (HDR) content on HDR displays, permit the same content to display on standard screens, and allow content to be displayed simultaneously on both types of screens.

HDCP Support

Display content with HDCP copy/content protection on any HDMI screen in your system.

HDR Support

Support High Dynamic Range (HDR) formats including HDR10, HDR10+, HLG, and Dolby Vision.

Integrated Endpoint Control

Control source and screen devices using built-in Consumer Electronic Control (CEC), Transmission Control Protocol (TCP/IP), Infrared control (IR) or Serial control (RS232).

Image Pop

Display a custom logo or message as an overlay on any active screen.

Image Push

Load a custom default image or logo for when no source is displayed onscreen.

Image Pull

Preview an image from any source or display, in any web browser or control system, at up to 10 fps.

Image Rotation

Rotate video input in 0.1 degree increments to create artistic video walls with screens at any angle and in any configuration.

KVM Support

Provide local and remote access to all computers on the system with a built-in keyboard, mouse and touchscreen interface at both ends of a connection.

Mosaic Video Wall Capability

Send video content to a set of displays mounted in a combination of equal or differently sized screens, mixed in portrait and landscape orientations, and pressed edge to edge or spaced apart, to provide a cohesive image with video content chosen or designed exclusively for the layout.

Plug-Play-Present

Capture and maintain a preset protocol that is initiated when a source is connected to a designated transmitter to power on desired display(s) and switch to the newly connected source for quick and easy presentation setup, and an ending protocol for when the source is disconnected from the transmitter, with no additional control system necessary. Available only in VLAN systems.

Resolution Scaling

Downscale a source's 4K signal for viewing on a lower resolution screen and upscale a source's lower resolution signal for viewing on a 4K display.

Seamless Switching

Eliminate black screen downtime when switching sources at the same resolution and minimize black screen downtime when switching sources with different resolutions.

Security

Feel confident that any Just Add Power AV over IP system is secure from outside intrusion, since the system is isolated from all data networks and devices are secure and never connected to or accessed via the internet (firmware updates are done locally by system maintenance staff).

Standard Video Wall Capability.

Send video content to a set of 2 to 256 displays of equal sizes, mounted in a grid in either portrait or landscape orientation and pressed edge to edge, to provide a single wall image or a set of smaller video images with the ability to dynamically change the layout as desired.

Video Rotation

Rotate your video by 90 degrees for portrait or landscape display.

Video Tiling

Combine video input from four sources to create a tiled source that can be displayed on a single screen.

Visually Lossless Video

Send original source signals to multiple and various screens with the same outstanding performance at each display.

Zero Detectable Latency

Minimize encode/decode latency over the network so that it is visually undetectable.

Designing A System

Use the guide below to help you choose the type of system that's right for your next project.

1 Determine Product Series

MaxColor™ 4K60

- Supports up to 4K Resolution at 60fps
- Supports HDR, HDR10, HDR10+, HLG and Dolby Vision formats

3G ULTRA

- Supports up to 4K60 Resolution at 4K30 output
- Supports HDR & HDR10 formats
- Most extensive feature set with image rotation and tiling

2G OMEGA

- Supports up to 1080p Resolution
- Supports HDR format

2 VLAN vs Multicast System

Just Add Power built its reputation for outstanding performance on its design using VLAN switching on a closed network to distribute audio and video with zero detectable latency. For most installs, a **VLAN system** is still the **best performing option for a Just Add Power AV system**.

For some larger installs where equipment is already in place or must be consistent across the company's network, a multicast system is necessary to meet these requirements.

	VLAN	Multicast
Configuration Software	AMP	AMP
System Setup	Software Does It All	Software Does Some Installer Does Some
Software Sets Up	J+P Devices AND Switch	J+P Devices ONLY <i>You Configure the Switch</i>
Network Switches	Specific Models Supported	Minimum Technical Specs
Network Knowledge	Basic	Advanced
Data Network Impact	None <i>Standardized by J+P</i>	Variable <i>Varies by System Capabilities/Setup</i>
System Maintenance	Installer	Installer and/or IT Admin
Typical Use	Residential or Commercial	Corporate or Institutional

Choose Network Switch

Select from a variety of VLAN supported switch manufacturers and models.

