

# Just Add **Power** PROJECT PLANNING GUIDE

Revised 2015-02-03

# **HDiP**

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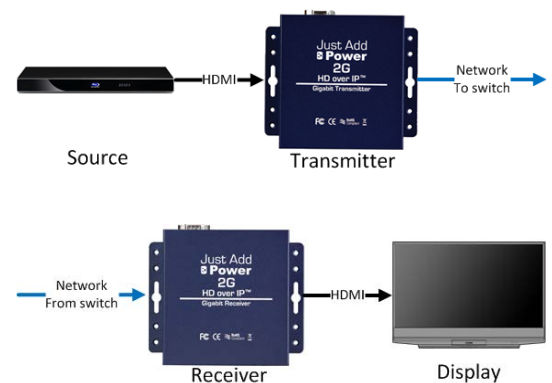
# How the Just Add Power Solution Works

The Just Add Power HD over IP solution is an HDMI audio/video distribution system that uses the Local Area Network infrastructure. Just Add Power devices are network appliances, and conform to all networking protocols and standards for wiring and reliability. Therefore, audio and video is capable of traveling anywhere that data on the Local Area Network can travel.

The strengths of the Just Add Power HD/IP solution are in its versatility, quality, and feature-set. It is uniquely scalable for the job at hand, no matter how many sources and displays an installation may require. There is no limit of static 2x2, 4x4, 8x8 input/output ranges. 2x9? Sure! 1x13? Of course! 7x58? Easy! Content can be transmitted in resolutions up to 1080p60. As long as the source can have an HDMI output, the Just Add Power solution can distribute it.

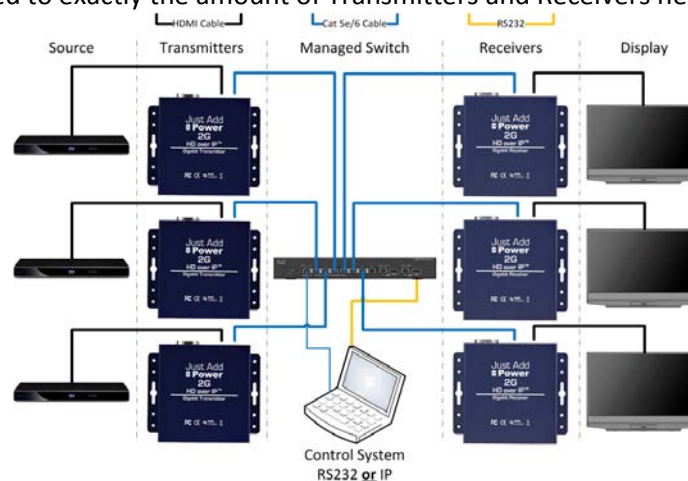
## A Just Add Power system consists of two devices: an encoder and a decoder

- **Just Add Power Transmitter** – Connected to the source device via HDMI cable. The source device can be a Blu-Ray player, cable box, media server, DirecTV, or other device with an HDMI output. The Transmitter converts the HDMI signal into a network packet that is sent over Cat5e/6/7 cables.
- **Just Add Power Receiver** – Connected to the display device via HDMI cable. The display device can be a TV, monitor, AV receiver, or other device with an HDMI input. The Receiver takes network packets received over Cat5e/6/7 cables and converts them into an HDMI signal.



## The center of a Just Add Power HDMI matrix is a managed gigabit Ethernet switch.

- Think of the managed gigabit Ethernet switch as a **network-controlled matrix switcher** that just *happens* to be a network switch
- All Transmitters and Receivers connect to the managed gigabit Ethernet switch
- The switch is configured to exactly the amount of Transmitters and Receivers needed

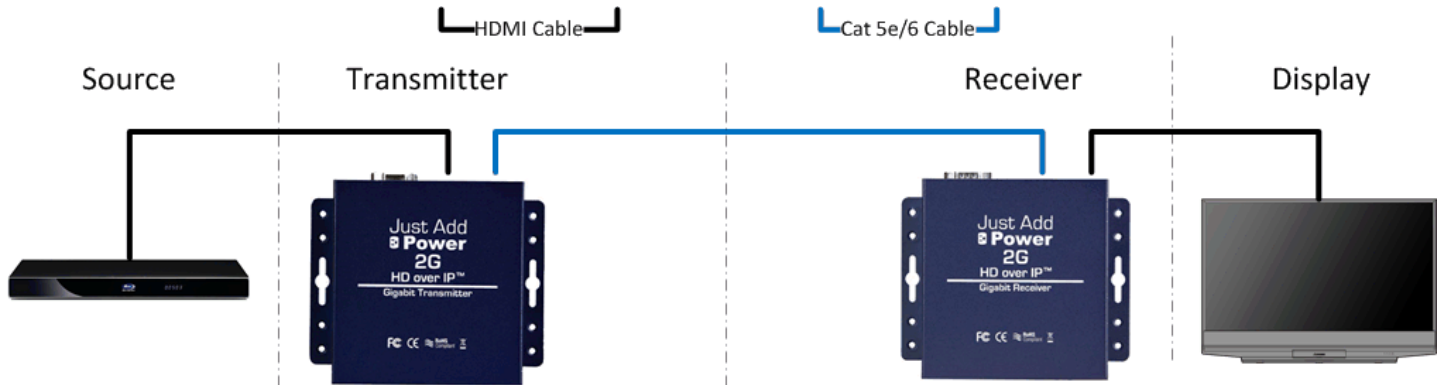


## To realize a Just Add Power installation, the following pieces are needed:

- 1 Receiver per display
- 1 Transmitter per source
- A managed gigabit Ethernet switch
- A Control System to manage the switching of displays to watch different sources

# Installation Types

## One Transmitter to One Receiver



## Components

- 1 source device
- 1 Just Add Power Transmitter
- 1 display device
- 1 Just Add Power Receiver
- 2 HDMI cables
- 1 Cat 5e/6/7 cable

Just Add Power devices on the **same firmware version** are plug-and-play. They need only to be connected together in order for video transmission to begin. In the simplest installation – one Transmitter sending to one Receiver – no switch is needed; the Receiver and Transmitter can be connected point-to-point with a single Cat 5e/6 cable.

## Configuration

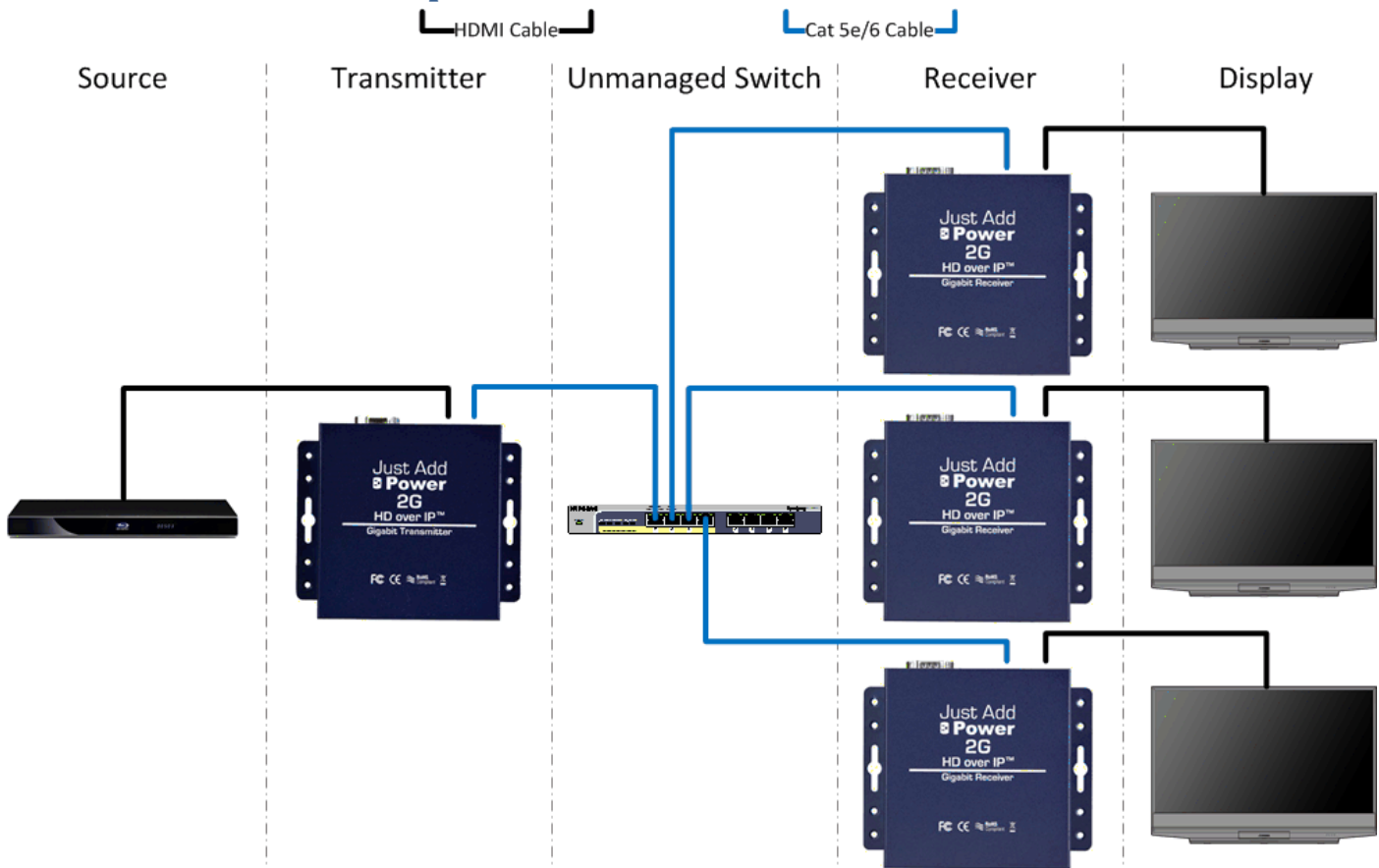
No configuration required.

One Just Add Power Transmitter/Receiver pair can be connected:

- Point-to-point with a Cat5 cable
- Through a switch
- Through an established network topology

When Just Add Power devices and other data share the same network switch, Just Add Power devices must be isolated from other data in separate VLANs.

