

User Manual SI-S311

3x1 BYOM switcher with wireless presentation

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Version: USB-SW21 _2025V1.0



Preface

Read this user manual carefully before using the product. Pictures shown in this manual are for reference only. Different models and specifications are subject to real product.

This manual is only for operation instruction, please contact the local distributor for maintenance assistance. The functions described in this version were updated till July, 2025. In the constant effort to improve the product, we reserve the right to make functions or parameters changes without notice or obligation. Please refer to the dealers for the latest details.

FCC Statement

This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. It has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a commercial installation

Operation of this equipment in a residential area is likely to cause interference, in which case the user at their own expense will be required to take whatever measures may be necessary to correct the interference.

Any changes or modifications not expressly approved by the manufacture would void the user's authority to operate the equipment.









SAFETY PRECAUTIONS

To ensure the best performance of the product, please read all the instructions carefully before using the device. Save this manual for further reference.

- Unpack the equipment carefully and save the original box and packing material for possible future shipment.
- Follow basic safety precautions to reduce the risk of fire, electrical shock and injury to people.
- Do not dismantle the housing or modify the module. It may result in electrical shock or burn.
- Using supplies or parts not meeting the products' specifications may cause damage, deterioration, or malfunction.
- Refer all servicing to qualified service personnel.
- To prevent fire or shock hazard, do not expose the unit to rain, moisture or install this product near water.
- Do not put any heavy items on the extension cable in case of extrusion.
- Do not remove the housing of the device as opening or removing housing may expose you to dangerous voltage or other hazards.
- Install the device in a place with good ventilation to avoid damage caused by overheating.
- Keep the module away from liquids.
- Spillage into the housing may result in fire, electrical shock, or equipment damage. If an object or liquid falls or spills on to the housing, unplug the module immediately.
- Do not use liquid or aerosol cleaners to clean this unit. Always unplug the power to the device before cleaning.
- Unplug the power cord when left unused for a long period of time.
- Information on disposal for scrapped devices: do not burn or mix with general household waste, please treat them as normal electrical wastes.



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1. Product Introduction

The SI-S311 is a high-performance 3x1 BYOM (Bring Your Own Meeting) Presentation Switcher designed to simplify and enhance your meeting or presentation experience. This device supports both HDMI and USB-C wired inputs with resolutions up to 4K60 4:4:4, ensuring high-quality video output. It also features wireless presentation capabilities via Miracast, Airplay, Chrome Cast, and optional SiMA Dongles, making it suitable for various applications. The SI-S311 provides dynamic or manual USB host switching, split screen presentation in wireless mode, extensive EDID and HDCP management, audio de-embedding, and a Web-UI for easy configuration and management. Additionally, it supports 1G Ethernet to USB Host, touch display, and reverse control of connected PCs, making it a versatile solution for modern presentation needs. Its fan-less design and easy installation options make it ideal for meeting rooms, educational settings, and collaborative areas.

1.1 Key Features

- 3x1 BYOM Presentation Switcher
- HDMI and USB-C wired inputs up to 4K60 4:4:4 resolution
- Dynamic or manual USB host switching for wired sources in conferencing applications that utilize room USB peripherals
- Wireless presentation via Miracast, Airplay, Chrome Cast, App, and/or optional SiMA Dongles
- Supports split screen presentation in wireless mode
- Extensive EDID and HDCP management
- Secure AES-256Bit + RSA-1024Bit encrypted wireless transmission
- Audio de-embedding to balanced analog output
- Web-UI for configuration and management
- Open API for external control system
- Management and mass-deployment software
- 1G Ethernet to USB Host
- Touch display support
- Reverse control of connected PC via USB, Miracast, or Dongle from touch display or keyboard and mouse



- Built-in whiteboard and annotation for wireless presentation
- Easy installation beneath a table or desk with included mounting brackets
- User customizable welcome screen
- Fan-less design

1.2 Package List

- 1x SI-S311 Presentation Switcher
- 1x Power Supply (24V DC)
- 1x Mounting Brackets with Screws (attached by default)
- 1x 3-pin Phoenix Connector (RS-232)
- 1x 5-pin Phoenix Connector (Audio)

Note: Please contact your distributor immediately if any damage or defect in the components is found.

1.3 Optional Accessories

Wireless SiMA Dongle: SI-DH and SI-DC, used for plug & play wireless mirroring from Windows or MAC computer to the main screen.

- SI-DH is a HDMI wireless SiMA Dongle that allows participants to easily share content from a laptop or HDMI device to the SI-S311 base unit. Power is supplied by an auxiliary USB Type A connector. It is designed as a cross platform and plug and play device with no additional driver installation needed. This technology allows you to start a transmission and begin sharing content by just connecting the wireless SiMA Dongle into the source and pushing the surface. An LED indicator allows the user to know the status of the wireless SiMA Dongle at any time.
- SI-DC is a USB-C wireless SiMA Dongle that allows participants to easily share content from a laptop or USB-C video device to the SI-S311 base unit. Power is supplied directly through the same connector. It is designed as a cross platform and plug and play device with no additional driver installation needed. This technology allows you to start a transmission and begin sharing content by just connecting the wireless SiMA Dongle into the source and pushing the surface. An LED indicator allows the user to know the status of the wireless SiMA Dongle at any time.



1.4 Customer Service

TiGHT AV provide a limited warranty for the product within **five years** counting from date of purchase (The purchase invoice shall prevail).

For more information see TiGHT AV general Warranty Statement at https://tightav.com/warranty-statement or just scan the QR-code below.





2. Technical Specification

Video		
Mids a larger	(1) HDMI 2.0b, (1) USB-C 2-lane DisplayPort alt mode,	
Video Input	DisplayPort 1.4a, (1) Wireless	
Input Connector	(1) Type-A female HDMI, (1) USB Type-C	
HDMI Input Resolution	Up to 4K@60Hz 4:4:4	
USB-C Input Resolution	Up to 4K@60Hz 4:4:4	
Video Output	(1) HDMI 2.0b	
Output Connector	(1) Type-A female HDMI	
HDMI Output Resolution	Up to 4K@60Hz 4:4:4	
HDCP Version	HDCP 2.x/1.x	
AirPlay Resolution	Up to 1080P@60Hz	
Miracast Resolution	Up to 1080P@60Hz	
SiMA APP Resolution	Up to 1080P@60Hz	
SiMA dongles SI-DC/SI-HC		
Resolution	Up to 4K@60Hz	
Audio		
HDMI Embedded Audio	PCM 2CH	
Format	T GW 2GT	
Audio Output Connector	(1) 5-pin terminal block. Balanced line audio output.	
Frequency Response	-0.02~+0.08 dB (20Hz~20KHz)	
Max Output Level	±0.9V	
THD+N	-85dB	
SNR	106dB	
Crosstalk Isolation	100dB	
L-R Level Deviation	OdB	
Output Load Capability	2ΚΩ	
Noise Level		



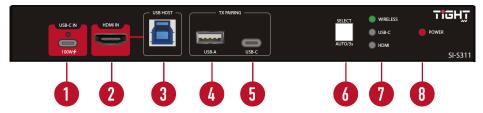
USB Standard		
USB Host	(1) USB-C: USB 3.2 Gen 1, (1) USB-B: USB 3.2 Gen1	
LIOD Davis	(2) USB-A: USB 3.2 Gen 1, (1) USB-C: USB 3.2 Gen 1, (1)	
USB Devices	USB 2.0	
USB Device Power	5V@4A (20W) Shared	
Control		
Control ports	(1) RS232, (1) TCP/IP	
RS232	(1) 3 pin Phoenix connector TX-RX-GND BAUD 2400- 115200	
TCP/IP	(1) RJ45 port, 10/100/1000Base-T auto negotiation.	
Network		
LAN	(1) RJ45 port, 10/100/1000Base-T auto negotiation.	
WiFi Standards	IEEE 802.11a/b/g/n/ac	
WiFi Frequency Bands	2.4 GHz / 5 GHz	
WiFI Antennas	(3) Antennas, MIMO 2×2 and MIMO 1×1	
WiFi Encryption	AES, WPA, WPA2, PSK	
Security	IEEE 802.1x, HTTPS, TLS, PEAP/TTLS	
General		
Operation Temperature	0~40°C	
Storage Temperature	-20°C~ 60°C	
Relative Humidity	0~85% relative humidity, non-condensing	
External Power Supply	24V/6A	
Max Power Consumption	130W (Fully loaded)	
Power Consumption Standby	5.95W	
USB-C Power Charging	100W PD3.0	
Dimension (W*H*D)	215x152x25 mm	
Net Weight	1000g (not including the 700g power adapter)	
Shipping Dimension	345x265x77mm	



Shipping Weight	2200g
Safety Compliance	FCC, CE-RED
Environmental Compliance	RoHS, REACH, WEEE

3. Panel Description

3.1 Front Panel



- USB-C IN: Connect a USB-C source device supporting DP Alt mode for video,
 1G Ethernet, USB 3.2 Gen 1 data, and up to 100W charging.
- 2. HDMI IN: Connect an HDMI source device for video input.
- 3. USB HOST: USB 3.2 Gen 1 Type-B port for USB data from the HDMI source.
- 4. USB-A: USB 2.0 port for HDMI dongle (SI-HC) pairing.
- 5. USB-C: USB 2.0 port for USB-C dongle (SI-DC) pairing.
- SELECT AUTO/3S: Source selection button, see section <u>6. Front Panel</u>
 Control for more information.
- 7. Source LEDs: Indicates current source selection by illuminating green.
- 8. Power LED: Indicates standby mode, illuminates red when in standby mode.