VLAN Supported Switches

	Model	POE Ports	Maximum Devices	Multi-Switch Systems
Luxul	AMS-1208P	8	9	
	AMS-1816P	16	17	
	AMS-2624P	24	25	
	AMS-4424P	23	23	✓
	XMS-1208P	8	9	
	XMS-2624P	24	25	
	XMS-5248P	48	49	
	XMS-7048P	47	47	✓
	SW-510-48P-F	47	47	
	SW-610-48P-F	47	47	✓
SW-610-24P-R	23	23	✓	
Netgear	GSM4210PD (M4250-9G1F-PoE+)	8	8	
	GSM4212P (M4250-10G2F-PoE+)	8	9	
	GSM4230P (M4250-26G4F-PoE+)	24	25	
	GSM4230UP (M4250-26G4F-PoE++)	24	25	
	GSM4248P (M4250-40G8F-PoE+)	39	39	
	GSM4210PX (M4250-8G2XF-PoE+)	7	7	✓
	GSM4212PX (M4250-10G2XF-PoE+)	8	9	✓
	GSM4212UX (M4250-10G2XF-PoE++)	8	9	✓
	GSM4230PX (M4250-26G4XF-PoE+)	24	25	✓
	GSM4248PX (M4250-40G8XF-PoE+)	39	39	✓
	GSM4248UX (M4250-40G8XF-PoE++)	39	39	✓
	XSM4216F (M4250-16XF)	0 (interlink)	0 (interlink)	Coming Soon
	Cisco	CBS350-8P-2G	6	9
CBS350-8P-E-2G		6	9	
CBS350-8FP-2G		8	9	
CBS350-8FP-E-2G		8	9	
CBS350-16P-2G		12	15	
CBS350-16P-E-2G		12	15	
CBS350-16FP-2G		15	15	
CBS350-24P-4G		19	23	
CBS350-24FP-4G		23	23	
CBS350-48P-4G		37	47	
CBS350-48FP-4G		47	47	
CBS350-24P-4X		19	23	✓
CBS350-24FP-4X		23	23	✓
CBS350-48P-4X		37	47	✓
CBS350-48FP-4X		47	47	✓
SG350 SERIES		47	51	
SG550X SERIES		47	47	✓
TP-Link	TL-SG3428MP	23	23	
	TL-SG3452P	47	47	
	TL-SG3428XMP	23	23	Coming Soon
	TL-SG3452XP	47	47	Coming Soon

* For Multi-Switch Systems, please see the Multi-Switch Considerations article for cable recommendations and bandwidth guidelines.
<https://support.justaddpower.com/kb/article/430-multiswitch-considerations-for-amp-vlan/>

Control System

Control System Integration:

We provide free drivers for popular control systems and an easily accessible API.

SCAN ME



Control Systems Overview

Control System



Switch

Building

A System

How to Build Any Size AV over IP Matrix:

1 Source Transmitters

One **Transmitter (TX)** per source.

2 Gigabit Switch

A suitable **Gigabit Switch** with the right number of ports. One port for each Just Add Power device plus one additional port connected to the data network.

Multiple switches may be used to create any size matrix - allowing a flexible matrix of sources and displays.

3 Display Receivers

One **Receiver (RX)** per display.