## One Transmitter to Multiple Receivers



### Components

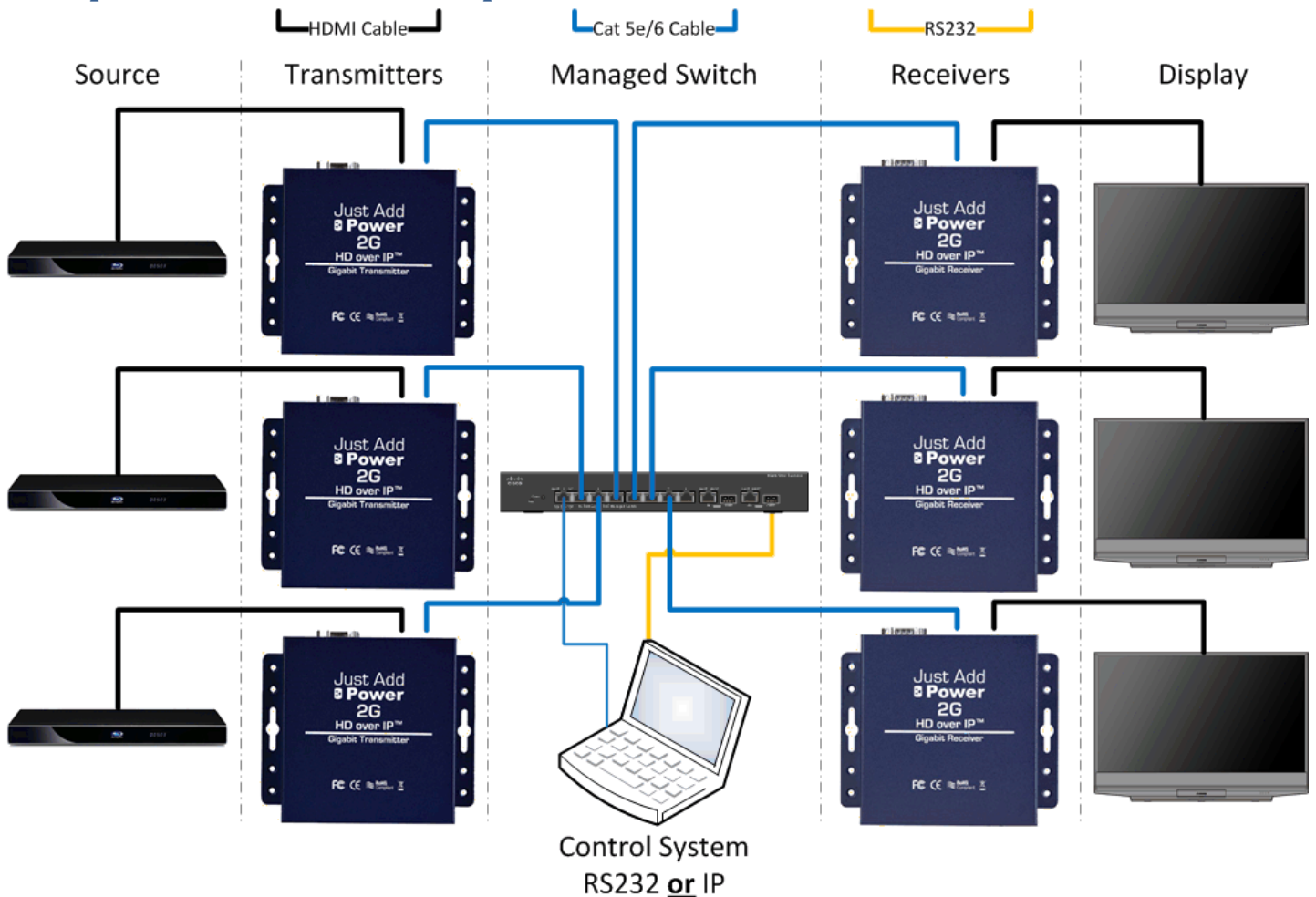
- 1 source device
  - 1 Just Add Power Transmitter
- Multiple displays
  - 1 Just Add Power Receiver per display
- 1 Unmanaged network switch or better
- 1 Cat 5e/6/7 cable per Just Add Power Transmitter and Receiver
- 1 HDMI cable per Just Add Power Transmitter and Receiver

### Configuraton

No configuration required if switch is dedicated to **ONLY** Just Add Power devices.

In a situation where there is already a network backbone in place, a **MANAGED** network switch is needed to separate Transmitter from regular network traffic. Otherwise, the Transmitter **WILL** prevent other network traffic from reaching its destination.

## Multiple Transmitters to Multiple Receivers



### Components

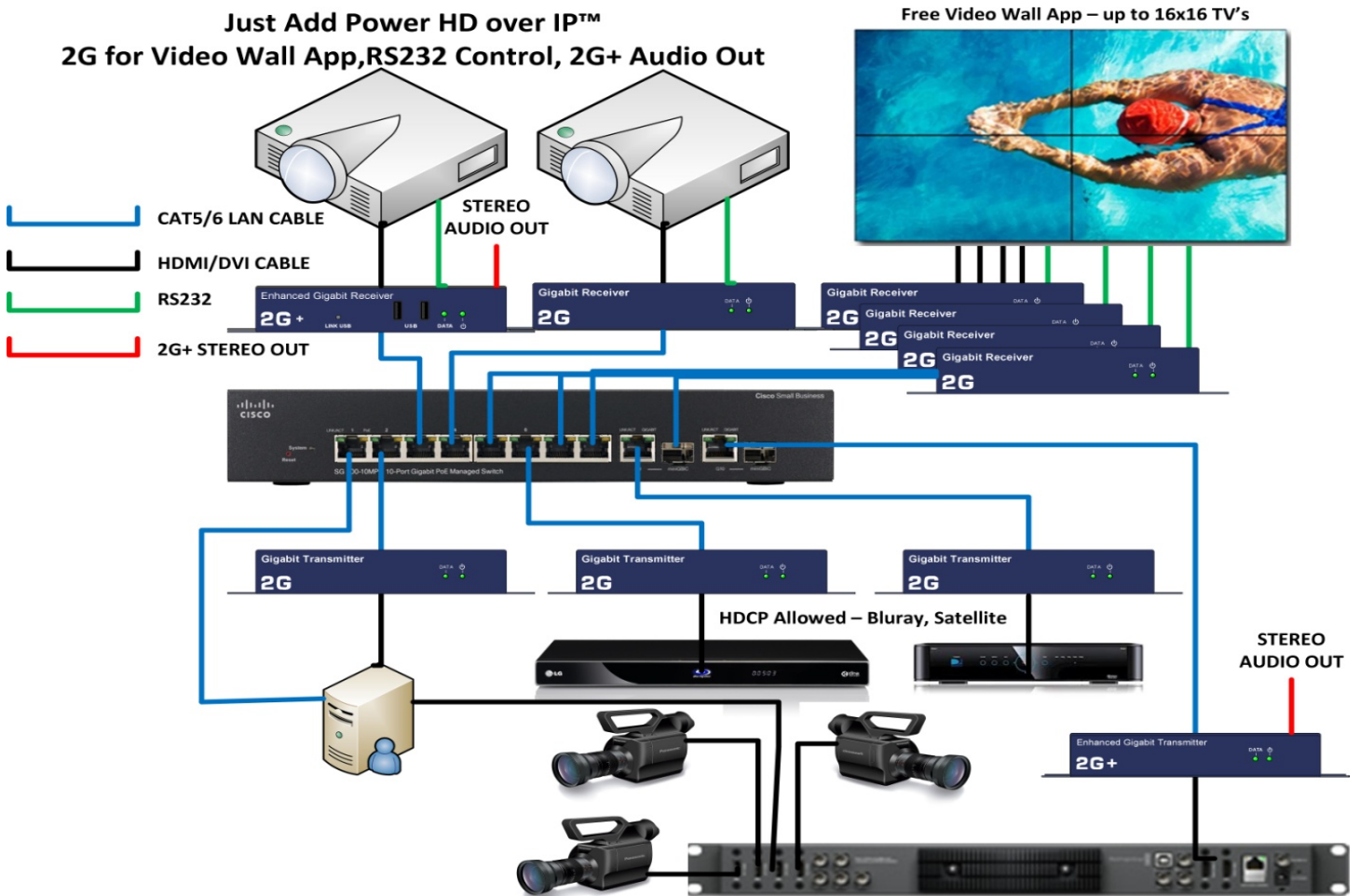
- Multiple source devices
  - 1 Just Add Power Transmitter per source device
- Multiple displays
  - 1 Just Add Power Receiver per display
- Managed network switch
- One HDMI cable per Just Add Power Transmitter and Receiver
- One Cat 5e/6/7 cable per Just Add Power Transmitter and Receiver
- RS-232- or IP-based control system to communicate with the managed network switch

### Configuration

When multiple Transmitters are traveling over the same network, the managed network switch must be configured so that Receivers are only watching one Transmitter at a time. Configuration options can be found in [System Configuration and Control](#).



## Multiple Transmitters to Multiple Receivers with Video Wall App



### Components

- Multiple source devices
  - 1x Just Add Power Transmitter per source device
- Multiple standalone displays or projectors
  - 1x Just Add Power Receiver per display or projector
- Video Wall Displays (any video wall size from 2x2 to 16x16 displays)
  - 1x Just Add Power Receiver per display – smaller bezel works best!
- Managed network switch
- One HDMI cable per Just Add Power Transmitter and Receiver
- One Cat 5e/6/7 cable per Just Add Power Transmitter and Receiver
- IP-based control system to communicate with the managed network switch and Just Add Power devices
- Requires [Layer 3 Configuration](#)

### Configuration

When multiple Transmitters are traveling over the same network, the managed network switch must be configured so that Receivers are only watching one Transmitter at a time. Configuration options can be found in [System Configuration and Control](#).

After system configuration is complete, setup each Video Wall. Contact [support@justaddpower.com](mailto:support@justaddpower.com) for documentation related to Video Wall Setup.

## MorePlay™ Feature-Set

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*All Just Add Power devices support all these features on one network cable:*

- Lossless 1080p video
- Instant, Seamless Switching
- Multi-channel Audio
- RS-232 Control (2-way)
- Video Wall
- EDID Magic™
- Image Push
- Image Pull
- On-Screen Display
- 3D Support
- IR Over IP
- Gigabit Ethernet
- DVI video formats with HDMI-to-DVI Adapter (sold separately)

*2G+ has these added features:*

- USB 2.0
- Stereo Audio extractor with adjustable Audio Delay
- HDMI pass-through on Transmitter
- 1-way CEC Control
- Locking HDMI cables
- Built-in RS-232 Null Modem
- See Appendix for more information

*AVP has all 2G+ features plus:*

- Dolby Digital Sound Processor – capable of converting multi-channel audio to 2-channel audio for distribution
- Line- and Mic-In ports on Transmitter – mixable with HDMI audio signal
- Audio Amplifier and Ground Loop Isolator on Stereo Audio extractor
- 2-way CEC Control

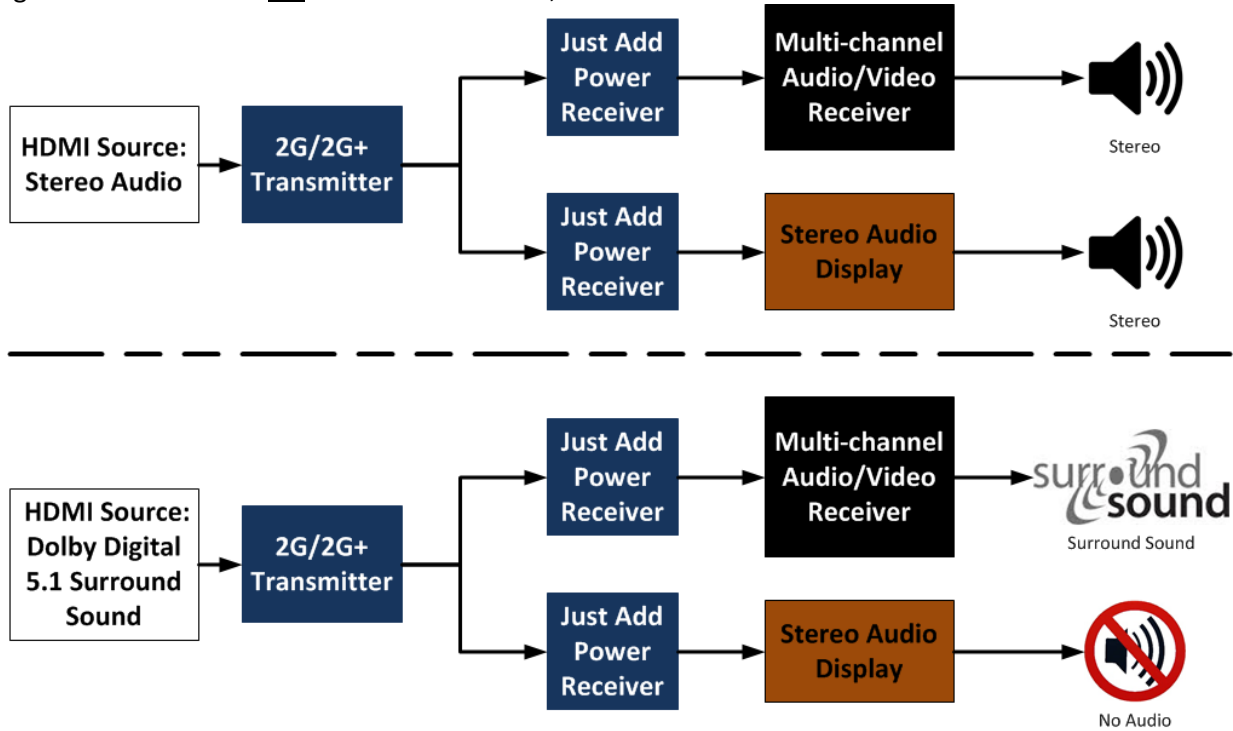
All Just Add Power 2G models are compatible with each other; mix-and-match in any combination!