3.2 Rear Panel



- 1. ANT: (3) Antennas
- 2. RS232: 3-pin terminal block for RS-232 control (RX-TX-GND).
- 3. AUDIO OUT: 5-pin terminal block for balanced line audio output.
- 4. NETWORK: RJ45 port for 10/100/1000Base-T network connection.
- 5. RESET: Factory reset button, press at least 2s to reset unit.
- 6. USB-C: (1) USB 3.2 Gen 1 Type-C port for connecting USB-C devices.
- 7. USB-A: (2) USB 3.2 Gen 1 Type-A ports for USB devices.
- 8. HDMI OUT: HDMI 2.0 output
- 9. USB-A: USB 2.0 port for touch screen connection.
- 10. Power: DC connector for 24V power supply.



4. System Connection

4.1 Usage Precaution

- Ensure that all components and accessories are included prior to installation.
- The installation should take place in a clean environment with appropriate temperature and humidity levels.
- Verify that all power switches, plugs, sockets, and power cords are properly insulated and safe to use.
- Connect all devices before turning on the power

4.2 Installation

- The SI-S311 can be installed on the wall or flat surface. At the bottom of SI-S311, there are two mounting holes that can be fixed to a surface using flat screws (not included).
- To ensure optimal performance, position the SI-S311 in close proximity to the display and refrain from placing any obstacles between the SI-S311 and the SiMA Dongle.
- The antennas should be positioned vertically, at a right angle to the ceiling and parallel to the walls.
- The antennas must be installed at a sufficient distance (at least 50cm/1.6ft) from metallic surfaces to prevent unwanted reflections, and at least 1m/3.3ft away from other radio devices operating within the same frequency range, such as other WiFi access points, cordless phones, microwave ovens, etc. Additionally, it is advisable to keep antennas at least 15 cm (6 inches) away from concrete walls
- The ideal scenario is to maintain a direct line of sight between the antennas
 and the dongles or other wireless sources. Any obstruction will lead to a longer
 signal propagation path, potentially resulting in reduced performance.
- Given the radio pattern of the dipole antennas, they should not be positioned directly above where SI-S311 users are likely to be. Therefore, the recommended placement for the antennas is at the side of the meeting room.

4.3 Power Connection

Plug the power connector to the power adapter to the power input connector
of the Base Unit SI-S311.



Connect the power cable plug into the wall outlet.

4.4 HDMI Output Connection

- 1. Connect the HDMI Output of SI-S311 to a 4K or Full-HD display using a HDMI Premium High Speed certified cable.
- 2. After starting up, the system displays the home page, as shown below.



4.5 Analog Audio connection

- Connect an audio cable to the Phoenix Terminal connector of the audio input of the SI-S311.
- 2. Connect the other side to the meeting room's sound system.

4.6 LAN Connection

- Insert a network cable equipped with an RJ-45 connector into the LAN port of the SI-S311.
- By default, DHCP IP Mode is enabled on the SI-S31. If there's a DHCP server
 in the network, IP address will be assigned automatically. If there is no DHCP
 server in the network, SI-S311 will use APIPA addresses in range 169.254.0.1
 to 169.254.255.254. To configure a static IP address, see chapter <u>7.1.2</u>
 Ethernet Configuration



4.7 USB Control Devices Connection

If the user connects a USB Mouse or Touchscreen, the following features will be available:

- Moderator tab to manage the active users sharing content with the SI-S311.
- White board or annotation during a presentation.
- USB-HID function for laptop control and click function of a touchscreen:

USB mouse:

- Single click to select.
- Right-click to back to the Home Page.

Touch screen:

- Click to select.
- Long press to open the contextual menu, as double-click or click the right button of a USB mouse.

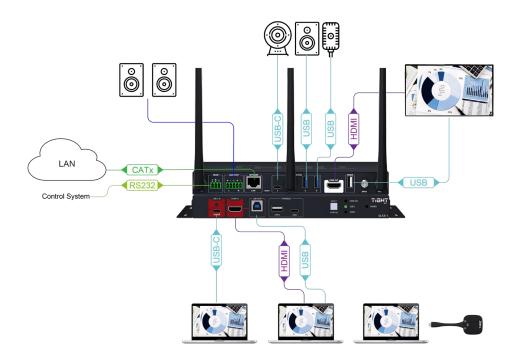
4.8 USB Conferencing Devices Connection

The SI-S311 supports USB peripherals that are connected to the unit's device ports, which include USB cameras and USB microphones or speakerphones. These will be available for users through USB-C and USB-B Host ports. This functionality allows users to start and engage in online meetings using conferencing applications like Skype, Zoom, Microsoft Teams, and others. The unit is equipped with one USB Type-C port and two USB Type-A ports for USB peripherals, providing a total of 5V@4A (20W) shared by the three ports.

4.9 System Diagram Example

The following diagram illustrates an example of connections that can be utilized using the SI-S311.





5. User Operation

5.1 Welcome Screen

When connected to a HDMI display and powered up, the SI-S311 will output the following welcome screen. The welcome screen can be customized in WEB UI settings, see section <u>7.3.5 Customize Welcome Screen</u>.





No	Item	Details	
1	WiFi operation mode	Wireless Direct Mode: Internal access point available. Wireless Infrastructure Mode: The router connected to Wi-Fi has been established, which is more secure. LAN Infrastructure Mode: Access point is turned off.	
2	Device	The name of the SI-S311 is the SSID.	
3	PASS	Passcode of the base unit.	
4	Passcode timer	Automatically counts down to the passcode change.	
5	Refresh Passcode	Manually generate new password.	



6	Time	Displays current time.	
7	Sidebar	Preview for all connected devices, whiteboard, annotation.	
		WiFi IP: IP address of SI-S311 on WiFi network.	
8	WiFi IP	LAN IP: IP address of SI-S311 on LAN.	
0	LAN IP	"N/A" means the base unit is not connected to any WiFi / LAN	
		networks.	
		Clicking on the icon a pop-up window will appear, displaying	
9	Security level	the security profile currently selected amongst the three levels	
		available.	
		Clicking on this icon will create a USB launcher drive	
10	Download button	containing application and user manual.	
	Info	Clicking on this icon will show / hide information on the	
11		welcome screen.	

5.2 Input sources

The SI-S311 functions in two distinct modes: wired connections and wireless connections. In wired mode, utilizing USB-C or HDMI in conjunction with USB host, users are able to access USB peripherals connected to the device's ports. This feature is particularly beneficial for applications in meeting rooms and for online meetings.

In wireless mode, the SI-S311 accommodates presentations from a variety of sources, including SiMA Dongles (SI-DC and SI-HC), the SiMA APP, Miracast, AirPlay, or Chromecast.

The unit supports both auto-switching and manual switching of inputs.



5.2.1 USB-C Source Input

Connect a USB-C cable to your USB-C alt mode or Thunderbolt compatible computer. The SI-S311 is capable of supporting up to 4K60 4:4:4 video through USB-C alt mode with DisplayPort 1.4, while simultaneously providing a 5Gbps USB 3.2 Gen 1 data connection and a 1Gbps Ethernet connection if a network is linked to the unit's LAN port. Additionally, the USB-C port can deliver charging power of up to 100W using the PD3.0 protocol.

5.2.2 HDMI combined with USB host

For older sources that lack USB-C video support, one can utilize an HDMI port along with a USB host port. This combination will provide the same functionality as USB-C, except it will not deliver charging power.

5.2.3 Wireless presentation mode

The SI-S311 device enables wireless screen sharing. It is capable of mirroring two sources onto the main display at the same time, accommodating both PC/Laptop and mobile devices. It supports the use of SiMA Wireless Dongles (SI-DC and SI-HC), the SiMA APP for Windows and MAC, as well as native casting protocols such as AirPlay, Miracast, and Chromecast.

5.2.3.1. SiMA Dongles, SI-DC and SI-HC

Wireless presentation

- 1. Pair SI-DH or SI-DC to SI-S311 by connecting the dongle to either of the front panel USB 2.0 ports.
- 2. Plug SI-DH to the USB-A port and HDMI port or SI-DC to USB-C port of the device that is going to share its content.
- 3. LED indicator will show static red when ready. Touching the surface will start wireless presentation and LED indicator will show static green.
- Touching the surface again will stop wireless presentation and LED indicator will go back to static red.





5. When LED is static green, the content is sharing to the main screen connected to the SI-S311.



 Clicking on the left button freezes the video until user clicks again. The right button functionality can be customized in WEB UI settings see section <u>7.3.13</u> <u>SiMA Dongle Settings</u>.

5.2.3.2. SiMA APP for Windows and MAC PC

The SiMA application serves as the launcher that enables users to wirelessly share content to the SI-S311 from any source device that hosts it, such as a MAC or Windows PC. By simply transferring the launcher to the internal storage or choose to install, users can operate the SiMA application.

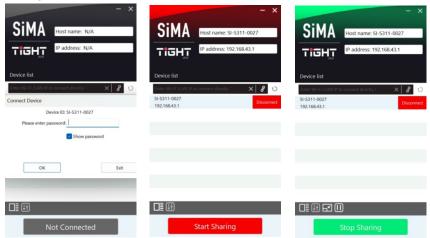
The application can be accessed via the local website hosted by the SI-S311 unit, provided that the device (either a laptop or an Android device) is connected to the same network as the SI-S311. In your browser, enter the unit's IP address, and then select your application to download.

1. Open the SiMA app on the source device. The available SI-S311 units on the



network will show up.

- 2. Select the unit to connect to.
- Enter passcode shown at the welcome screen on the main display and press "OK".



- 4. App is now ready to share, start sharing by pressing "Start Sharing".
- 5. Settings:





1. Device list: [F

Shows all available SiMA units.

2. Options:

Extended Screen:

Sharing the active source's desktop has been extended.

The primary display (1) appears on the laptop, while the virtually extended display (2) is shown on the main screen. If the PC is already connected to an extended display (3), the extended display (2) will consistently be shown on the main screen.