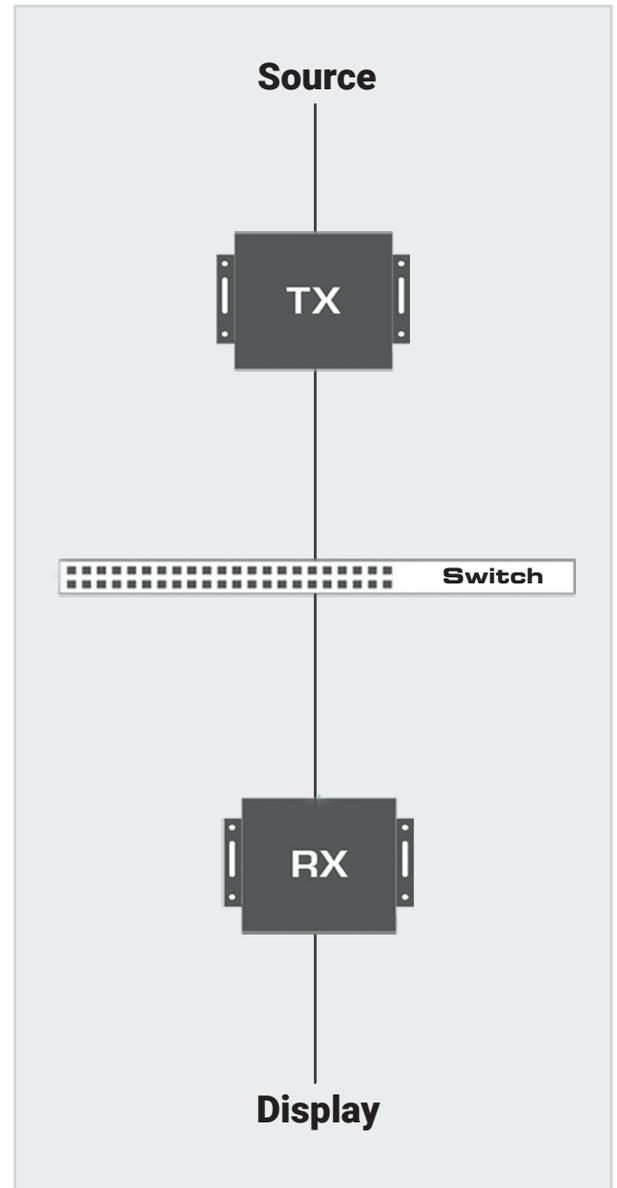
Cabling: Use Cat 5e/Cat 6/Cat 7 for distances up to 100m or fiber optic cabling for distances up to 10km.

4 Configuration - AMP

Advanced Matrix Programmer - AMP - configures all Just Add Power devices into an HDMI matrix switching system.

New systems should be built with AMP. AMP supports a wider range of switches, configures 2G Omega, 3G Ultra, and MaxColor systems, and is continuously updated and improved.

AMP is the successor to JADConfig. If you were previously using JADConfig to configure systems, you should continue to use it for maintaining those systems. However, we recommend that new systems should be configured with AMP software.