### Comparison Chart

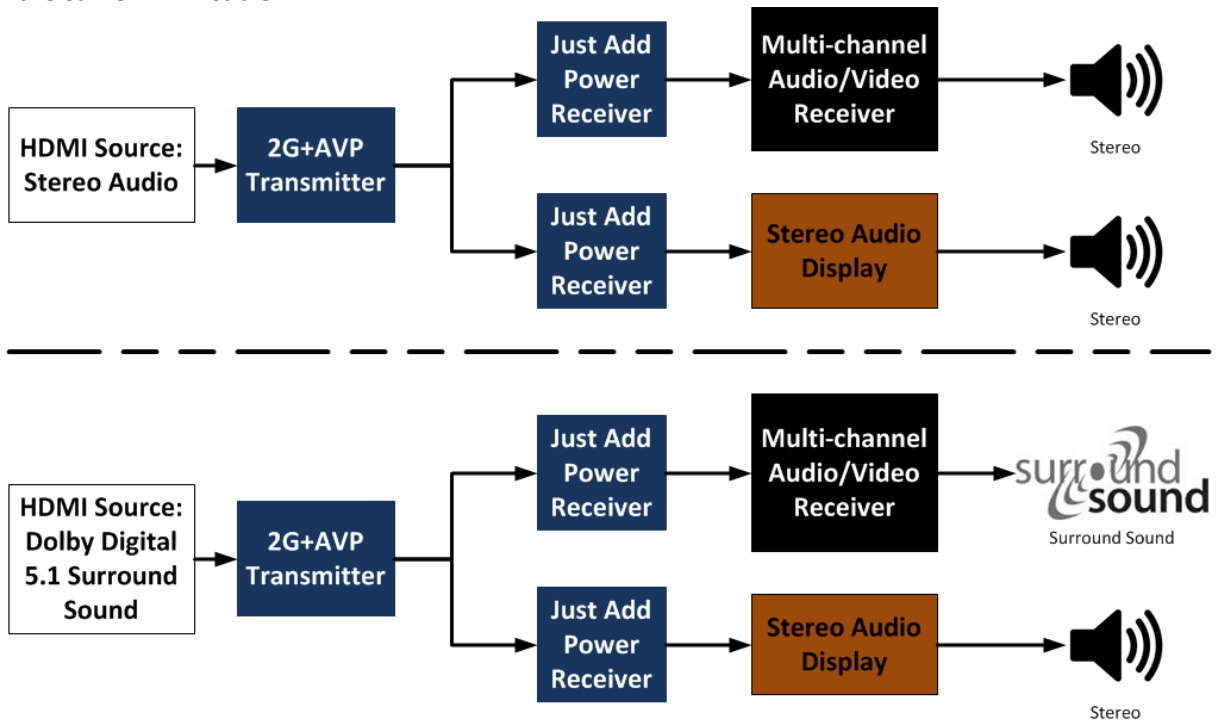
Feature/Function	2G	2G+	2G+AVP
Maximum LAN Bandwidth	150Mbps	150Mbps	150Mbps
Maximum Sources Supported per LAN	~4,000	~4,000	~4,000
Maximum HDMI Displays Supported per LAN	~65,000	~65,000	~65,000
Required Minimum Switch Speed	Gigabit	Gigabit	Gigabit
Compatible with All 2G Models			
HTTP Interface			
PCM 2.0 and Compressed Multi-Channel Audio Formats Supported (i.e. Dolby® 5.1)			
Integrated Stereo Audio Extractor (3.5mm) with up to 170ms of Audio Delay on Transmitter and Receiver			
Audio Amplifier and Ground Loop Isolator on Stereo Audio Extractor			
5.1 Dolby Digital transformation to 2-channel audio			
Mic- and Line-In 3.5mm ports, mixable with HDMI Audio signal			
Independent RS-232 Control Matrix Delivered Over LAN Connection			
Real-Time Management Console Interface via RS-232 or Telnet			
Integrated Null Modem Jumpers on RS-232			
1-way CEC over IP			
2-way CEC over IP Communication			
HDMI Pass-Through Port on Transmitter			
USB over IP Supported			
Locking HDMI Cables Supported			
HDMI Side-by-Side 3D Formats Supported			
Embedded Video Wall Application			
On Screen Display API			
Image Push – upload a background image			
Image Pull – preview video from a source or display			

# 2G+AVP Digital Sound Processor

HDMI is only capable of carrying **one** audio format at a time. In a distributed system, this means that each source is outputting either stereo audio **OR** multi-channel audio, never both.

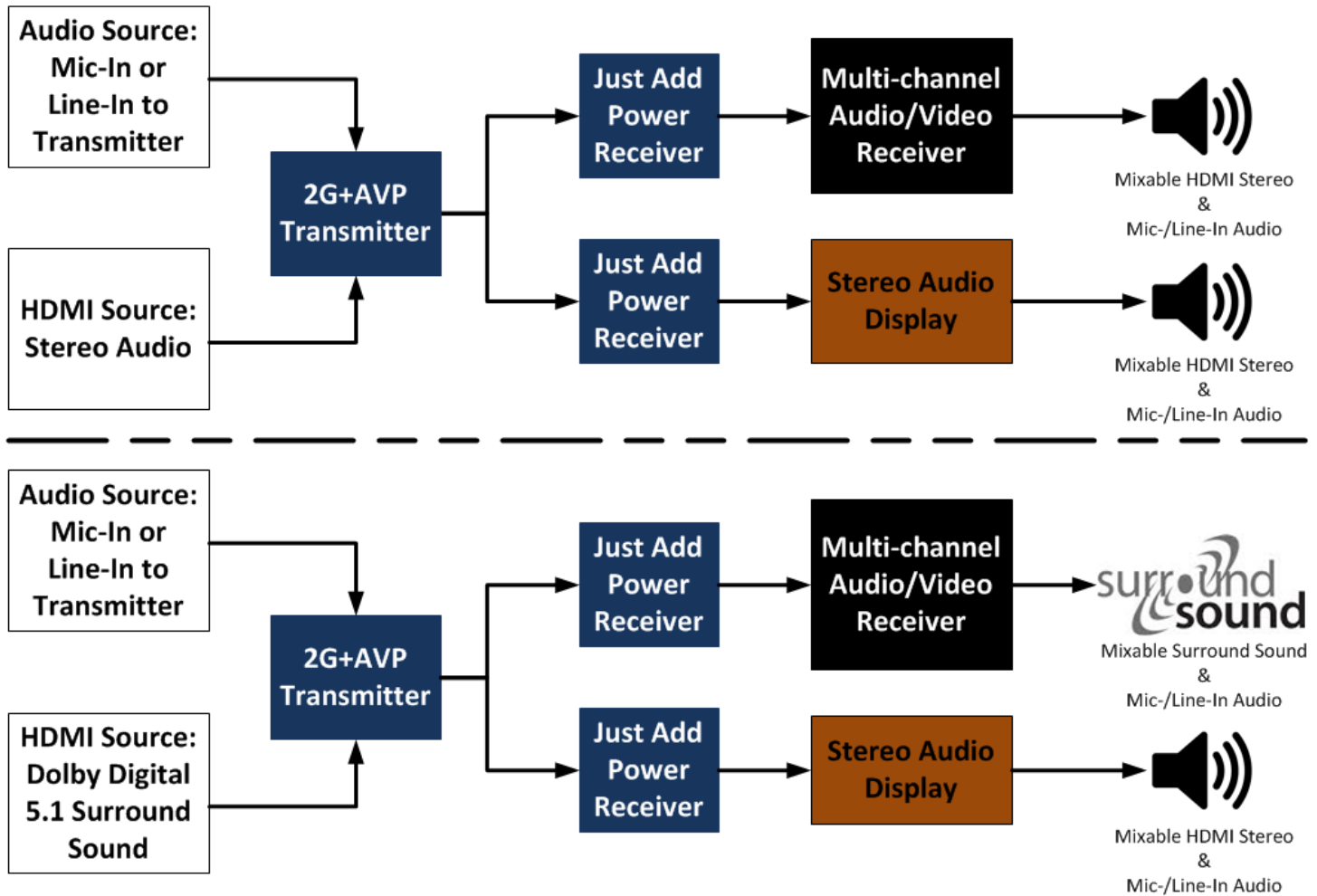


Just Add Power 2G+AVP Transmitter eliminates the hassle of distributing stereo and multi-channel with the inclusion of a Dolby Digital Sound Processor. This allows a source to output both stereo **AND** 5.1 Dolby Digital audio to an entire system on the same HDMI cable.



### Mic-In and Line-In










The Just Add Power 2G+AVP Transmitter also has Mic-In and Line-In ports. Using the Digital Sound Processor, HDMI audio and Mic-/Line-In audio can be output to **ANY** Just Add Power Receiver in the installation.



# Product Listing






Select the model that has the features for that zone. Mix-and-match 2G, 2G+, and 2G+AVP as needed.

## Transmitters

<b>Transmitters – Sources</b>				
<b>Model</b>	<b>PoE</b>	<b>Inputs</b>	<b>Description</b>	<b>Image</b>
<b>2G</b>				
<b>408A</b>		1	Standard Gigabit Transmitter	
<b>408PoE</b>	✓	1	PoE Gigabit Transmitter	
<b>439A</b>		3	3-in-1 Rackmount Transmitter	
<b>2G+</b>				
<b>418A</b>		1	Enhanced Gigabit Transmitter	
<b>418PoE</b>	✓	1	Enhanced PoE Gigabit Transmitter	
<b>428A</b>		1	SDI Gigabit Transmitter	
<b>428PoE</b>	✓	1	SDI PoE Gigabit Transmitter	
<b>449A</b>		3	Enhanced 3-in-1 Rackmount Transmitter	
<b>2G+AVP</b>				
<b>418AVP</b>	✓	1	A/V Pro DSP Enhanced Gigabit PoE Transmitter	



Receivers

Receivers - Displays			
Model	PoE	Description	Image
<b>2G</b>			
208A		Standard Gigabit Receiver	
208PoE	✓	PoE Gigabit Receiver	
<b>2G+</b>			
218A		Enhanced Gigabit Receiver	
218PoE	✓	Enhanced PoE Gigabit Receiver	
<b>2G+AVP</b>			
218AVP	✓	A/V Pro Enhanced Gigabit PoE Receiver	

Contact Information

Contact Just Add Power Worldwide to find a distributor near you.

Website

[www.justaddpower.com](http://www.justaddpower.com)

Email

[sales@justaddpower.com](mailto:sales@justaddpower.com)

Phone

Toll Free: +1-888-390-1750  
+1-800-615-0206

Main Office: +1-727-517-4053

Fax: +1-727-517-4054



















# Two Types of Systems

## Layer 2

Layer 2 describes a basic matrix switching system controlled via RS-232 or IP. Every display can be controlled to watch any source. Endpoint control is **NOT** accessible natively, but could be with creative programming or additional hardware.

## Layer 3

Layer 3 describes a matrix switching system controlled via IP that also supports endpoint control of RS-232 or CEC devices and console API features built into all Just Add Power devices. Console API features include video wall management, on-screen display, Image Pull™, and others.

Feature	Layer 2	Layer 3
Matrix Switching		
RS-232 control of endpoints	 Limited	
CEC (2G+ only)		
Video Wall Management		
Logical USB enable/disable		
On-screen Display		
Image Pull – preview video from a source or display		
Image Push – upload a background image		
Gigabit internet access on same CatX cable		



## Managed Ethernet Switches

When deciding on an Ethernet switch, treat the Just Add Power system like a network-controlled matrix switcher that just happens to be an Ethernet switch.

### Tested Switches

The following Managed Ethernet switches have been tested and found to be compatible with the Just Add Power HD over IP solution. This is not a complete list of switches that work with Just Add Power devices. Many switches that are not listed have been found by our dealers to work excellently.