For first-time use of the "Extended Screen" function, click on "Extended Screen"; a message will appear indicating the installation of the "ExtendedDisplay" driver. Click "yes" to proceed, and once installed, the Extended Screen function will be ready for use.

When the Extended Screen feature is selected, Windows automatically transitions to "Extended Mode". If you pause the sharing using "SiMA app" (Pause), Windows will remain in "Extended Mode" until you press "Windows key + P" on the laptop to choose the "PC screen only" mode.

In MacOS, the Extended desktop ("Use a Separate Display") is only available via AirPlay when activated for display on the SiMA app.

• Keep Aspect Ratio:

This parameter will maintain the original aspect ratio of the main screen.

Stream Mode:

This parameter is designed to adjust performance according to the intended application:

- Fluency Priority(default): This mode minimizes image transmission delay, leading to lower image resolution, making it ideal for PowerPoint presentations or other similar presentation content.
- Quality Priority: This mode offers higher image resolution and quality, but with more complex content, the transmission delay increases, making it better suited for video playback.

Lowest Latency (Mouse):

This parameter greatly enhances the mouse responsiveness, with an



approximate latency of less than 20ms. This configuration is done separately on each SiMA app host device.

Volume Slider:

This parameter will adjust the playback volume of the main screen while presentation is active. Not available for macOS.

3. Full Screen:



By clicking the full screen icon on the SiMA app user interface, or by performing a long press on the wireless SiMA Dongle, the content will be displayed as full screen if split screen mode is active. Clicking icon again will return to split view again.

4. Freeze Screen:



By clicking the screen freeze icon on the interface or pressing the SiMA Dongle left button, the content will be frozen. Continue active content by clicking the icon again.

5.2.4 Screen sharing via Airplay

On iOS and macOS devices a user can stream his screen or sound wirelessly to SI-S311 base unit via Airplay protocol.

- Connect the iOS or macOS device to the same WiFi network that SI-S311 is connected to.
- Click the Airplay icon on your iOS or macOS device and select the correct SI-S311 unit to start sharing content.

5.2.5 Screen sharing via Miracast

1. Android Devices

- 1. Open Quick Settings: Swipe down from the top of your Android screen to access the Quick Settings panel.
- 2. Find Screen Mirroring Option: Look for an icon labelled "Screen cast," "Smart View," "Wireless Display," or similar (the name varies by manufacturer, like Samsung's Smart View or LG's Screen Share).
- Select Device: Tap the option, then choose your presentation device from the list of detected Miracast devices.



Invitation to connect		
From: SI-S311-0027		
Type the required PIN:		
00005155		
	DECLINE	ACCEPT

- Confirm if Needed: If prompted, enter the 8-digit PIN shown on the main screen to confirm the connection.
- Start Mirroring: Your screen should now mirror on the presentation device.

2. Windows PC

- 1. Open the Connect Menu: Press Windows key + K to open the Connect menu, which lists available wireless displays.
- 2. Select device: Choose your SiMA device from the list. If prompted, enter the 8-digit PIN displayed on the main screen.
- 3. Start Mirroring: Your Windows screen should now appear on the main screen, ready for presentations or media sharing.
- 4. Change projection mode: Press Windows key + P to select a projection mode:
 - Duplicate: Mirrors your screen.
 - Extend: Uses the presentation device as a second screen.
 - Second Screen Only: Displays only on the presentation device.

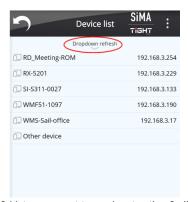
5.2.6 Screen sharing via SIMA-Android app (Android only)

 Download and install the SiMA-Android application from Google Play or the APK file from the local web server on the SiMA unit by entering the IP address of the unit in a web browser

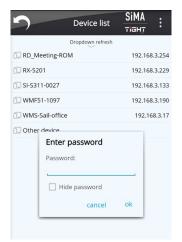




- 2. Connect your Android device to the same network as the SiMA unit.
- Open the SiMA-Andriod application on the Android device and then drag down to refresh the device list.



4. Select the SI-S311 to connect to and enter the 8-digit PIN shown on the main screen to connect to unit.



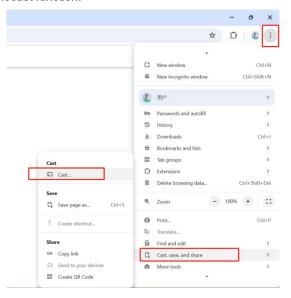
5. Click on "Sharing" to start mirroring.

5.2.7 Screen sharing via Chromecast

Connect PC to same network as the SiMA unit.

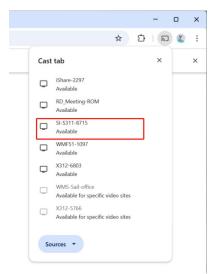


- 2. Open the Chrome web browser.
- 3. Click on the 3 dots to open setting menu then select "cast" to connect Chromecast function.





4. Select the correct SiMA unit to share to.



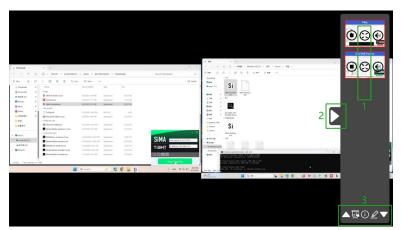
5.3 Sidebar Moderator control

In wireless mode the SI-S311 features a moderator sidebar with preview that allows the user to select which wireless device is shown on the main screen, enable or disable wireless casting on any device, and/or adjust volume playback.

To display, conceal, or manage the moderator tab, a USB HID compatible device must be connected to the SI-S311 base unit (such as a touchscreen or mouse...).



Preview windows for all connected SiMA Dongle, SiMA app users, and devices utilizing Airplay / Miracast / Chromecast for screen sharing will be visible on the sidebar.



- 1. Moderator Preview Controls
 - Click to start mirroring the selected source.



• Click to stop mirroring the current source.



• Click to make this source full screen on main screen.



· Click to adjust the volume of connected source.



- 2. Arrow to hide or show sidebar. The location can be changed by dragging the arrow up or down.
- 3. Whiteboard controls see explanation below.



5.4 Whiteboard and Annotation

Whiteboard and Annotation require a USB HID compatible device, such as interactive white board, touch screen or mouse. There are two different modes:

5.4.1 Whiteboard

A whiteboard is presented that enables the user to jot down notes and create drawings. It supports various shapes, colors, and backgrounds. To initiate the Whiteboard, click on the icon displayed on the welcome screen.



ID	Icons	Function	
	Co	Add an empty page.	
Toolbar 1		Delete current page.	
	1/1	Display previous or next page.	
Toolbar 2	?	Undo: One step backward in changes.	

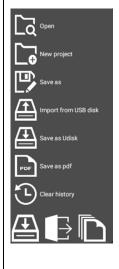


	C	Redo: One step forward in changes.
		Erase part of drawings or annotation, change diameter by a longer tap.
	(-)	Clear the entire drawing/writing on the screen.
	%	Pen allows writing/drawing in different colors.
		Draw basic geometric shapes.
	.	Select color of board, the drawing will be kept.
Toolbar 3		Will pop up, when "Pen" or Draw shape or select color of board is selected, for individual change of size of Pen, Shape or color.
Toolbar 4		Save the current screenshot on local storage (PNG+WMN).
		Close Whiteboard to go back to welcome screen, actual project can be saved on local storage (WMN).



File options





Open:

Reopen WMN file from local storage and continue/edit from an older project.

New project:

Create a new project.

· Save as:

WMN file on local storage in unit, it will be erased after POWER-OFF.

• Import from USB disk:

File from external storage to reopen the project (WMN).

· Save as Udisk:

Save the file on an external storage device.

· Save as pdf:

All pages are saved as PDF on local storage.

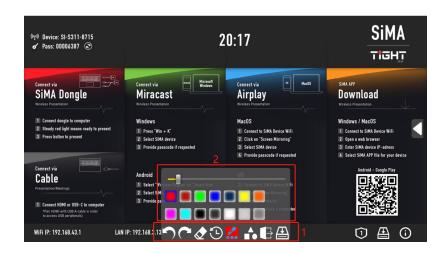
Clear history:

Delete all whiteboard & annotation files on local storage.

5.4.2 Annotation

Enables the user to create drawings or write annotations as an overlay on the content displayed of the currently active sharing devices. It supports various shapes, colors, and backgrounds. To initiate Annotation mode, click icon on the welcome screen.





ID	Icons	Function
Toolbar 1	?	Undo: One step backward in changes.
	7	Redo: One step forward in changes.
		Erase part of drawings or annotation, change
		diameter by a longer tap.
	<u>(</u>	Clear the entire drawing/writing on the screen.
	%	Pen allows writing/drawing in different colors.
		Draw basic geometric shapes.
	7	Select color of background, the drawing will be kept.



		Close Whiteboard to go back to welcome screen, actual project can be saved on local storage (WMN).
	lacktriangle	Save the current screenshot on local storage (PNG+WMN).
Toolbar 2		Will pop up, when "Pen" or Draw shape or select color of board is selected, for individual change of size of Pen, Shape or color.

5.4.3 Download drawings or annotations to connected sources.

When a screen of Whiteboard or Annotation is saved to the internal storage of the SI-S311, the user can download the saved files by either scanning the QR code or entering the provided IP address in a web browser.





6. Front Panel Control

The SI-S311 features a single Switching Button on the front panel for basic control:

- Source Selection: Press the button to cycle through available sources: wireless, USB-C, HDMI.
- Auto Switching Mode: Long press (3 seconds) to activate auto-switching mode, where the device automatically selects the active source.
- IP Mode Switching: Long press (10 seconds) to toggle between static and DHCP IP modes; the power LED will blink twice to confirm.