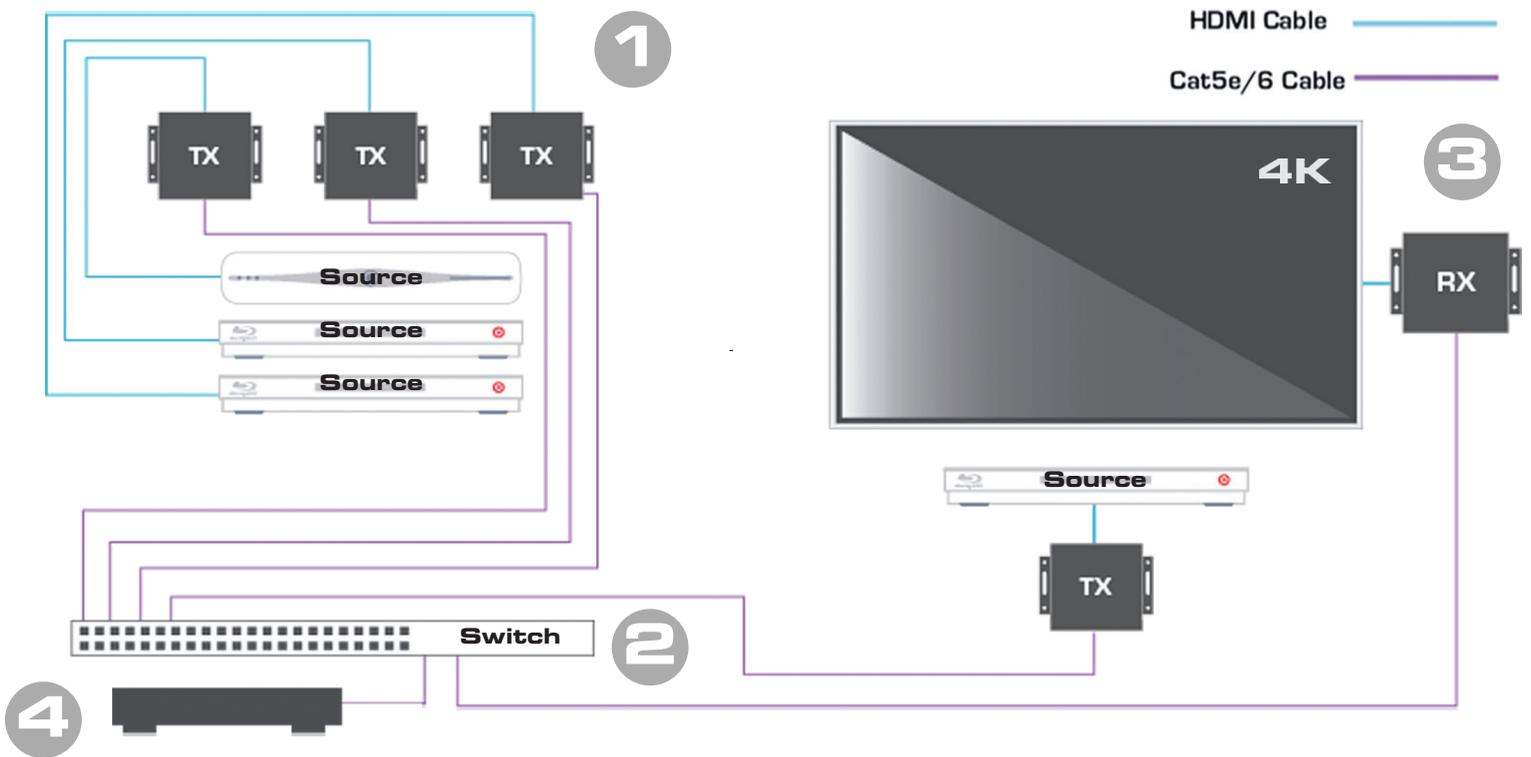


Expanding A System

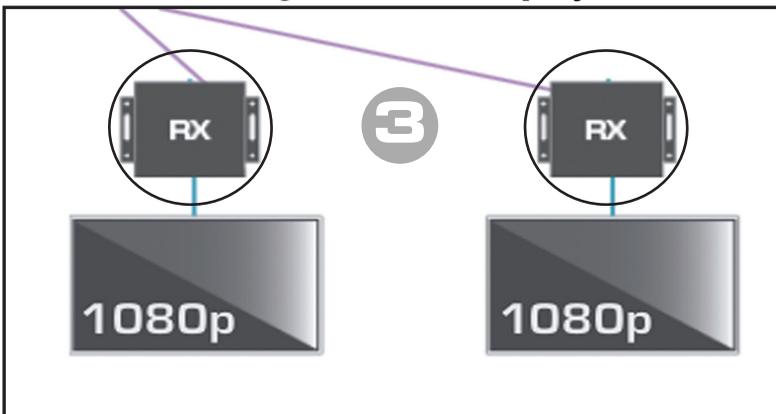
Need to Expand?

Thanks to our **unmatched scalability**, expanding a current system is easy.

If you are adding a new source to your system, simply connect a Transmitter to the source. If adding another display, attach it to an additional Receiver. Some items require a bridging component for integration into an existing system.



Adding Two New Displays



Expanding a system with two new displays would only require adding two new Receivers.