Switch Make	Switch Model	Driver Supported	Layer 2 Capable	Layer 3 Capable
Cisco	SG300			
	SG500			
	Catalyst 2960G			
	Catalyst 3750			
Packedge	S24P			
	SW24-GBM			
Dell	PowerConnect 5400			
	PowerConnect 5500			
	PowerConnect 6200			

### Recommended Switches

Match total number of devices from the left-most column with the number of sources on the top row

Just Add Power Devices	Less than 8 Sources (Tx)	8-33 Sources (Tx)	34+ Sources (Tx)
2-51 devices (Tx + Rx)	Cisco SG300	Cisco SG300	Cisco SG300
52-400 devices (Tx + Rx)	Cisco SG500	<sup>‡</sup> Cisco SG500	Cisco SG500X
400+ devices (Tx + Rx)	Contact Support	Contact Support	Contact Support

<sup>‡</sup> If switches are located more than 5 meters (16 feet) from each other, the SG500X is required

## Power over Ethernet Specifications

Power over Ethernet form factors are available on both Just Add Power Transmitters and Receivers.

Just Add Power devices are **Class 3**, mid-power devices according to IEEE 802.3-2008 specifications. They will draw no more than **10 Watts** under normal operating circumstances.

When planning an installation using Power over Ethernet, plan for **10 Watts per port** with a Just Add Power PoE device.

Switch Model	PoE ports	Wattage Available	
		<u>P</u> model	<u>MP</u> model (if available)
Cisco SG300-10P/MP	8	62 Watts total	124 Watts total
Cisco SG300-28P/MP	24	180 Watts total	375 Watts total
Cisco SG300-52P/MP	48	375 Watts total	740 Watts total
Cisco SG500-28P/MPP	24	180 Watts total	740 Watts total
Cisco SG500-52P/MP	48	375 Watts total	740 Watts total
Cisco SG500X-24P/MPP	24	375 Watts total	740 Watts total
Cisco SG500X-48P/MPP	48	375 Watts total	740 Watts total
Packedge S24P8	8	15.4 Watts per port	
Packedge S24P	24	15.4 Watts per port	
Dell PowerConnect 5524P	24	15.4 Watts per port	
Dell PowerConnect 5548P	48	15.4 Watts per port	
Dell PowerConnect 6224P	24	15.4 Watts per port	
Dell PowerConnect 6248P	48	15.4 Watts per port	

\*\*All power specs taken from company data sheets on March 20, 2014\*\*

## Stacking Specifications

For a system with more than 51 devices, multiple switches must be used. However, the details of the project determine which type of switch and SFP module are needed.

### Switch Models

Recommended	Stacking Cable (Bandwidth)	Max Transmitters	Max Distance
<b>SG500 Stack</b>	RJ-45 (1Gb)	6-7 Tx	100 m/333 ft
	SFP Copper (5Gb)	33-34 Tx	5 m/16 ft
	SFP Fiber (1Gb)	6-7 Tx	10 km/6 mi
<b>SG500X Stack</b>	SFP Copper (5Gb)	33-34 Tx	5 m/16 ft
	SFP Fiber (10Gb)	67 Tx	10 km/6 mi

### SFP Modules

Copper	Bandwidth	Description	Length
<b>SFP-H10GB-CU1M</b>	10Gb/5Gb	Twinax cable, passive, 30 AWG	1 m/3 ft
<b>SFP-H10GB-CU3M</b>	10Gb/5Gb	Twinax cable, passive, 30 AWG	3 m/10 ft
<b>SFP-H10GB-CU5M</b>	10Gb/5Gb	Twinax cable, passive, 30 AWG	5 m/16 ft

Fiber	Bandwidth	Description	Max Distance
<b>SFP-10G-SR</b>	10Gb	850-nm wavelength Multimode fiber	300 m/1000 ft
<b>SFP-10G-LR</b>	10Gb	1310-nm wavelength Single-mode fiber	10 km/6 mi
<b>SFP-10G-LRM</b>	10Gb	1310-nm wavelength Single- or multimode fiber	300 m/1000 ft

### Additional Network Considerations

- Requires Multicast to be enabled on the network and IGMP Snooping to be disabled
- The factory default IP address of each 2G device is in the 169.254.X.X range.
- Devices automatically assign themselves an IP address. There will never be 2 devices in an installation with the same IP address as long as they are set to do this.
  - Static IPs can be set if reliable access to devices is required (JADConfig does this automatically)
  - Devices do not have to match the current IP scheme (if added to an established network).
- Devices have an accessible web page that can be used to check firmware version, upgrade firmware, or apply commands to the devices.
- Transmitters send a maximum of 150 Mbps per port. A gigabit managed network switch is needed.
- A managed switch is needed because traffic from 2G Transmitters must be separated from each other, and from regular network traffic.
  - **Analogy:** Our devices are allowed to drive on the **road (switches)** but they are like crazy drivers that take up the entire road and run everyone else off of it if they get in the way. By creating separate **lanes (VLANs)** we keep our crazy driver in his own lane so that he doesn't run over all of the other cars.
- **WILL NOT** work over a routed network; only works within a Local Area Network (LAN)

# Configuration and Control

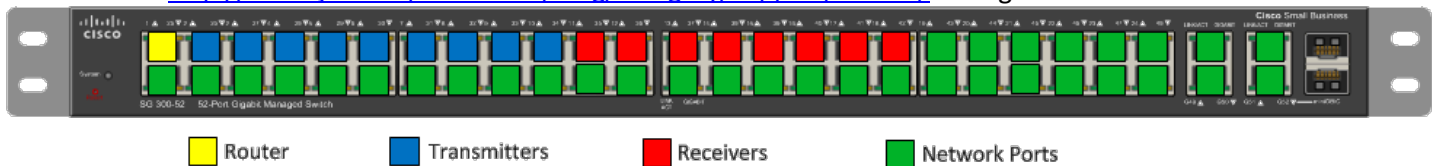
There are several options for configuring and controlling a Just Add Power system.

## Configuration

Just Add Drivers Configuration software – JADConfig – configures the switch and all attached Just Add Power devices and interfaces with licensed control system drivers.

### JADConfig

- Just Add Drivers Configuration software
  - Configures network switch
  - Configures Just Add Power devices in pre-defined IP ranges
  - Configures port 1 as LAN port for connection to the rest of network, Transmitters starting on port 2, and Receivers starting after Transmitters
  - Any unused ports at the end are placed on the LAN the same as port 1
- Works with switch models:
  - Cisco SG300 Series
  - Cisco SG500 Series – stacked and unstacked
  - Netgear GSM 7200 Series
  - Pakedge S24P
- Can be used with licensed control system drivers or custom control system drivers
- Go to <http://www.justaddpower.com/blog/category/support/drivers/> to begin



## Manual

Configuration of the network switch and Just Add Power devices can be done manually. Just Add Power has switch configuration guides for the following models of switches:

- Cisco SG300
- Cisco SG500
- Cisco Catalyst 2960 and 2960S
- Cisco Catalyst 3750
- Dell PowerConnect 3500
- Dell PowerConnect 6200
- Netgear GSM 7200
- Pakedge S24P
- Pakedge SW24-GBM

## Control

In a multiple-Transmitter system, a control system performs matrix switching and endpoint control. While Just Add Power provides licensed drivers for some control systems, we are capable of working with any control system capable of RS-232 or IP control.

### Licensed Control System Drivers

- IP-based drivers
  - Switching drivers
  - Receiver and Transmitter control drivers – gives access to RS-232, CEC, video wall, on-screen display, and other Just Add Power Layer 3 features.
  - **ONLY** work with switches configured with JADConfig
- Just Add Power Licensed Control System Drivers
  - AMX
  - Control4
  - Crestron
  - RTI
- E-mail [drivers@justaddpower.com](mailto:drivers@justaddpower.com) with the MAC Address of the control system processor (Serial Number for AMX) to receive a free license key
- Go to <http://www.justaddpower.com/blog/category/support/drivers/> to begin

### Other Control System Drivers

Just Add Power did not develop the control system drivers listed below, but collaborated in their development and compatibility with JADConfig. Click on the Control System name to jump to the informational page.

<u>Control System</u>	<u>Website</u>
• <a href="#">DTV Game Control</a>	<a href="http://www.dtvgamechanger.com">www.dtvgamechanger.com</a>
• <a href="#">Elan G</a>	<a href="http://www.elanhomesystems.com">www.elanhomesystems.com</a>
• <a href="#">MediaSwitcher</a>	<a href="http://www.justaddsoftware.net">www.justaddsoftware.net</a>
• <a href="#">URC Total Control powered by DashOS</a>	<a href="http://www.dashos.net">www.dashos.net</a>
• <a href="#">Vantage</a>	<a href="http://www.vantagecontrols.com">www.vantagecontrols.com</a>

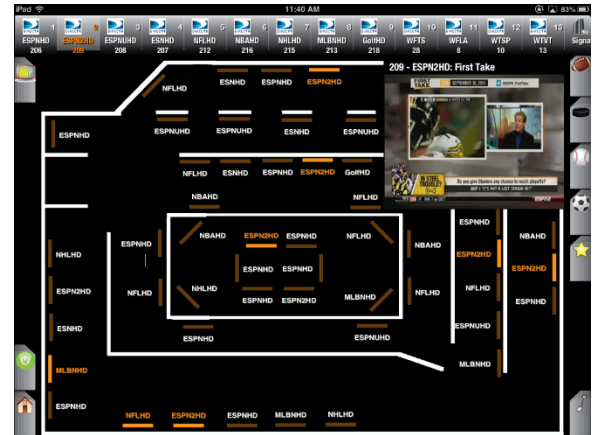
## DTV Game Control



The DTV GameControl application is the premiere iOS solution for DirecTV and Just Add Power in sports bars and restaurants. The Apple iPad application offers simple setup coupled with a high-end customer experience. The floor plan based app detects and controls all Just Add Power, DirecTV receivers, and Global Caché devices on a network. DTV GameControl creates a uniquely integrated programming guide, delivering sports content at your fingertips. This level of automation provides seamless and effortless control of the DirecTV system, putting what your customers want where they want to watch it. Now sports bars and restaurants can easily implement large scale multi-zone HDTV entertainment. DTVGameControl makes even the largest venues easy to manage, effortlessly controlling video walls and virtually unlimited screens and sources.

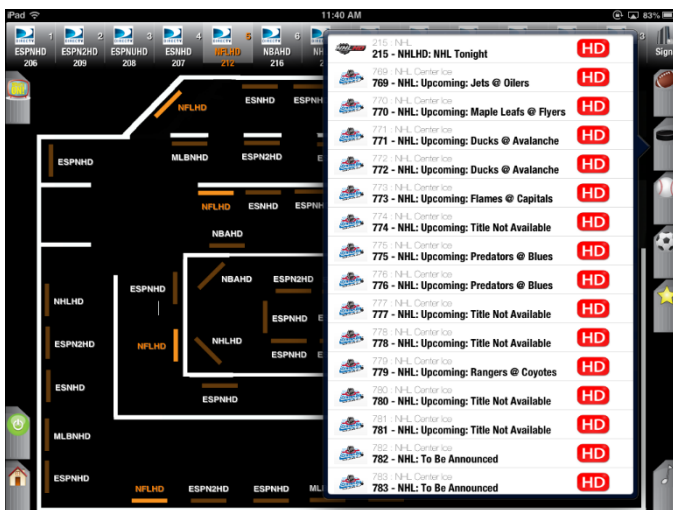
## Standard Features of DTV GameControl

- Multi page/floor plan
- Single or Multiple Video Wall control
- Just Add Power CEC and RS232 Support
- Global Cache support for industry IR controlled devices
- DBX and BSS Audio control Support
- System On Timers, including IO recall, TV Power, and DirecTV Channels
- Admin and User pass codes
- No PC for setup
- Backup to the iTunes cloud.