7. Web-UI Operation

The SI-S311 can be configured and managed via its Web-UI, accessible by entering the device's IP address in a web browser. The SI- is by default set to DHCP IP addressing. See section 5.2 IP Mode if static IP address is needed. In static IP mode the unit will have below default IP settings:

IP Address: 192.168.0.178 Subnet Mask: 255.255.255.0

Wireless Direct Mode is enabled by default. In this network mode, SI-S311 generates its own wireless SSID with IP address 192.168.43.1. For further information on how to properly configure the network settings according to the needs of the application. See section 7.1 Network Settings for more information.

First landing page will show all available downloads, and in the upper right corner is access to WEB UI for configuration and control. Login is required





Default Password: admin (It is strongly advised to change this password for enhanced security.).



7.1 Network Settings

To fully utilize the features of the SI-S311, it is essential to configure and integrate the base unit's network settings in accordance with the application's requirements. The SI-S311 is equipped with both an independent wired LAN and a WiFi network card. The Network Settings page provides access to the following sections. Here, you can configure the network mode and parameters for the SI-S311.

7.1.1 Network Mode

This section allows the user to set the network operating mode of SI-S311



- Device Name: This parameter displays the current name assigned to the SI-S311.
- 2. **Current Network Mode**: This parameter displays the current network operating mode configured.
- 3. WiFi Mac: This parameter displays the MAC address of the SI-S311 WiFi

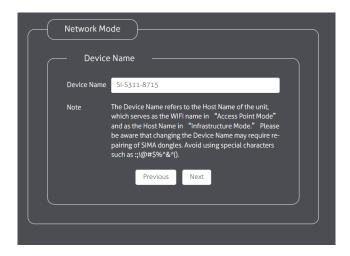


network interface.

4. **Start Wizard:** To initiate the network setup wizard, click here to modify the network operating mode, ensuring the proper integration of the SI-S311 into the existing wired or wireless network infrastructure.

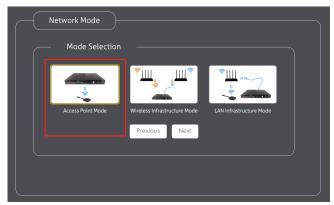
7.1.1.1. Network Modes Configuration

1. **Device Name:** Enter a device name for the SI-S311. Allowed characters are: "a-z", "A-Z", "0-9", "-", "_" and "space ", then Click "Next".





2. Mode Selection: Select the desired network operation mode and click "Next".



Access Point Mode

The SI-S311 unit initializes in the default standalone "Access Point Mode" setting following a factory reset or upon its initial use. The base unit establishes its own wireless access point, which all devices must connect to in order to share content with the base unit. This configuration is ideal for temporary use, small installations, and environments lacking network access or those where network access for guests is restricted due to stringent security measures, completely isolating them from the corporate network.

In this mode, the SI-S311 can operate without any additional wireless network setup. Simply pair the SI-DH / SI-DC with the SI-S311 base unit, connect to the internal hotspot of the SI-S311, and launch the SiMA app or utilize wireless casting protocols such as Airplay, Miracast, or Chromecast.



1. Click "Next" to Set up WiFi access point.



- There are two options for network usage the SI-S311 in "Access Point Mode":
 - Allow network bridging to LAN: The source device can connect to Internet if LAN port is available.
 - b) Disable network bridgning: The source device cannot connect to the Internet if this mode is activated.
- SSID discovery and connection: Select "ON" to make SI-S311 SSID visible and "OFF" to hide it.
- Frequency band: Click to select 2.4 GHz or 5 GHz WiFi frequency. Default is 5 GHz.
- **Channel**: Click to select the WiFi channel. Default band is 5 GHz and using channel 36.
 - o 2.4 GHz frequency band: channels 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11,
 - 5 GHz frequency band: No need to choose 5G channel, system will choose proper channel automatically. Four channels will be activated simultaneously, and the system will automatically



select the suitable channel from these options.

- Default channel (USA area): 36, 40, 44, 48 or 149, 153, 157, 161.
- Default channel (European area): 36,40,44,48.
- Default channel (China area): 149,153,157,161.
- **Password**: Please click in the field to enter a suitable password consisting of 8 characters.
- 2. Click "Submit" to finish and then click "OK". Finally pair any wireless SiMA Dongles with the SI-S311 again.

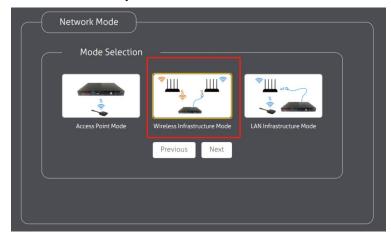


Wireless Infrastructure Mode

The SI-S311 device is capable of connecting to both a wired and a wireless network simultaneously. Its segmented dual network feature allows for two distinct routes to the SI-S311 concurrently. This functionality is particularly beneficial for organizations that maintain a wireless 'Guest' network for external visitors alongside a wired 'Staff' network for their employees. It is important to note that guest users are restricted from accessing any resources on the company's internal network. Both Guest and Staff users have access to the internet



In this operational mode, users can utilize SI-DH / SI-DC / SiMA app Cast / Native Wireless protocols such as Airplay, Miracast, and Chromecast. The SI-DH / SI-DC devices will connect to the WiFi access point of the 'Guest' network, which is subsequently linked to the internal WiFi access point of the SI-S311. (These devices can also be configured to connect to the enterprise's access point.) Users of mobile devices will remain connected to their existing network, thereby retaining access to their usual corporate environment as well as internet connectivity.



Click "Next" to enter the configuration of this the network mode.

1. SiMA Dongle Connects to SI-S311 unit via wireless network.Choose a wireless network which is separate from the company LAN network for guest users.





- Select Wi-Fi(SSID) to connect SiMA unit: Choose a wireless network to connect to SI-S311. When "5GHz ONLY" was clicked, it will just show frequency band 5GHz wifi ssid.
- Password: Enter a password to connect the SI-S311.
- Click "Submit" to finish and then click "OK". Finally pair any wireless SiMA Dongles with the SI-S311 again.





2. SiMA Dongle connects to base device via LAN.

Choose a wireless network which is separate from the company LAN network for guest users.



- Select Wi-Fi (SSID) to connect the SiMA unit: Select a wireless network
 to establish a connection with the SI-S311. When the "5GHz ONLY" option
 is selected, only the 5GHz Wi-Fi SSID will be displayed.
- **Password**: Enter the password to connect the SI-S311.
- Select Wi-Fi(SSID) to connect SiMA Dongle: Choose a wireless network to connect to dongle.
- Password: Enter the password to connect the dongle.



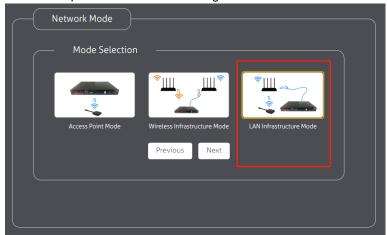
 Click "Submit" to finish and then click "OK". Finally pair any wireless SiMA Dongles with the SI-S311 again.



LAN Infrastructure Mode

The SI-DH / SI-DC and mobile devices can connect to the secured wireless access point of the corporate network. The SI-S311 base unit will be linked through a network cable to the wired section of the corporate network.

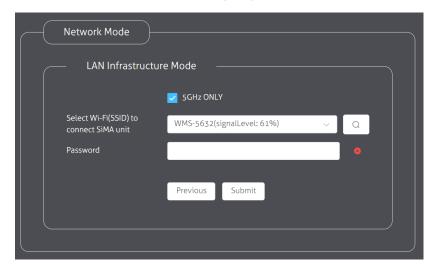
Staff users will have the ability to connect to their regular access point of the Company network without needing to alter the WiFi, provided that both networks operate within the same range.





SI-DH / SI-DC will be automatically paired to the Staff access point, and not to SI-S311 base unit.

1. Click "Next" to choose a LAN network which is used for the company staff users and pair the wireless SiMA Dongle again into this network.



- Select the Wi-Fi (SSID) to connect the SiMA unit: Select a wireless network to establish a connection with the SI-S311. When the "5GHz ONLY" option is selected, it will exclusively display the SSID for the 5GHz frequency band.
- Password: Enter a password to connect the network.
- Click "Submit" to finish and then click "OK". Finally pair any wireless SiMA Dongles with the SI-S311 again.

7.1.2 Ethernet Configuration

This section will let the user configure the wired LAN settings.





- DHCP: This setting allows the user to activate the automatic assignment of an IP address if a DHCP server is available on the network. To set a static IP address, this option must first be disabled.
- IP Address: The IP address that will be displayed here once it has been acquired.
- Subnet Mask: This setting enables the user to specify the preferred network mask.
- Gateway: This setting allows the user to enter the desired IP gateway.
- **DNS1-2**: This setting permits the user to input the preferred DNS servers.
- MAC: The MAC address of the LAN module will be displayed here.

7.2 Video and Audio

Users will have the capability to adjust video and audio settings in this section, including video output resolution, HDMI output sync, switching mode, audio volume and output selection, as well as Airplay and Miracast.

7.2.1 Video Output

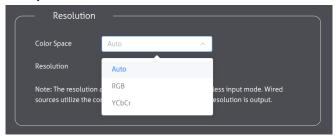
The video output settings allow for configuration of the output resolution, color space, and CEC.





7.2.1.1. Resolution

Color Space:



- o Auto (default): Adapts the output color space according to the display.
- RGB: Force RGB color space conversion.
- o YCbCR: Force YCbCr color space conversion.

Resolution:

Establishes the output resolution exclusively for Wireless Mode. Wired sources depend solely on the input EDID configuration.



- Auto (Adapts according to display EDID)
- o 3840x2160@60Hz
- o 3840x2160@50Hz
- o 3840x2160@30Hz
- o 1920x1080@60Hz
- o 1920x1080@50Hz
- o 1920x1080@30Hz
- o 1280x720@60Hz
- o 1280x720@50Hz

7.2.1.2. CEC

The SI-S311 supports CEC (Consumer Electronics Control), provided that the connected display also supports CEC and that it is enabled.