System

Examples

Residential Install

3 Sources x 5 Displays

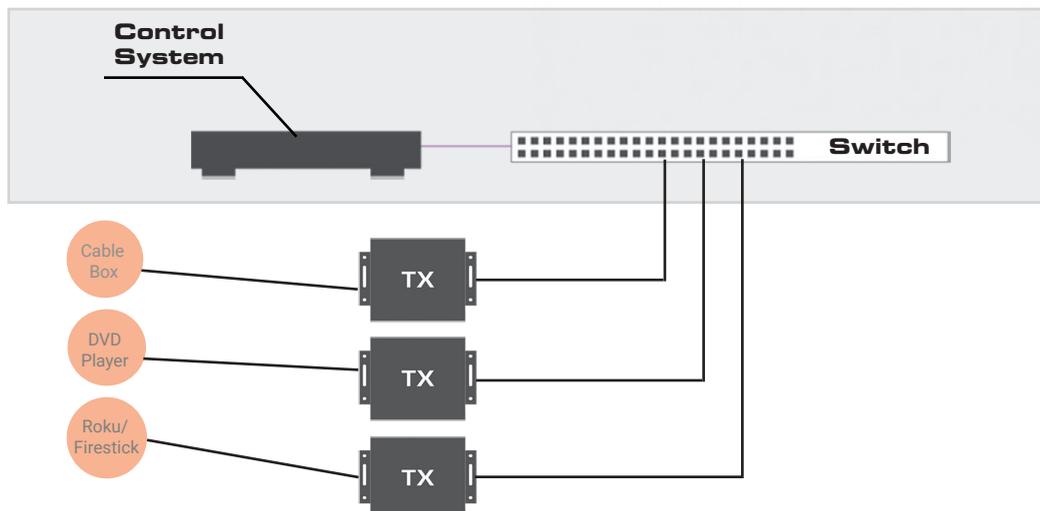
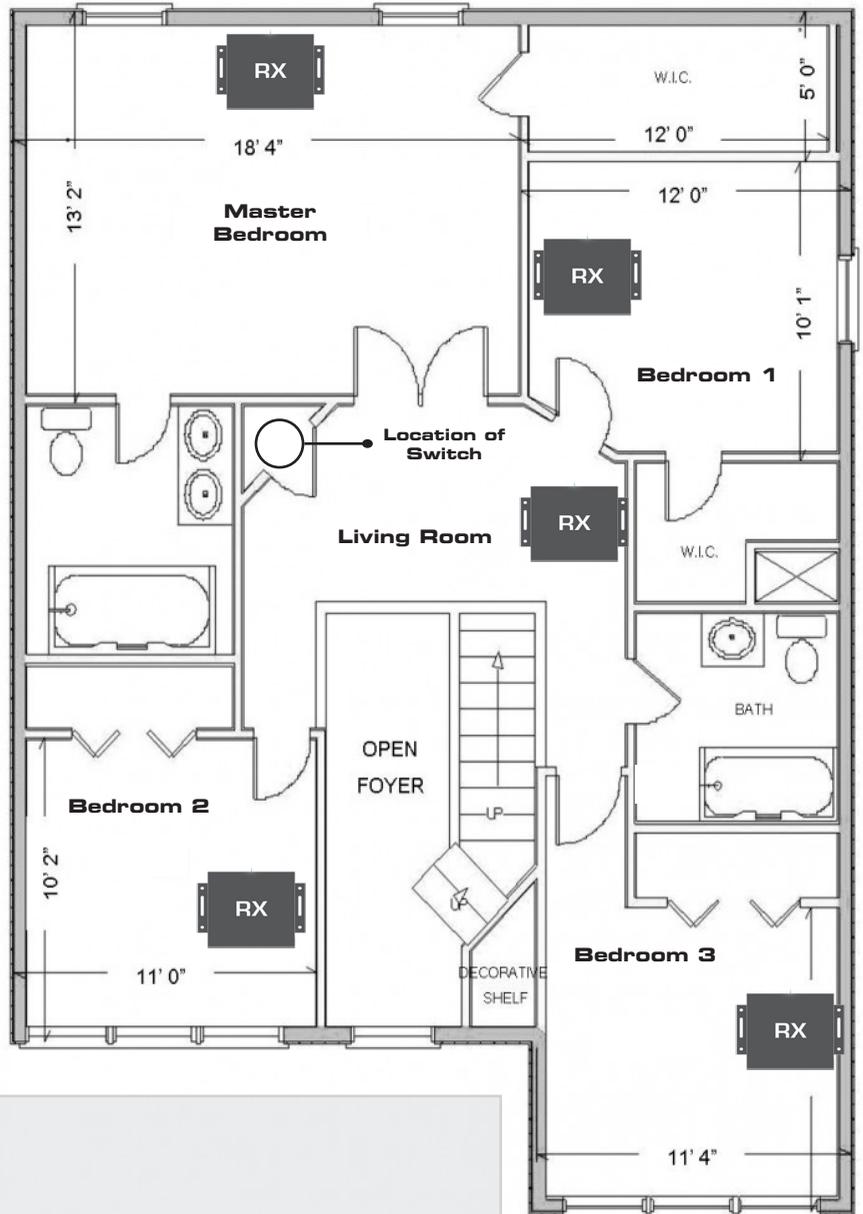
4 Bedroom Residential Install: Second Floor