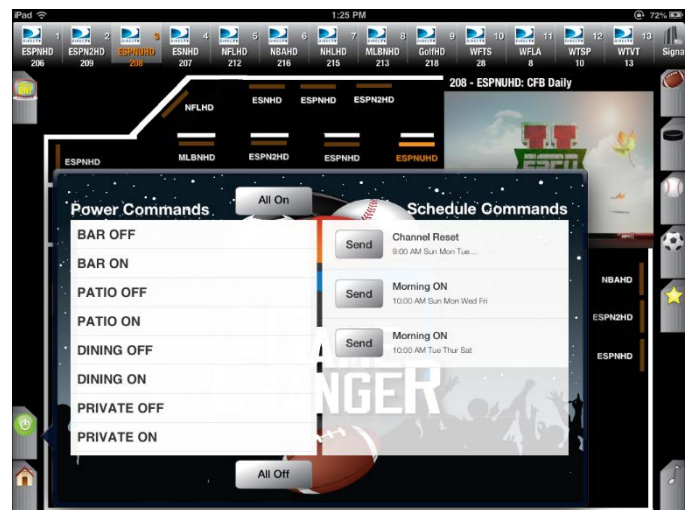


Floor Plan Layout

DTV GameControl application, created by Automation Connection, LLC, is the most innovative affordable subscription based control solution. DTV GameControl is offered through a dealer network with RMI and based out of St. Petersburg, FL. For further inquiries please go to [www.dtvgamechanger.com](http://www.dtvgamechanger.com).



Favorites



Power Commands

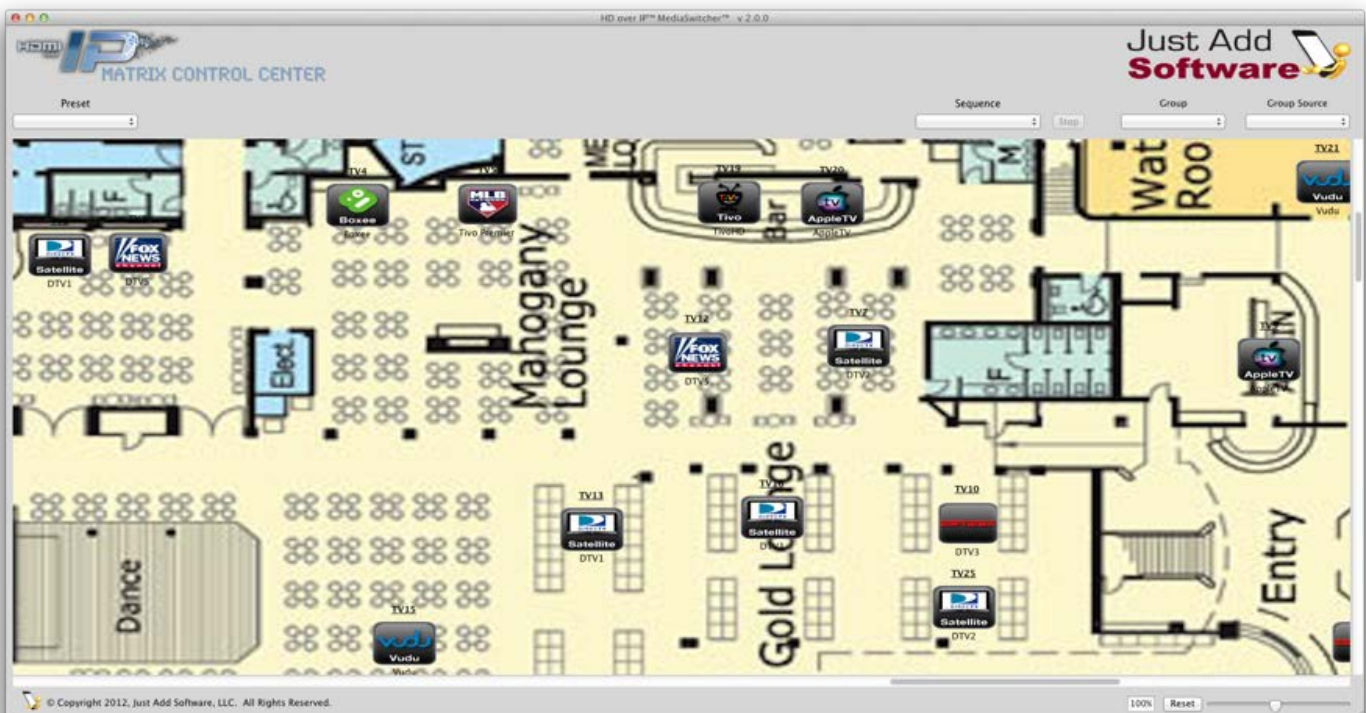


## Media Switcher

Just Add Software licenses Media Switcher - a software-based control system compatible with Mac, Windows, and Linux. Go to [www.justaddsoftware.net](http://www.justaddsoftware.net) for more information.



- Software-based control system – no proprietary control hardware required
- Ideal for installations with a computer as the point of control
- Built-in Video Wall application
- Customizable interface





## URC Total Control powered by DashOS

- Auto CEC Driver for Televisions and AVR's
- Auto Input Configuration Driver
- Platform for Just Add Power on URC's Automation Platform
- Cloud Logging for easy debug & troubleshoot
- Cloud Management & Monitoring of the entire system
- Ongoing Support for All Just Add Power Features Now and in the Future (as time permits)
- Reactive Push Notifications, Custom CEC & Shell, Video Wall, RS-232/Serial and More!
- **NOW FREE** for Just Add Power Customers!
- Go to [www.dashos.net](http://www.dashos.net) to begin



**Video Example:** <https://www.youtube.com/watch?v=pOVx96fipIA>

The image shows two screenshots of the Dash OS configuration interface. The left screenshot, titled 'Auto-Config Driver – Assign Inputs', shows the 'Step 7 AVR and TV Connections: Assign AV Sources to Devices with Inputs' screen. It features a 'Project Tree' on the left, a 'Select Device with Inputs' dropdown set to 'Just Add Power (Dash OS)', and a table of 'Available Inputs' with columns for 'Input' and 'Source'. The table lists Input 1 (Apple TV), Input 2 (Roku), Input 3 (Media Center), and Input 4. The right screenshot, titled 'Auto-Config Driver – Assign Outputs', shows the 'Step 7 AVR and TV Connections: Assign AV Sources to Devices with Inputs' screen. It features a 'Project Tree' on the left, a 'Select Device with Inputs' dropdown set to 'Television (Living Room)', and a table of 'Available Inputs' with columns for 'Input' and 'Source'. The table lists HDMI 1 through HDMI 5, with sources like 'HDMI IN 1', 'HDMI IN 2', 'HDMI IN 3', and 'Just Add Power-Output 1'. To the right of this table is a list of 'Available Devices' with 'Just Add Power...' repeated for each device.

Auto-Config Driver – Assign Inputs

Auto-Config Driver – Assign Outputs

The image shows a '2-Way Module Command' dialog box for 'CEC Driver 1'. It has a 'Name' field with 'Send Just Add Power Custom CEC', an 'Available Devices' dropdown set to 'Television [Living Room]', and an 'Available Command' dropdown set to 'Custom Shell Command'. The 'Parameters' section has a 'Shell Command' field and an 'Example' field with 'cec\_tv\_off.sh'. There is a 'Result' section with a 'Save the result' checkbox and a 'Variable' dropdown. 'OK' and 'Cancel' buttons are at the bottom.

CEC Driver 1

The image shows a '2-Way Module Command' dialog box for 'CEC Driver 2'. It has a 'Name' field with 'Send Just Add Power Custom CEC', an 'Available Devices' dropdown set to 'Television [Living Room]', and an 'Available Command' dropdown set to 'Custom CEC Bytes'. The 'Parameters' section has a 'Bytes to Send' field and an 'Example' field with '0xEF 0x82 0x20 0x00'. There is a 'Result' section with a 'Save the result' checkbox and a 'Variable' dropdown. 'OK' and 'Cancel' buttons are at the bottom.

CEC Driver 2

## Vantage

- Supports Cisco SG300 and SG500
- Fully bi-directional driver
- Easy drag-n-drop setup – single displays to full video walls
- Equinox compatible! Video Widget automatically added to EQ touchscreens and EQ Apps.
- Supports full zone and source control/feedback
- Personalized user experience based on profiles and widgets

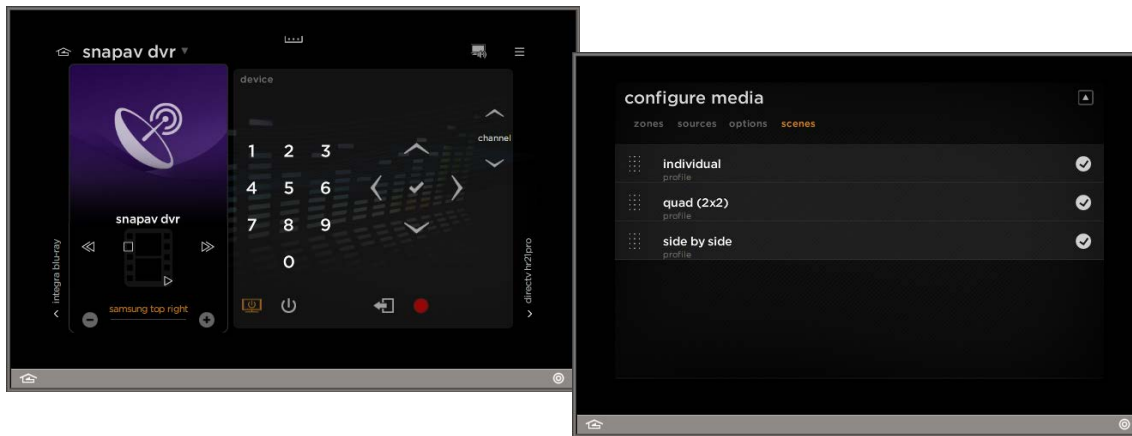


## Links

<http://www.vantagecontrols.com/products/widgets/video-widget.aspx>

[http://dealer.vantagecontrols.com/resources-tools/issheets.php?t=Integration%20Guide&s=category\\_c](http://dealer.vantagecontrols.com/resources-tools/issheets.php?t=Integration%20Guide&s=category_c)

## User Interface – Equinox (touchscreens and apps)



## Design Center – Project Programming Tool

Input Name	Connected Source	Widget Action
VGA		
HDMI 4		
HDMI 3		
HDMI 2		
HDMI	Top Left Zone	
Blu-Ray In		
Cameras In		
DirecTV In		
SVideo		
Component 2		
Component		
Video 2		
Video		
Tuner		

Name	Top Left Zone
Category	Video Zone
Display Name	Top Left
VID	53
Area	Project : Conference Room
Log Level	None
Position	1
Modes	
Mode	
Column Position	1
Total Columns	1
Total Rows	1
Row Position	1
Mode	
Column Position	1
Total Columns	2
Total Rows	1
Row Position	1
Mode	
Column Position	1
Total Columns	2
Total Rows	2
Row Position	1

**Object Explorer**

**Drivers**

Views: [Icons]

- Jinan
- JiuZhou
- Just Add Power**
- Cisco SG300 2G
- JVC

Show Icon Legend

**Vantage Objects**

**Drivers**

### Custom Control System Drivers

Just Add Power can provide the information needed to allow a dealer to write a custom control driver that works with **ANY** control system capable of sending IP or RS-232 commands. Please contact [support@justaddpower.com](mailto:support@justaddpower.com) for more information.