Control SiMA unit by Display

With this feature, you have the option to determine if the connected SI-S311 base unit should automatically switch to standby mode when the display is turned off.

- ON: When the display is turned off, the SI-S311 base unit will also automatically power down.
- OFF (Default): The display will turn off, but the SI-S311 will remain powered on.

Control Display By SiMA unit

With this feature, you have the option to determine if the display should automatically enter standby mode when the connected unit base SI-S311 is



powered down.

- ON: When the SI-S311 is powered off, the connected display will also automatically shut down.
- OFF (Default): The display will remain on and will not automatically turn off when the SI-S311 is powered down.

7.2.2 HDMI Output Sync

This feature controls how the SI-S311 handles the Hot Plug Detection (HPD), 5V, on the HDMI output when there is no active source connected. As many downstream units may auto switch sole on HPD (5V) detection or to enter standby mode. Disabling the HDMI Output Sync facilitates auto-switching and standby mode of the downstream device.



- ON: HPD (5V) is always sent out at the output, even when no source is connected at the selected input.
- OFF (Default): In the absence of an active source at the selected input, HPD
 is not sent out. This allows downstream devices to automatically switch and/or
 enter standby mode.

7.2.3 Video Mute

Enabling mutes the video output by sending black image, keeping the video sync.

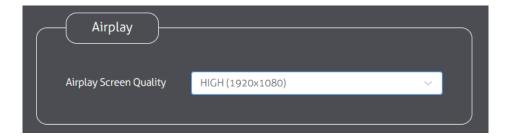


7.2.4 AirPlay

On iOS and macOS devices, users have the ability to wirelessly stream their screen or audio to the SI-S311 base unit using the AirPlay protocol. Click to choose the image



quality for the Apple device that is transmitting via AirPlay.



- HIGH (1920x1080)
- MEDIUM (1600x900)
- LOW (1280x720)

7.2.5 Miracast

The SI-S311 supports Miracast protocol for screen sharing from android devices and Windows PCs with resolutions up to 1080P.



It supports two types of Miracast protocols; each designed for different network environments:

1. Enable MS-MICE: OFF (P2P Mode only)

- Uses the peer-to-peer (P2P) protocol via Wi-Fi Direct, allowing direct connections without requiring the source device and S311 to be on the same network. This mode is perfect for flexible setups, such as guest presentations or environments without a shared Wi-Fi network.
- Connection steps:
 - 1. Ensure your device (e.g., Windows PC or Android smartphone)



supports Miracast.

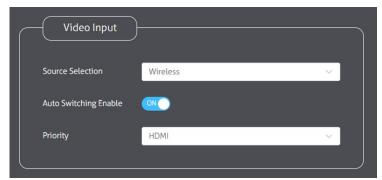
- 2. On a Windows PC, press Windows + K to open the "Connect" panel.
- 3. Select the S311 from the list of available Miracast devices.
- 4. Click to connect and begin screen mirroring.
- 5. For mobile devices, use settings like "Screen Mirroring" or "Cast" to locate and connect to the S311.

2. Enable MS-MICE: ON (LAN Mode)

- Known as Miracast over Infrastructure (MS-MICE), this mode requires both the source device and S311 to be on the same Local Area Network (LAN). While device discovery still uses P2P (WiFi Direct) and units must be in range, the video and audio streams are transmitted over the LAN, potentially offering improved stability in enterprise settings. Source devices that don't support MS-MICE will still use P2P protocol.
- Connection Steps:
 - Connect both the source device and SI-S311 to the same LAN (via Wi-Fi or Ethernet, if supported).
 - 2. On a Windows PC, press Windows + K, select SI-S311, and connect.

7.2.6 Video Input

Supports switching selection of video signal input sources, mainly including USB-C, HDMI and Wireless



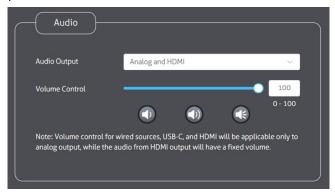
 Source Selection: Manually switching between sources, including USB-C, HDMI and Wireless.



- Auto Switching Enable:
 - ON (default): Automatically switch input selection according to set priority and last connection.
 - OFF: Manual switching is enabled.
- Priority: Setting priorities for automatic switching, which includes USB-C, HDMI, and wireless options. A lower priority source cannot activate auto switching from a higher currently active source
 - HDMI: HDMI is set to have highest priority. Priority order: HDMI > USB-C > Wireless.
 - USB-C: USB-C is set to have highest priority. Priority order: USB-C > HDMI > Wireless.
 - Wireless: Wireless is set to have highest priority. Priority order: Wireless > USB-C >HDMI.
- Source Disconnected: When an input source is removed, the SI-S311 will
 change the input source based on the priority order. If the corresponding
 source is active, it will be switched to that input source; otherwise, the SI-S311
 will automatically switch to the Wireless input source.
- Reboot: If the SI-S311 reboots, it will automatically reconnect the input, giving
 priority to the source with the highest priority.

7.2.7 Audio

Allows the user to select the source from which the audio is output on HDMI and/or Analog output.





- Audio Output:
 - Analog: Output only analog audio.
 - HDMI: Output only embedded HDMI audio.
 - Analog ad HDMI (default): Output both HDMI and analog audio simultaneous.
- Volume Control

The volume can be adjusted between 0 and 100, the default is 100, and there are 3 buttons to adjust, volume down , volume up and volume mute/unmute.

 Volume control for wired sources, USB-C, and HDMI will be applicable only to analog output, while the audio from HDMI output will have a fixed volume.

7.3 Device Settings

In this section, configurations related to the device can be performed, including Date & Time, Standby, Language, Reboot Schedule, USB, and more



7.3.1 USB Settings

Configure the USB Host switching behavior. SI-S311 supports switching of connected USB peripherals to input source host USB.

- **Follow Source**: Automatically switches the USB host between HDMI, USB-C and Wireless input depending on the currently active video source.
- Manual: Manually select the USB Host input source. USB Host will not switch automatically when changing active input video source.

7.3.2 USB Ethernet Pass-through

SI-S311 supports 1G Ethernet to be passed from LAN port to selected USB Host. This



capability enables the connected device to utilize the LAN network through USB, achieving the full 1G speed. This feature is particularly beneficial for online meetings, ensuring a fast network connection without relying on WiFi. Enabled by default.



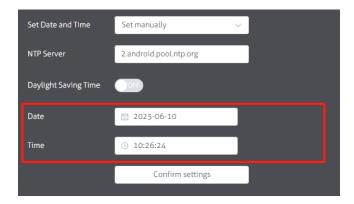
7.3.3 Date and Time

Device system date and time configuration.



- Use 24-hours time format: If checked, the time will be displayed in 24-hour time format. If not checked, the time will be displayed in 12-hour format.
- Set Date and Time: Unit can be set to use NTP server or to be set manually.
 - Set using NTP server: Using an NTP time server to provide time as system time.
 - Set manually: Set system date and time manually.





- NTP Server: Set up an appropriate NTP server (Network Time Protocol) for the unit to synchronize with.
- **Daylight Saving Time:** The function is OFF on default. When it is ON, the time will be the adjusting time for daylight saving.
- Time zone: Click the "Time Zone" drop down and select the appropriate time zone.

7.3.4 Auto Standby

When the Auto Standby mode is enabled, the SI-S311 will automatically enter power-saving mode after a user configurable time following the disconnection of the last source, wireless SiMA Dongle, the disconnection of the WiFi from a mobile device, or a lack of activity within the system. The duration can be set from Never to a maximum of 30 minutes. During Standby, the red "POWER" LED located on the front panel of the SI-S311 will be active, and the HDMI output will be turned off.

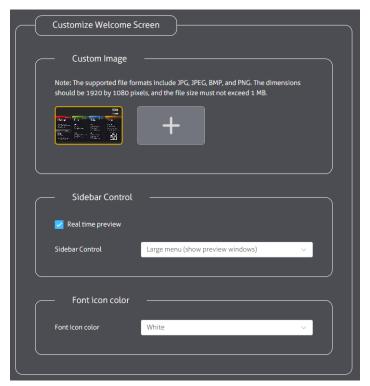


- When a SI-DH / SI-DC is plugged in and connected, or a mobile device is connected, Standby is deactivated.
- Movement of mouse at USB-input of SI-S311 base unit deactivates standby mode.



7.3.5 Customize Welcome Screen

Configure custom background image, sidebar control and font/icon color on the welcome screen.



7.3.5.1. Custom Image

Upon activating the SI-S311, the welcome screen with user instruction will appear. The user has the option to modify the background image of the welcome screen. Choose an image (jpg, jpeg, bmp or png with a resolution of 1920x1080 and less than 1MB.) from an appropriate directory.

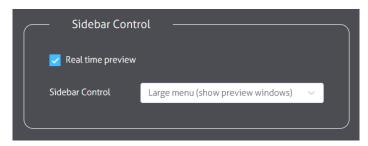
7.3.5.2. Sidebar Control

In wireless mode the SI-S311 sidebar features a moderator preview window that enables the user to select which active wireless devices is shown on the main screen,



toggle wireless casting on any device, or adjust volume playback. Real Time Preview windows is available for all connected SiMA Dongle, SiMA app users. Airplay / Miracast / Chromecast users will be shown without real time preview.

Different window prefixed layouts can be chosen in the Moderator section of the WEB settings.



 Real Time Preview: When it is checked, it can show the preview content of the wireless source.

Sidebar Control:

- Large menu (show preview windows): The sidebar will be shown as a large menu, and the preview window will also be visible on the welcome screen.
- Small menu (no preview windows): The side bar will be shown as small menu without preview windows.
- Hide side bar completely (including arrow): When choosing this
 option, the side bar won't be shown on the welcome screen at all. No
 moderator control from the welcome screen is possible.