3 Sources x 5 Displays

A simple two story install with a switch located upstairs in the living room closet with 3 sources and 1 display per room (5 total displays).

Residential AV over IP

With Just Add Power, residential installers benefit from having no fixed number of inputs/sources or outputs/displays to work around, have no difficulty distributing to distances over 100m in large luxury homes, and like the fact that they can easily return to a site in the future to expand the system when desired.



System

Examples

Commercial Install

20 Sources x 30 Displays

Nightclub & Sports Bar Install:

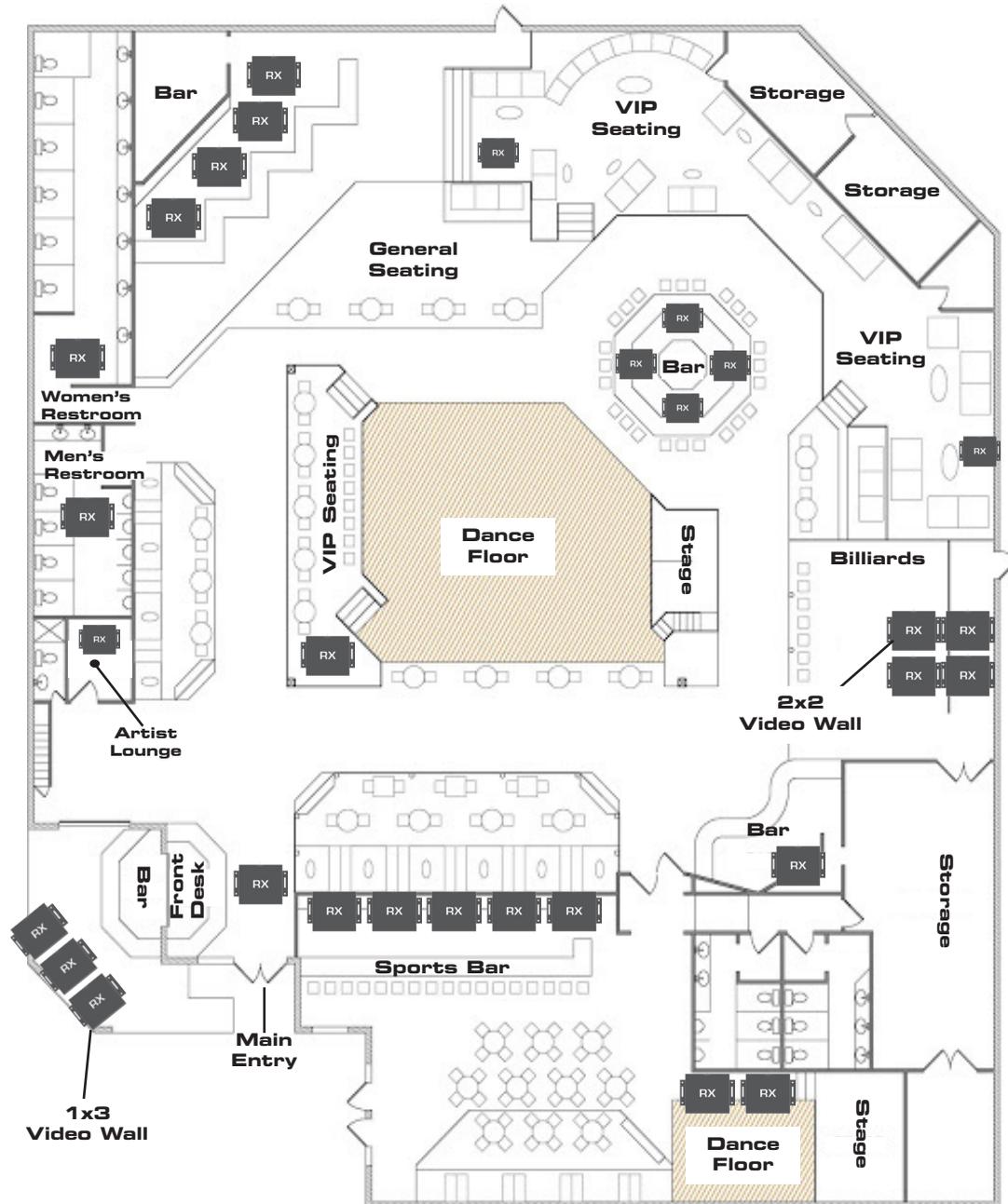
20 Sources x 30 Displays

This install is a perfect example where an installer has used stacked switches to distribute AV throughout this large commercial space.

Paired with a compatible control system, the client and their employees easily manage the sources and screens from anywhere in the building.

Pro AV & Commercial AV over IP

Whether it's an airport, office building, a sports bar or a stadium, Just Add Power lets you build a video distribution system of networked AV devices that is scalable, reliable, economical, and easily controllable.



Our AV over IP products can also create stunning standard mosaic and artistic video walls and combine multiple video feeds onto a single screen. Read more about our Warp Engine Transmitter and the Video Tiling Processor on page 2.

Commercial - Entertainment Center

EVO Entertainment Multiplex
 Location: Schertz, Texas
 Integrator: Mood Texas

EVO Entertainment had a vision to pack their 73,000-square-foot facility with nearly a 100 displays consisting of video walls, outdoor displays, signage and more. Integrator Mood Texas was called upon to complete their vision of a high-tech establishment with flawless audio and video distribution. Thanks to Just Add Power's easy installation, seamless switching, video wall functionality, and other features, EVO Entertainment's high-tech vision was turned into a reality.



Residential - Home Theater

The Holladay Cinema
 Location: Salt Lake City, Utah
 Integrator: Tym LLC

This ultimate entertainment space features a custom-built 16-foot wide-screen to display stunning images, a custom Tym signature star ceiling, a Just Add Power video distribution system, and more.