Just Add Power has examples of drivers for these control systems that can be modified to fit the size of the system:

- Control4
- Crestron
- Elan G
- RTI
- Savant
- URC

## Certifications

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- HDMI Certified
- HDCP Compliant
- FCC/CE/ROHS Compliance
- Dolby Digital Certification
  - Manufactured under license from Dolby Laboratories (Dolby and the double-D symbol are trademarks of Dolby Laboratories)

# Appendix

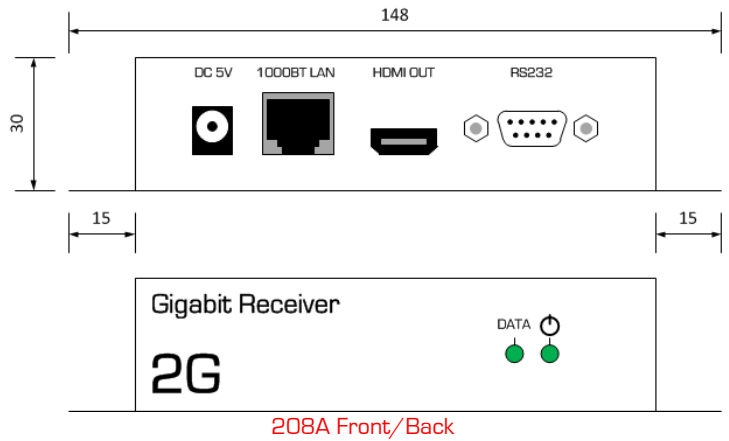
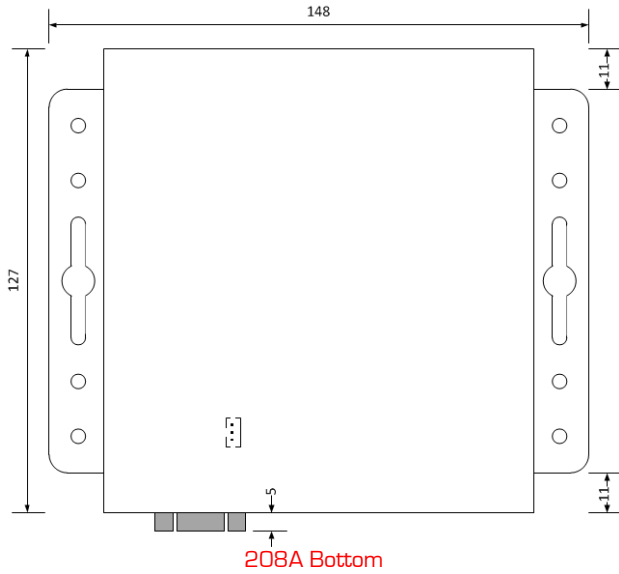
## Dimensions

Model Number	Name	Dimensions (mm)	Description
<b>208A</b>	2G Receiver	148 x 127 x 30	Gigabit Receiver
<b>208PoE</b>	2G PoE Receiver	189 x 127 x 28	Gigabit Power Over Ethernet Receiver
<b>218A</b>	2G+ Receiver	148 x 127 x 30	Enhanced Gigabit Receiver
<b>218PoE</b>	2G+ PoE Receiver	186 x 127 x 30	Enhanced Gigabit Power Over Ethernet Receiver
<b>218AVP</b>	2G+AVP Receiver	186 x 127 x 30	A/V Pro Enhanced Gigabit Power Over Ethernet Receiver
<b>408A</b>	2G Transmitter	148 x 127 x 30	Gigabit Transmitter
<b>408PoE</b>	2G PoE Transmitter	187 x 127 x 30	Gigabit Power Over Ethernet Transmitter
<b>418A</b>	2G+ Transmitter	160 x 127 x 31	Enhanced Gigabit Transmitter
<b>418PoE</b>	2G+ PoE Transmitter	199 x 127 x 31	Enhanced Gigabit Power Over Ethernet Transmitter
<b>418AVP</b>	2G+AVP Transmitter	199 x 127 x 31	A/V Pro DSP Enhanced Gigabit Power Over Ethernet Receiver
<b>428A</b>	2G+ SDI Transmitter	160 x 127 x 31	HD-SDI to HDMI Enhanced Gigabit Transmitter
<b>428PoE</b>	2G+ SDI Transmitter	199 x 127 x 31	HD-SDI to HDMI Enhanced Gigabit Power Over Ethernet Transmitter
<b>439A</b>	2G Rackmount Transmitter	429 x 250 x 44.5	3-in-1 Gigabit Transmitter
<b>449A</b>	2G+ Rackmount Transmitter	429 x 250 x 44.5	3-in-1 Enhanced Gigabit Transmitter

## Diagrams

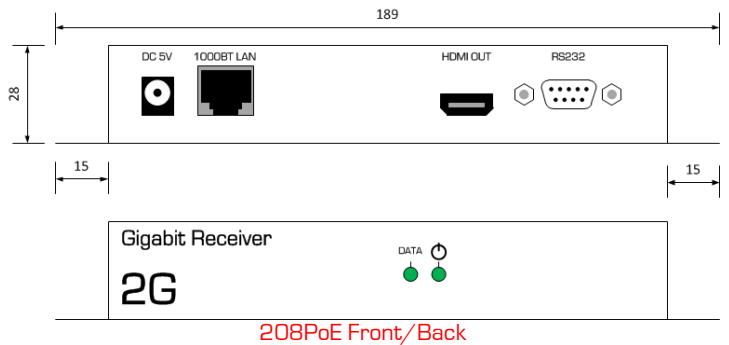
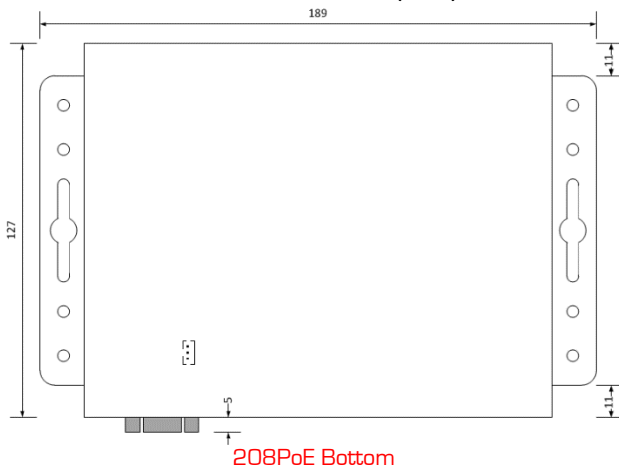
### 208A

All measurements in millimeters (mm)



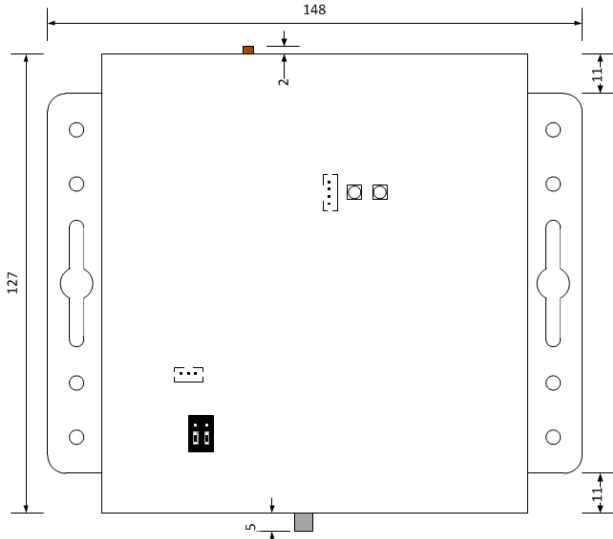
### 208POE

All measurements in millimeters (mm)

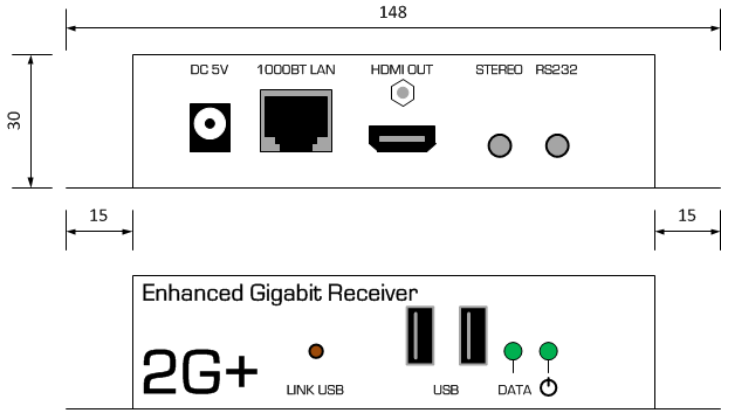


## 218A

All measurements in millimeters (mm)



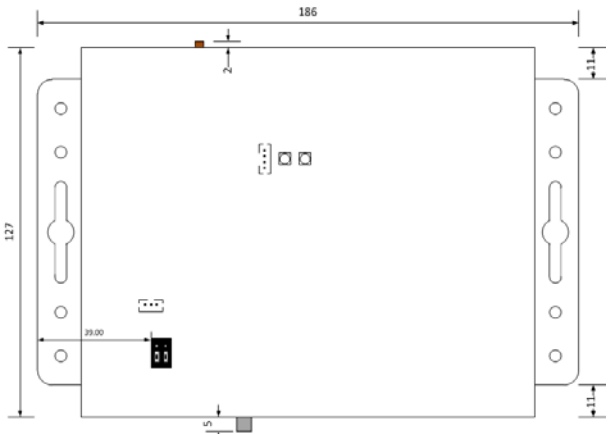
218A Bottom



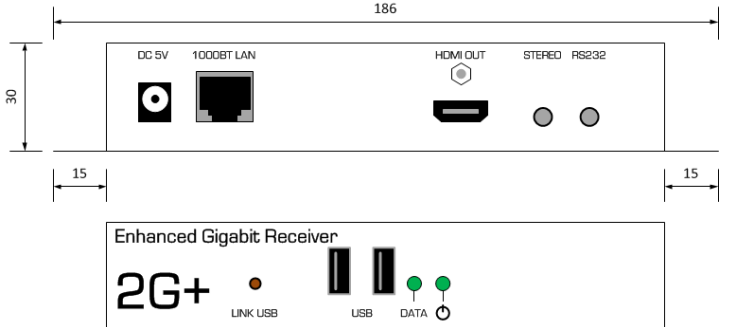
218A Front/Back

## 218PoE

All measurements in millimeters (mm)



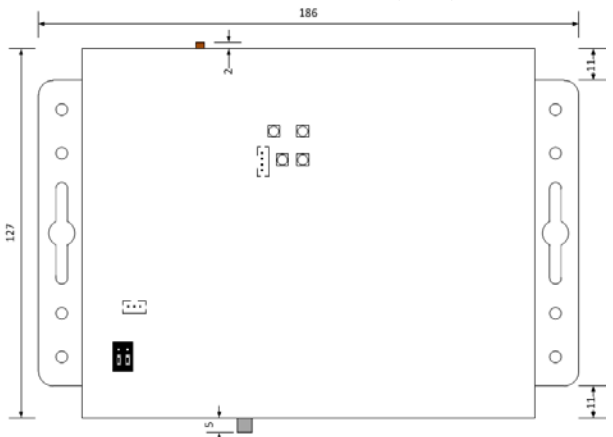
218PoE Bottom



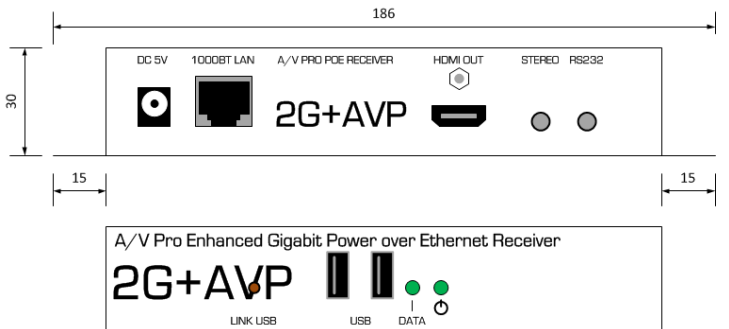
218PoE Front/Back

## 218AVP

All measurements in millimeters (mm)