7.3.5.3. Font icon color

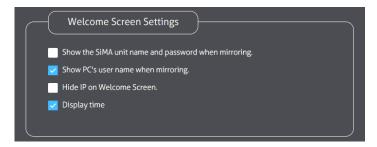
Users can select to use black or white color theme for the icons and font on the welcome screen. This is useful when applying a custom background image.





7.3.6 Welcome Screen Settings

Configure what information should be shown on the welcome screen.



- Show the SiMA unit name and password when mirroring: If Checked SiMA unit
 Device and Password will be shown on top of the mirrored content visible all the
 time.
- Show PC's user name when mirroring: Check to show PC username will be when casting the screen.
- Hide IP on Welcome Screen: Check to hide SiMA device WiFi IP and LAN IP.
- Display Time: Check to show device system time.

7.3.7 Passcode Settings

Dynamically change passcode of the wireless presentation. The password stays the same for all meeting participants as long as at least one wireless SiMA Dongle or mobile device is connected to the SI-S311 base unit. Once the user disconnects, a



configurable timeout will commence.



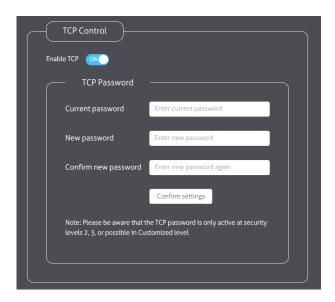
- Never: Never change passcode. (Passcode stays the same even after a power off event)
- 5 minutes: Change passcode every 5 minutes.
- 30 minutes: Change passcode every 30 minutes.
- 1 hour: Change passcode every 1 hour.
- 2 hours: Change passcode every 2 hours.
- 4 hours: Change passcode every 4 hours.
- 24 hours: Change passcode every 24 hours.

7.3.8 TCP Control

SI-S311 supports third party control via an open API, see section <u>9. Device Control</u>. The unit can be controlled via TCP protocol on port 4001. TCP control is enabled by default.

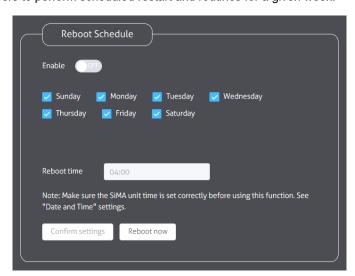
TCP Password: For extra security an TCP password can be enabled. Please
be aware that the set password is only active in security level 2,3 and possible
in Customized, see section <u>7.6.3 Security Level</u>. Default password is "admin".
The TCP API command now needs to add the password before all commands,
<password>,<command><CR>.





7.3.9 Reboot Schedule

Allow users to perform scheduled restart and routines for a given week.





- Enable: The scheduled reboot for the SI-S311 can be configured, and the specific days for rebooting can be chosen from Monday through Sunday.
- Reboot time: Specify the time of day at which the scheduled reboot is to occur.
- Reboot now: Reboots the unit manually at once.

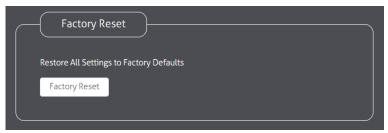
7.3.10 Language

Sets the display language for the unit welcome screen notifications and on-screen keyboard layout.



7.3.11 Factory Reset

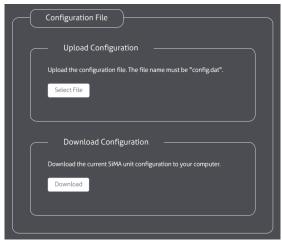
Restore unit to factory default. This can also be done via the RESET button on the back panel of the unit.



7.3.12 Configuration File

The configuration file contains all settings related to a unit. Users can export this configuration file from one unit and then import it into another unit to simplify the commissioning process. Additionally, installation site files can be saved after commissioning for documentation purposes.

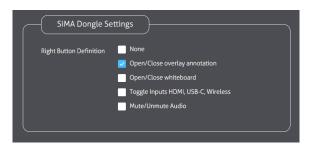




- Upload Configuration: The file name must be changed to "config.dat", if renamed, before uploading the file.
- Download Configuration: Download the current SI-S311 configuration to the computer.

7.3.13 SiMA Dongle Settings

Define function to the right button of the SiMA dongles.



- None: Undefined function, do nothing.
- Open/Close overlay annotation: Operate the annotation function.
- Open/Close whiteboard: Operate the whiteboard function.
- Toggle Inputs HDMI, USB-C, Wireless: Input switching function.
- Mute/Unmute Audio: Control the audio output.



7.4 EDID and HDCP

Configure the system EDID and HDCP settings.

7.4.1 EDID

EDID (Extended Display Identification Data) allows a source device to match its video resolution to that of the connected display. Typically, a source device obtains its EDID from the first display it connects to. Since the switcher is connected to displays with different capabilities, sometimes the built-in pre-defined EDID values can be used for better results. Or a custom EDID can be uploaded if the application requires this.



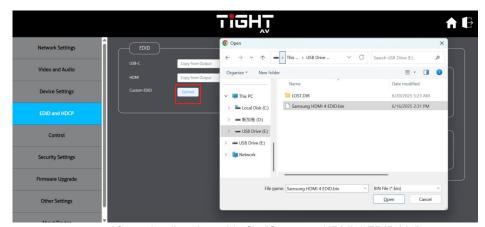
- USB-C: Select EDID for the USB-C input.
- HDMI: Select EDID for the HDMI input
- Custom EDID: Upload a custom EDID file in .bin format.

Pre-defined EDID:

- SiMA-1 3840x2160@60Hz RGB444&YUV420 12BIT Stereo Audio
- SiMA-2 3840x2160@50HzRGB444&YUV420 12BIT Stereo Audio
- o SiMA-3 3840x2160@30HzRGB444&YUV420 12BIT Stereo Audio
- SiMA-4 3840x2160@24Hz RGB444&YUV420 16BIT Stereo Audio
- o SiMA-5 1920x1080@60Hz RGB444 Stereo Audio
- SiMA-6 1920x1080@30Hz RGB444 Stereo Audio
- Copy from Output: Unit will pass-through the EDID from connected device on the HDMI output.



 Custom EDID: One Custom EDID file in .bin format can be uploaded in the following way:



 After uploading demo bin file "Samsung HDMI 4 EDID.bin" successfully it will be available in the unit EDID list.

SiMA-1 3840x2160@60Hz RGB444&YUV420 12BIT Stereo Audio

SiMA-2 3840x2160@50Hz RGB444 12BIT Stereo Audio

SiMA-3 3840x2160@30Hz RGB444&YUV420 12BIT Stereo Audio

SiMA-4 3840x2160@24Hz RGB444&YUV420 16BIT Stereo Audio

SiMA-5 1920x1080@60Hz RGB444 Stereo Audio

SiMA-6 1920x1080@30Hz RGB444 Stereo Audio

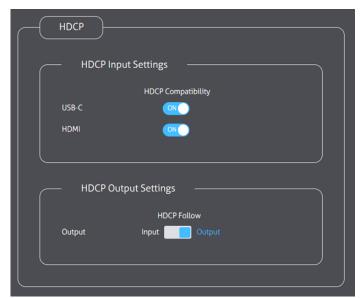
Copy from Output

SAMSUNG 3840x2160@60Hz RGB444 10BIT Audio 8-Channels Max

7.4.2 HDCP

HDCP (High-bandwidth Digital Content Protection) prevents digital audio and video content from being illegally recorded or intercepted by encrypting the transmission link. It is applicable to high-definition digital interfaces such as HDMI and DisplayPort.





7.4.2.1. HDCP Input Settings

Configure the HDCP compatibility for the USB-C and HDMI inputs. In certain applications where content is to be recorded or streamed over the internet, MAC PCs and other iOS devices must be prevented from automatically utilizing HDCP encryption for content that does not necessitate it. Turning off HDCP compatibility on the inputs allows the MAC or iOS device to output content without HDCP encryption. HDCP compatibility is enabled by default for both inputs.

7.4.2.2. HDCP Output Settings

Configure how the unit handles HDCP content from the source on the HDMI output. If input source content is not encrypted with HDCP then the output is also always unencrypted.

HDCP Follow:

- Output (default): If the source carries encrypted HDCP, the output should adapt to the preferred HDCP version of the downstream unit.
- Input: If the source carries encrypted HDCP, the output follows the same version as the source.

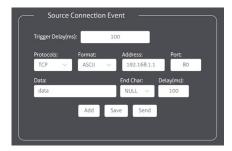


7.5 Control

In this section, users have the ability to configure the features of the SI-S311 control, including Trigger Commands, Serial Control, SNMP, Auto Status, and more.

7.5.1 Trigger Commands

Trigger Commands function as a simple control mechanism that can control third-party devices via UDP, TCP, or RS232. Custom commands can be initiated by events like connecting or disconnecting a source or powering on devices. Users can also design command macros that incorporate user-defined delays for each command to ensure correct order and appropriate delay. Add command by pressing "Add" button. Users can also test the command by pressing "Send" to verify function.





- Trigger Delay(ms): Define the delay time after an event has been triggered and the command macro start.
- Protocols: TCP, UDP and RS232
- Format: ASCII or HEX
- Address: Set IP address of the device to be controlled (UDP and TCP only)
- Port: Set the control port of the device to be controlled (UDP and TCP only)
- Data: Command data
- End Char: Set the command ending according to the device to be controlled.
 CR,CR+LF or NULL.
- Delay: Set the delay for the command relative to the initiation of the trigger event.
- Add: Add new command to the macro
- Save: Save command settings.



Send: Test the command to verify function.

7.5.1.1. Source Connection Event

Triggers when a new source is connected.