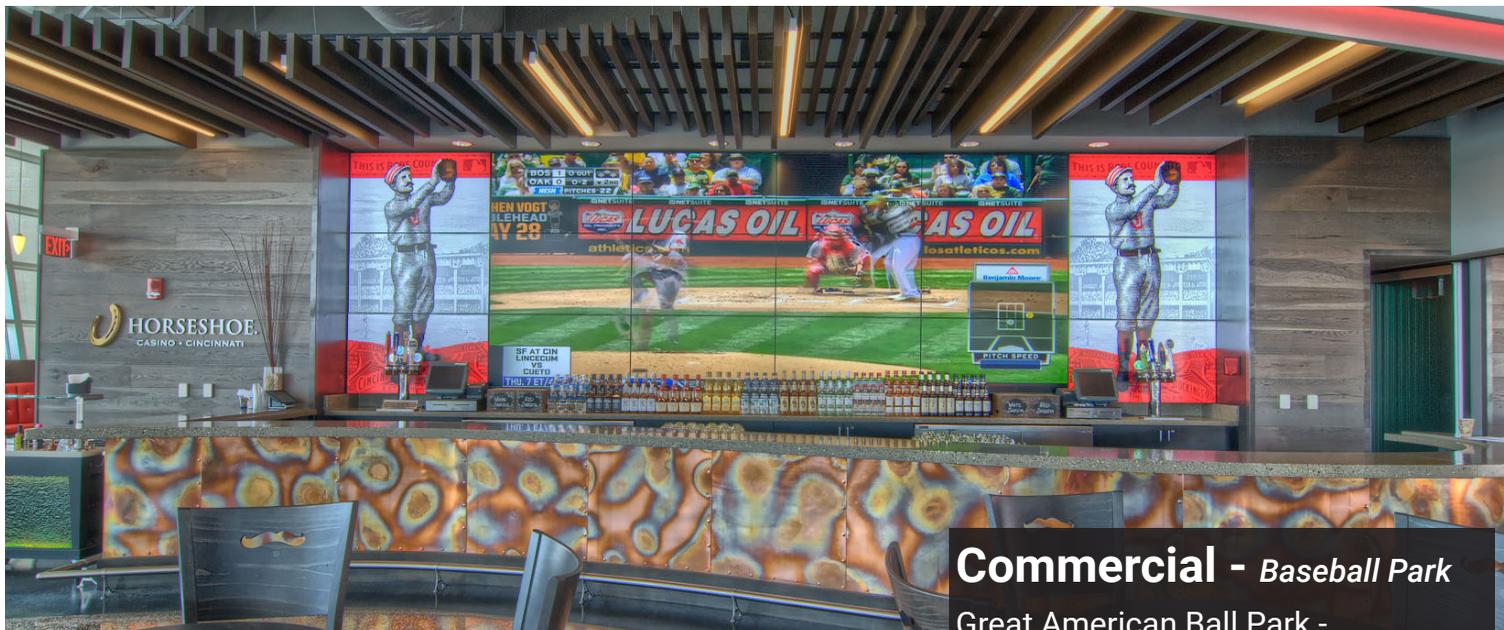
Commercial - Golf Club

Montecito Club
 Location: Santa Barbara, CA
 Integrator: Central Coast Audio Visual

"The owner and members of the Montecito Club have been very pleased with the clean look of the displays in the space, and how simple it is to control them... And it has delivered the performance and reliability the Club expects. The system has performed flawlessly since its deployment and its scalability will allow us to easily meet future growth, whether it's more displays or additional sources."

Chris Wilson
 President of Central Coast Audio Visual





Commercial - *Baseball Park*

Great American Ball Park -
The Cincinnati Reds Stadium

Location: Cincinnati, OH

Integrator: Nor-Com

“The sports industry is currently faced with the challenge of how to affordably upgrade their technology to provide a seamless, cost-effective, and future-proof entertainment experience for the fans. J+P helps easily solve modern distribution challenges by providing modular system that can be scaled as needed,” Snyder said. “For the Reds’, it’s offered incredible versatility that was essential to their vision. We were able to put in new bar or install guest experience as their vision evolved, drop in 60 displays, and send protected HD content to any one of those displays – with a snap of a finger.”

Gary Snyder
Senior Programmer at Nor-Com



Installation TRAINING

The Just Add Power In-Person and Remote Installation Trainings are designed to instruct you on the planning, setup, configuration, control, and troubleshooting of common parts of a Just Add Power system.

In-Person Training

**Just Add Power HQ
Seminole, FL**

**Qualifies for AVIXA & CEDIA
education units**

2023 Dates

Class 1: January 17-20

Class 2: April 18-21

Class 3: July 18-21

Class 4: October 17-20

Tuesday

Arrival to hotel

Wednesday

Training Day 1

9-5PM

Thursday

Training Day 2

9-5PM

Friday

Training Day 3

9-1PM



SCAN ME

Register for our In-Person Training

<http://justaddpower.com/training-registration.html>

Remote Training

At Your Location

Participants within the US

Training videos

*Same content covered in the In-Person
Installation Training*

Remote Training Kit for 6 weeks

One-on-one support with technician

Participants outside the US

Training videos

*Same content covered in the In-Person
Installation Training*

Provided list of equipment required for hands on
practice

One-on-one support with technician



SCAN ME

Register for our Remote Training

<http://justaddpower.com/remote-training-registration.html>

www.justaddpower.com

Toll Free +1-800-615-0206