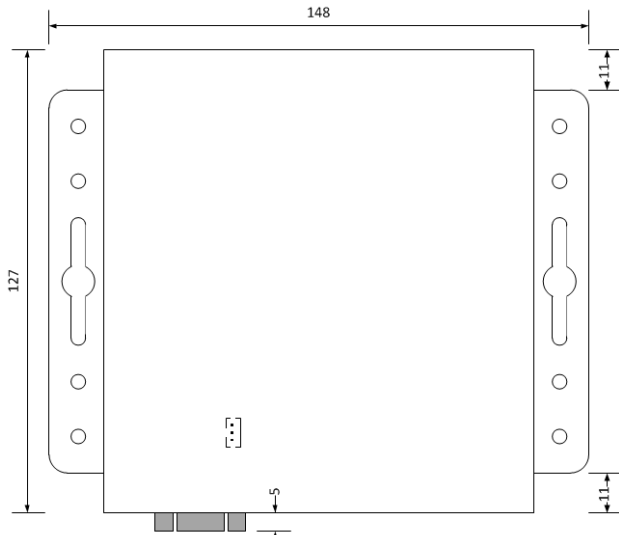
218AVP Bottom



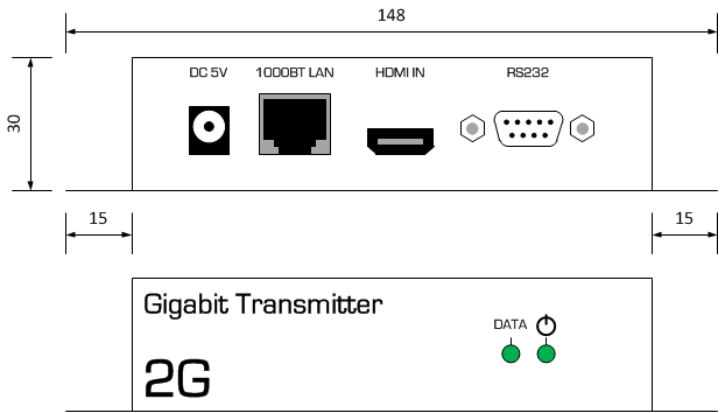
218AVP Front/Back

## 408A

All measurements in millimeters (mm)



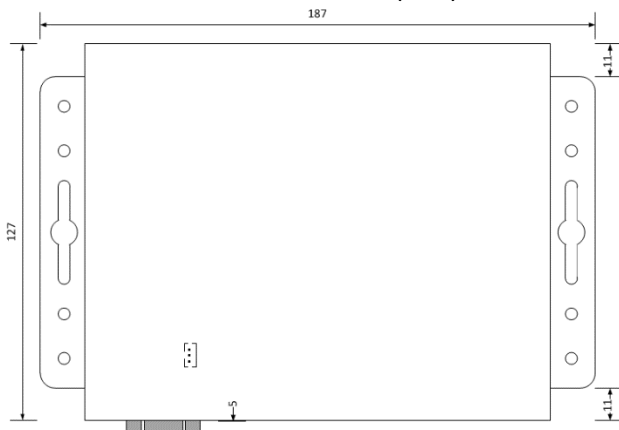
408A Bottom



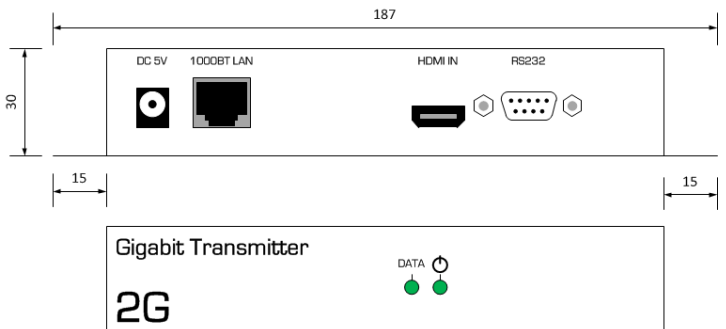
408A Front/Back

## 408PoE

All measurements in millimeters (mm)



408PoE Bottom

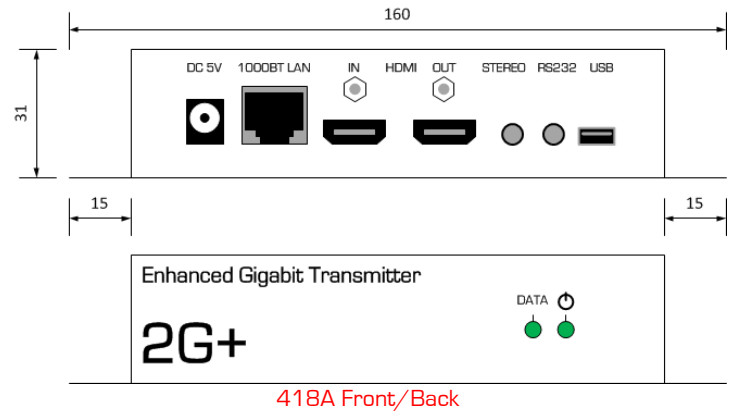
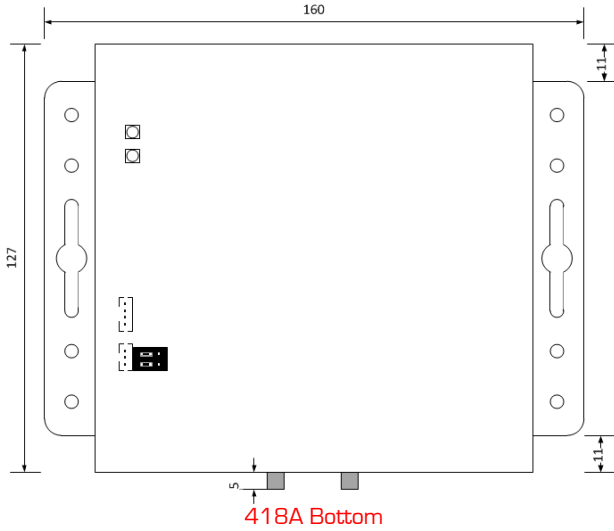


408PoE Front/Back



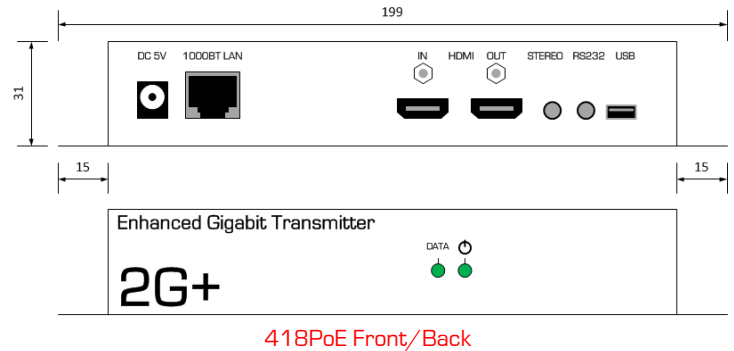
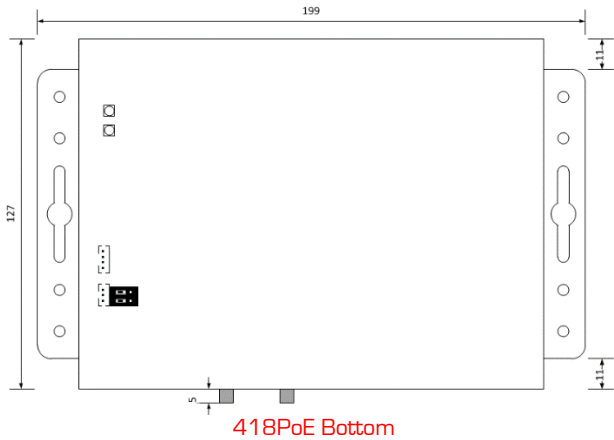
## 418A

All measurements in millimeters (mm)



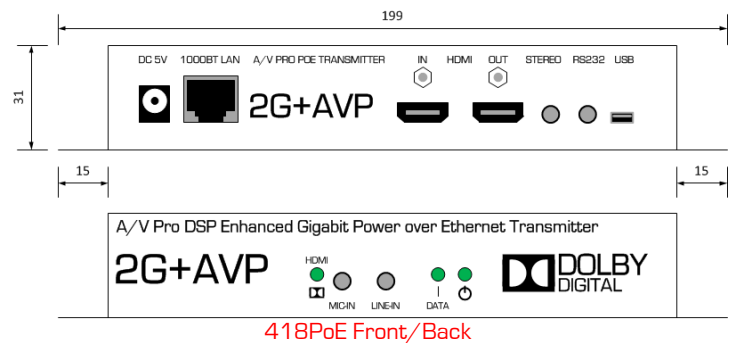
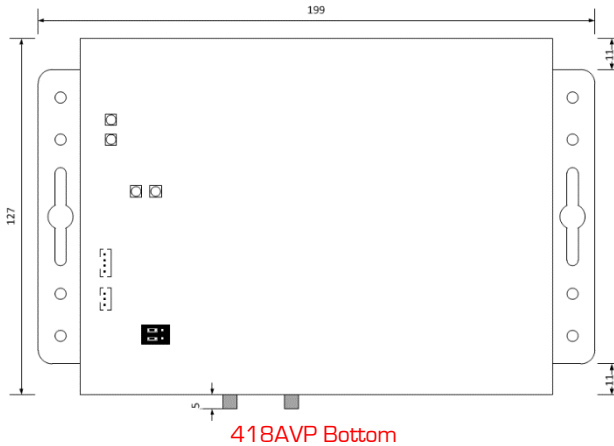
## 418PoE

All measurements in millimeters (mm)



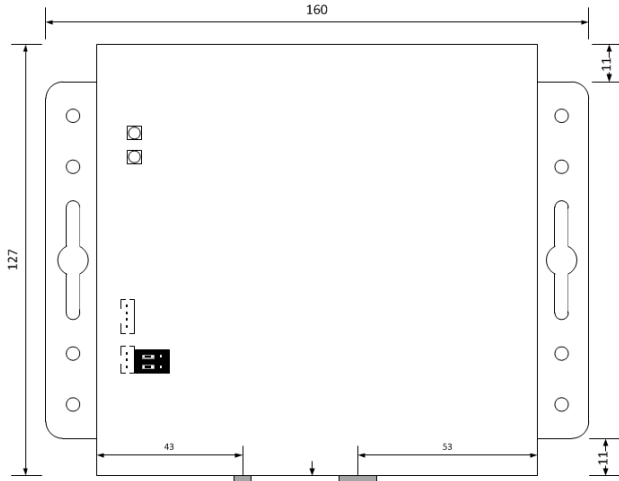
## 418AVP

All measurements in millimeters (mm)

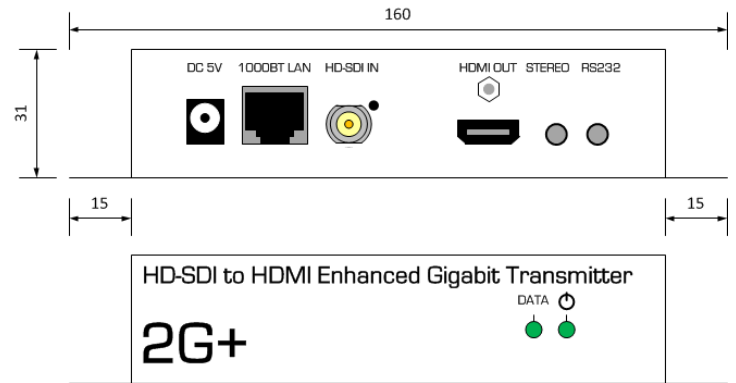


## 428A

All measurements in millimeters (mm)



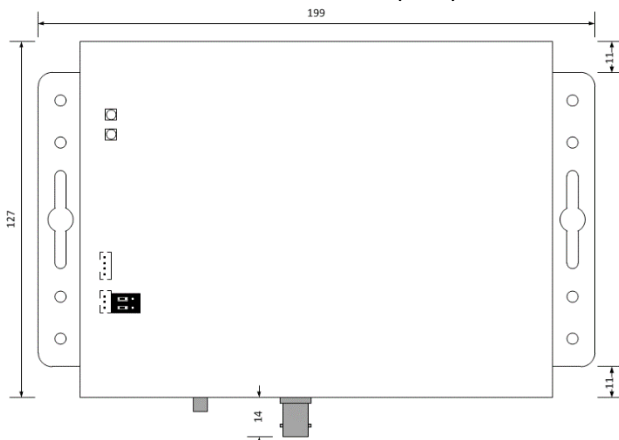
428A Bottom



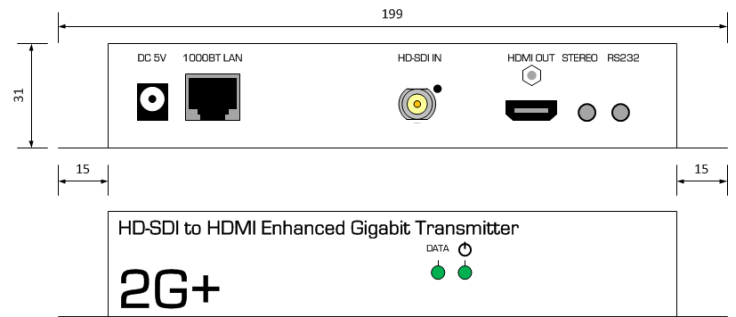
428A Front/Back

## 428PoE

All measurements in millimeters (mm)