7.5.1.2. Source Disconnection Event

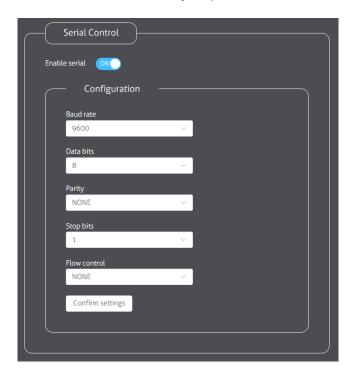
Triggers when a source is disconnected

7.5.1.3. Power On Event

Triggers when the SI-S311 is powered on.

7.5.2 Serial Control

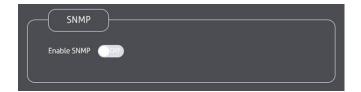
The serial port of the SI-S311 is enabled by default. When it is disabled, the RS-232 commands cannot be used to control the unit or send out commands to third-party devices. Set the Baud rate, Data bits, Parity, Stop bits, and Flow control as needed.





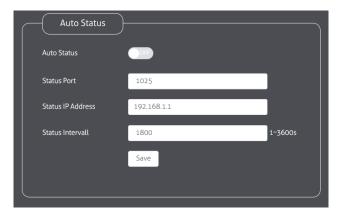
7.5.3 SNMP

The Simple Network Management Protocol (SNMP) is a protocol recognized as an Internet Standard, designed for the purpose of gathering and structuring information regarding managed devices within IP networks. The SI-S311 facilitates monitoring through SNMP. SNMP is disabled by default.



7.5.4 Auto Status

Auto status is a feature that allows the user to set up periodically sending UDP status to a target IP address and port at a user-defined interval.



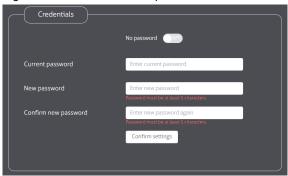
7.6 Security Settings

In this section, users have the ability to configure security-related functions for the sl-S311, including setting up Credentials, managing HTTPS Control, adjusting Security Level, reviewing Meeting History, configuring the Front Panel, enabling 802.1x Authentication, and managing Wifi AP.



7.6.1 Credentials

Manage the WEB UI login credentials. Users have the ability to establish a new administrator password. The default password is set to "admin". The minimum required password length is at least 5 characters. Additionally, users may opt to have no password, although this is not advisable for public installations.



7.6.2 HTTPS Control

Users have the option to permit only secure HTTPS connections to the WEB UI and to upload their own certificates.

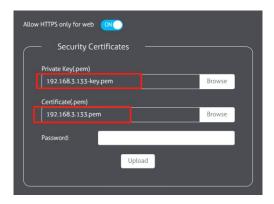




HTTPS, which stands for HyperText Transfer Protocol Secure, provides a secure method for transmitting data between your web browser and a website. It employs encryption to obscure the information, guaranteeing that only the designated recipient can comprehend it. This is especially crucial when logging in or sharing sensitive information.

7.6.2.1. Security Certificates

Upload certificates.



- Allow HTTPS only for web: Only accept HTTPS connections to the WEB UI.
 Disabled by default.
- Private Key(.pem): Upload the private key file (.pem) for the certificate
- Certificate(.pem): Upload the certificate file (pem).
- Password: Set password (optional)
- **Upload**: Upload the key and certificate to the Certificate Directory.

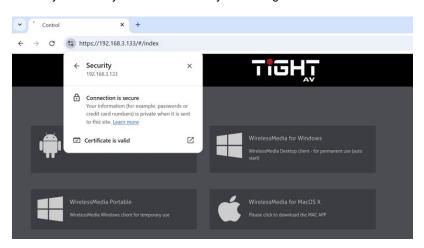


7.6.2.2. Certificate Directory

After uploading the certificate files, it can be found in the Certificate Directory as below example.



- To activate the certificate, check the Web Server tick box and restart the SI-S311 unit.
- · Verify the validity of the certificate by accessing the unit's WEB UI.





7.6.3 Security Level

Based on user requirements, it is possible to establish three distinct security levels in addition to one custom level to meet various security needs. To modify the relevant security features, please select the appropriate option from the menu.



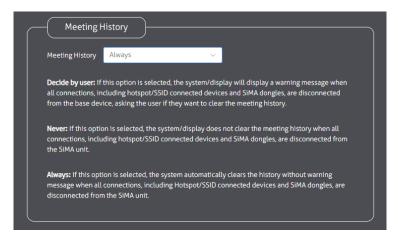
- **Level 1 (default)**: Maintains security during regular and daily operations for any organization, such as classrooms, standard meeting rooms, etc.
- Level 2: Offers enhanced security for businesses, organizations, government
 entities, etc., through robust encryption of audio and video data; additional
 security measures include restricting the transmission of "AirPlay" by
 implementing a password.
- Level 3: Designed for stringent security requirements of businesses, organizations, authorities, and banks. This level encompasses all security measures from "Level 2" and additionally blocks all mobile applications as well as the web settings GUI. Furthermore, firmware downgrades will not be permitted.
- Customized: Allows for the selection of the security level option based on the specific needs of the environment.



 The current Security Level can be found by looking on the welcome screen icon

7.6.4 Meeting History

Images, videos, and music from mobile units will be saved in the memory of the SI-S311 unit. This memory may be deleted at the end of a meeting when the last wireless source is disconnected.



- Decide by User: A dialog appears when the last wireless source is disconnected.
- Never: Storage capacity is automatically cleared when the memory reaches 90% utilization.
- Always: Memory is automatically deleted after each meeting.



7.6.5 Front Panel

Users have the ability to secure the front panel button to avoid unintentional activation of the button.





7.6.6 802.1x Authentication

802.1X is a port-based network access control standard that ensures only authorized devices can connect to a network. It's widely used in both wired Ethernet and wireless LANs (Wi-Fi) to protect against unauthorized access.

Think of it like a digital security checkpoint: before your device can access the network, it must present valid credentials—such as a username and password or a digital certificate—to an authentication server. This process happens through a network device, like a switch or Wi-Fi access point, which acts as the gatekeeper. Only after verification does your device gain access to network resources.

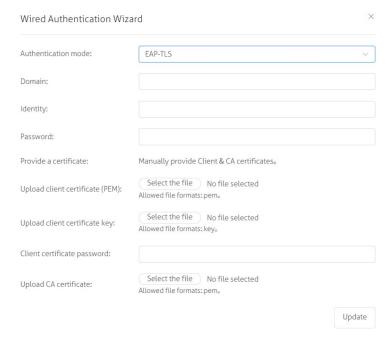
SI-S311 supports EAP-TLS, EAP-TTLS and PEAP authentication. 802.1x is disabled by default.



- Press "Set up 802.1x" to start the configuration wizard.
- Choose Authentication mode.
 - EAP-TLS: EAP-TLS is a secure method for 802.1X authentication that uses digital certificates to verify both the client and the server, making it highly secure against attacks.
 - EAP-TTLS: EAP-TTLS creates a secure tunnel using TLS, where the server authenticates with a certificate, and the client can use less secure methods like PAP or CHAP inside the tunnel, suitable for older systems.



PEAP: PEAP also uses a TLS tunnel for security, with the server authenticating via a certificate, and the client typically using MS-CHAPv2 for inner authentication, offering a balance between security and ease of use.



- Configure the Domain, Identity, Password, and certificates in accordance with your requirements and application.
- Press "Update" and then reboot SI-S311.



7.6.7 WiFi AP

User has the option to restrict the WEB UI access through the internal WiFi access point, permitting entry solely from the LAN.

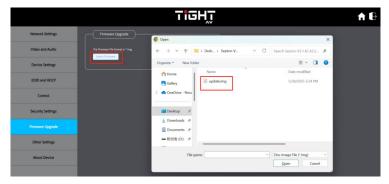


User-defined Commands are stored commands that can be triggered from WEB-UI or

7.7 Firmware Upgrade

The firmware upgrade can be performed through the WEB UI

1. Click the "Select Firmware" button to upload the .img file.





2. When file is selected you will see the new button "Upgrade" appear, click it to start the upgrade.



3. The upgrading process will be shown as below. SI-S311 will reboot automatically after the upgrade is done.



7.8 Other Settings

7.8.1 Auto Create Launcher

When a USB drive is connected to one of the USB ports located on the front panel of



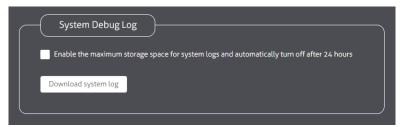
the Si-S311 unit, the Launcher program, known as the SiMA application, Windows, MAC and Android, will be automatically transferred to the USB memory.

This launcher can now function as a portable application that does not require installation on the user's PC. Users have the option to enable or disable this feature according to users preferences. By default, this function is enabled.



7.8.2 System Debug Log

This function is utilized to record the log when an issue arises. To initiate the download of the log file, click on the "Download system log" icon, and the system will automatically commence the download process. This file can then be sent to local distributor or manufacturer for troubleshooting.



Tick the box to allow for extensive log file over an extended period, up to 24 hours.

7.9 About Device

The information includes device Model Name, Firmware Version, Web server version, Serial Number of the SI-S311.





8. Firmware Upgrade

There are three different elements that can require firmware updating, SI-S311 the wireless dongles SI-DC and SI-HC.

8.1 Upgrading Firmware version of SI-S311

There are three methods to update the firmware of the SI-S311: through the WEB UI, via S-COMM, and using a USB drive.

- **WEB UI:** Please refer to section <u>7.7 Firmware Upgrade</u>
- S-COMM

S-COMM is a software application designed for management and mass deployment of the SiMA series units. The software can be downloaded from the product page at www.tightav.com.

- 1. Open S-COMM software.
- 2. Enter login credentials.
- 3. Select units to upgrade and click on Batch Command.





- Select option "Firmware Update".
- 5. Browse for the .img file on your PC and select.
- 6. Press "Update".