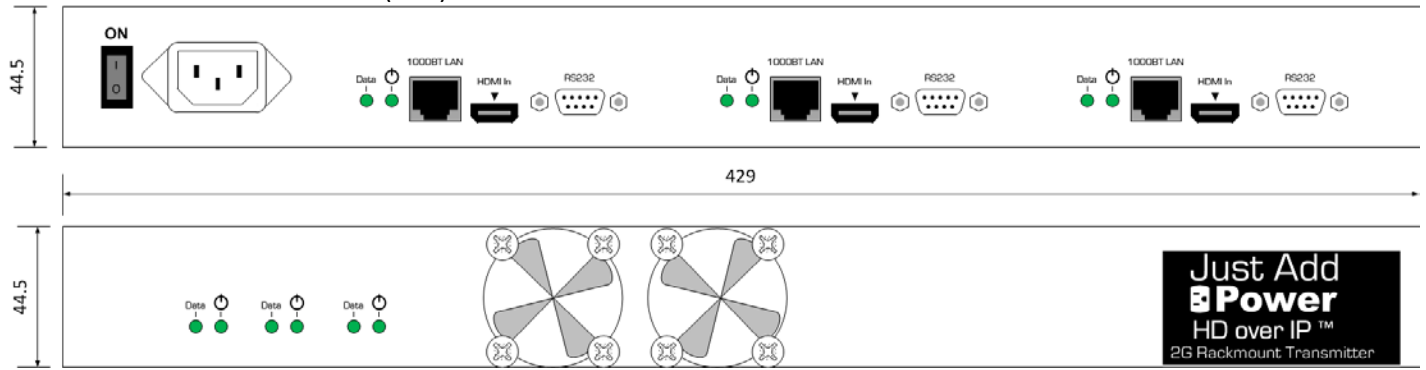
428PoE Bottom



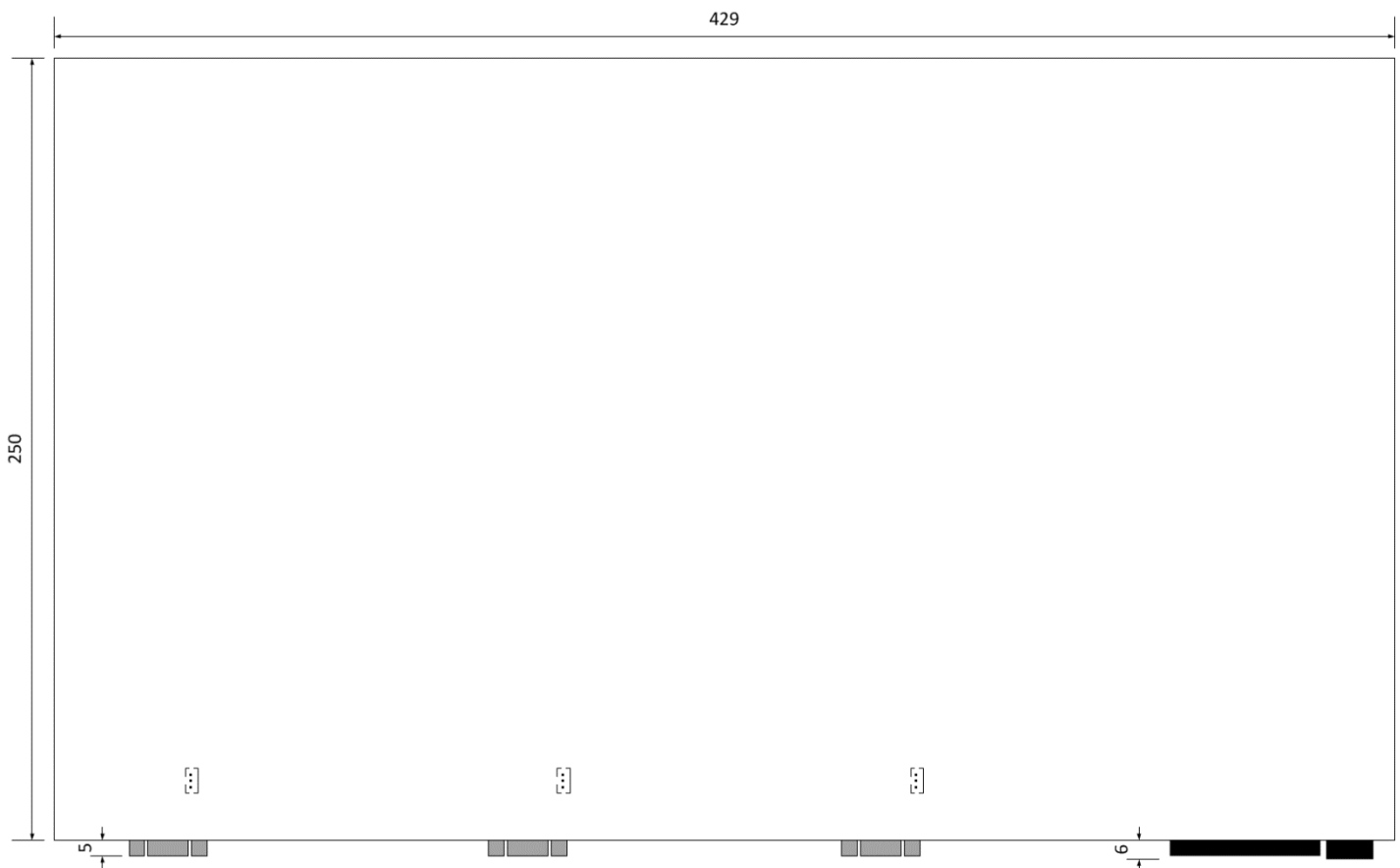
428PoE Front/Back

### 439A

All measurements in millimeters (mm)



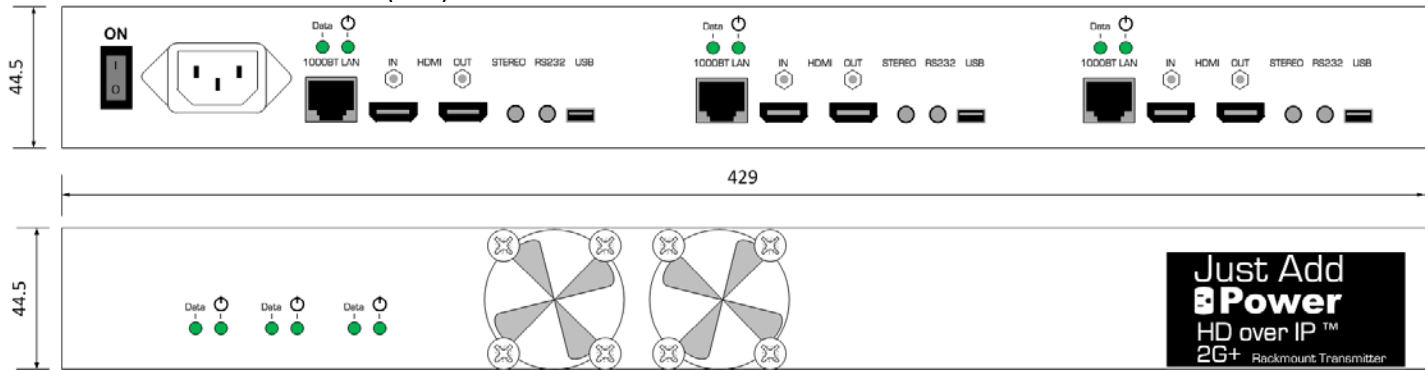
439A Front/Back



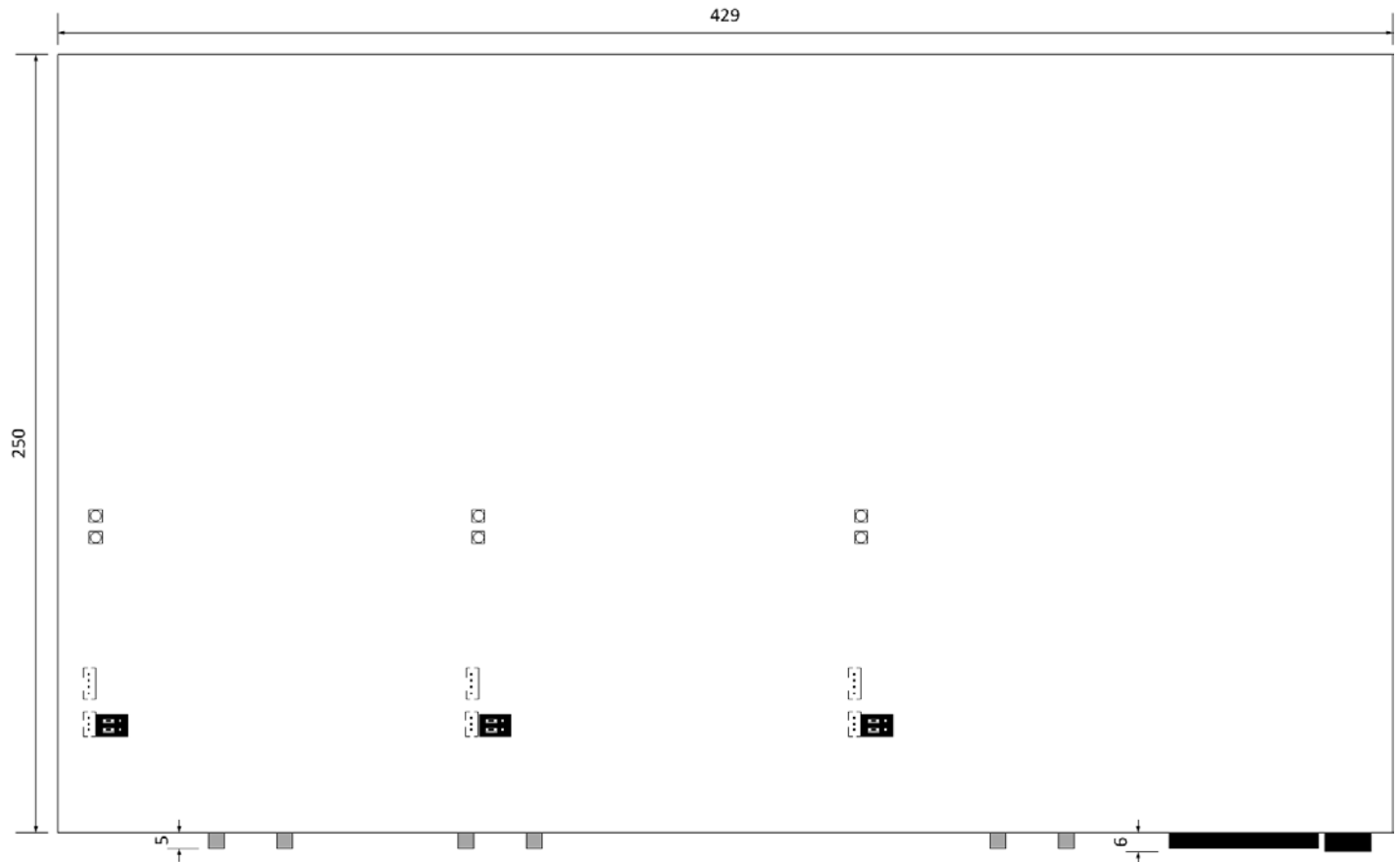
439A Bottom

### 449A

All measurements in millimeters (mm)



449A Front/Back



449A Bottom