USB Storage drive:

- 1. Prepare a USB flash drive usinig FAT32 format.
- Rename the update file to "update.img".
- 3. Copy the update file "update.img" to the root directory of the USB drive.
- 4. Connect the USB drive to either USB 2.0 front port of SI-S311 unit.
- SI-S311 recognizes the "update.img"-file at the plugged-in USB drive automatically and starts the "Update" procedure. USB stick can be removed within 10 seconds to stop the update if needed.
- The upgrading progress displays on the welcome screen, and the SI-S311 will reboot automatically after completing the update.
- 7. Do not disconnect power during upgrading progress. Otherwise, the unit firmware will be corrupted.

8.2 Upgrading Firmware version of SI-DH / SI-DC

 Connect the SI-DH / SI-DC to the corresponding USB front port of the SI-S311 for the update. A message will automatically appear to indicate whether the firmware of the wireless SiMA Dongle is outdated and requires an upgrade.



2. The upgrade process initiates automatically alongside showing the progress bar on the welcome screen.



3. The dongle will automatically pair with the connected SI-S311 unit when update is done.



 The upgrading process has been completed. Disconnect the wireless SiMA Dongle (SI-DH / SI-DC), and it is now prepared for use.

9. Device Control

9.1 RS232

Establish a link between the RS232 port and a control device, such as a PC or control system, utilizing an RS232 cable. A detailed list of commands is provided for device management. To transmit these commands from a PC, it is essential to install RS232



control software, like Docklight. After the installation of the RS232 control software, verify that the COM port settings, including baud rate, data bits, stop bits, and parity bits, are configured correctly.

Communication protocol: RS232 communication protocol default parameters.

Baud rate: 9600

Data bit: 8 Stop bit: 1

Parity bit: none

9.2 TCP/IP Control

The device can be controlled over a network connection using TCP/IP protocol. Send commands to the unit IP address and control port.

- Unit IP Mode is DHCP by default.
- TCP control Port: 4001.

9.3 API Commands

API definitions:

Command ending symbol <CR>

Feedback ending with symbols <CR><LF>

Delimiter symbol "!"

Please type the command carefully due to case sensitivity.



Commands	Argument	Description	Response
System Settings			
	Argument	Query device all information	SI-S311! setdevicename,SiMA-Podium! pass,00002277! firmware,V1.0.0! sn,670-050002! setautostandby,5! setip,192.168.0.178! setsubnet,255.255.255.0! setgateway,192.168.0.1! mac,00:B0:D0:63:C2:24 setdns1,8.8.8.8! setdns2,8.8.4.4! wifiap,on! wifich,36! fplock,off! setclearhistory,2! set,1! autoswitch,on! setautoswitchprio,1! setcolorspace,0! videomute,off! hdmisync,off! setaudiomode,1! lovol,50! mute,off! setusbhost,1! usbeth,off! setedid,1:0! setedid,2:7! hdcpadvertising,1:on! hdcpadvertising,2:off!
			hdcphdmi,on! hdcpusbc,off!
			hdcpfollowdisplay! setser,4:8,1,1,1!



			cecdisplay,on! cecdevice,on! autostatus,on! setautostatusip,192.168.0.50! setautostatusport,50000! setautostatusinter,60!
reset		Factory reset the device.	reset ok
reboot		Reboot the device.	reboot ok
getfirmware		Query firmware version of the device.	firmware,V1.0.0!
poweron		Exit standby mode.	poweron ok
poweroff		Enter standby mode.	poweroff ok
getpower		Query standby mode status	poweron!
setautostandby,z	z = 0 ~5 0 = Never 1 = 1 Min 2 = 5 Min 3 = 10 Min 4 = 15 Min 5 = 30 Min	Set the auto standby time. Unit will enter standby mode after set period of time.	setautostandby,2 ok
getautostandby		Query the auto standby settings.	setautostandby,5!
setdevicename,zz	zz=Device name	Sets the device display name. Uses SSID naming convention.	setdevicename,SiMA-Podium ok
getdevicename		Query the device current device name.	setdevicename,SiMA-Podium!
getmodel		Query device model name	SI-S311!



getsn		Query device serial number	sn,670-050002!
90.011		-	·
fplock,z	z = on/off	Turn on or off the front	fplock,on ok
		panel lock	
getfplock		Query device front panel	fplock,off!
gonplook		lock status	
		Query the device current	pass,00002277!
getpass		password	
		Manually refresh the device	passupdate ok
passupdate		password	
	z = 0 ~6	Set the password update	setpassupdate,3 ok
	0 = Never	interval	•
	1 = 5 Min		
	2 = 30 Min		
setpassupdate,z	3 = 1 H		
	4 = 2 H		
	5 = 4 H		
	6 = 24 H		
		Query the password update	setpassupdate,0!
getpassupdate		interval	
	z = 1~3	Decide by user: If this	setclearhistory,3 ok
	z = 1~3 1 = Decide By User	Decide by user: If this option is selected, the	setclearhistory,3 ok
		•	setclearhistory,3 ok
	1 = Decide By User	option is selected, the	setclearhistory,3 ok
	1 = Decide By User 2 = Never	option is selected, the system/display will display a	setclearhistory,3 ok
	1 = Decide By User 2 = Never	option is selected, the system/display will display a warning message when all	setclearhistory,3 ok
	1 = Decide By User 2 = Never	option is selected, the system/display will display a warning message when all connections, including	setclearhistory,3 ok
	1 = Decide By User 2 = Never	option is selected, the system/display will display a warning message when all connections, including hotspot/SSID connected	setclearhistory,3 ok
setclearhistory,z	1 = Decide By User 2 = Never	option is selected, the system/display will display a warning message when all connections, including hotspot/SSID connected devices and SiMA dongles,	setclearhistory,3 ok
setclearhistory,z	1 = Decide By User 2 = Never	option is selected, the system/display will display a warning message when all connections, including hotspot/SSID connected devices and SiMA dongles, are disconnected from the	setclearhistory,3 ok
setclearhistory,z	1 = Decide By User 2 = Never	option is selected, the system/display will display a warning message when all connections, including hotspot/SSID connected devices and SiMA dongles, are disconnected from the base device, asking the	setclearhistory,3 ok
setclearhistory,z	1 = Decide By User 2 = Never	option is selected, the system/display will display a warning message when all connections, including hotspot/SSID connected devices and SiMA dongles, are disconnected from the base device, asking the user if they want to clear the	setclearhistory,3 ok
setclearhistory,z	1 = Decide By User 2 = Never	option is selected, the system/display will display a warning message when all connections, including hotspot/SSID connected devices and SiMA dongles, are disconnected from the base device, asking the user if they want to clear the meeting history.	setclearhistory,3 ok
setclearhistory,z	1 = Decide By User 2 = Never	option is selected, the system/display will display a warning message when all connections, including hotspot/SSID connected devices and SiMA dongles, are disconnected from the base device, asking the user if they want to clear the meeting history. Never: If this option is	setclearhistory,3 ok
setclearhistory,z	1 = Decide By User 2 = Never	option is selected, the system/display will display a warning message when all connections, including hotspot/SSID connected devices and SiMA dongles, are disconnected from the base device, asking the user if they want to clear the meeting history. Never: If this option is selected, the system/display does not clear the meeting history when all	setclearhistory,3 ok
setclearhistory,z	1 = Decide By User 2 = Never	option is selected, the system/display will display a warning message when all connections, including hotspot/SSID connected devices and SiMA dongles, are disconnected from the base device, asking the user if they want to clear the meeting history. Never: If this option is selected, the system/display does not clear the meeting	setclearhistory,3 ok



	1		
		devices and SiMA dongles,	
		are disconnected from the	
		SiMA unit.	
		Always: If this option is	
		selected, the system	
		automatically clears the	
		history without warning	
		message when all	
		connections, including	
		Hotspot/SSID connected	
		devices and SiMA dongles,	
		are disconnected from the	
		SiMA unit.	
		Query the clear history	setclearhistory,2!
getclearhistory		mode.	
	z = 1 ~4	Sets the security level used	setsecurity,1 ok
	1 = Level 1	by the SiMA unit.	<i>,</i> ,
setsecurity,z	2 = Level 2		
	3 = Level 3		
	4 = Customized		
		Query the current security	setsecurity,4!
getsecurity		level	
	z = on/off	Enable or disable the	showinfo,on ok
		device name and pass code	
showinfo,z		to be shown on the wireless	
		welcome screen	
getshowinfo		Query the showinfo status	showinfo,off!
		Force to show welcome	home ok
home		screen from any place in	
		wireless mode.	
help		Lists all availabe commands	
Video Signal Switchi	ng		



		T	
set,x	x = 1~3 1 = USB~C 2 = HDMI 3 = Wireless	Sets active input source "x".	set,1 ok
getset		Query active video source.	set,1!
autoswitch,z	z = on/off	Enable or disable unit input auto switching	autoswitch,on ok
getautoswitch		Query encoder auto switch mode	autoswitch,on!
setautoswitchprio,z	z = 1~3 1 = Prio USB~C 2 = Prio HDMI 3 = Prio Wireless	Set the input auto switching priority	setautoswitchprio,2 ok
getautoswitchprio		Query the auto switching priority setting	setautoswitchprio,1!
setcolorspace,z	z = 0~2 0 = Auto (default) 1 = RGB 2 = YCbCr444	Set the current output color space mode	setcolorspace,0 ok
getcolorspace		Query color space mode status	setcolorspace,0!
videomute,z	z = on/off	Unit to display black image video	videomute,on ok
getvideomute		Query the video mute status	videomute,off!
hdmisync,z	z = on/off	When on: 5V (HPD is always high on HDMI output port even if no active video is present. When off: No 5V or TMDS is present when no active video is present allowing for auto switching devices to switch downstream.	hdmisync,on ok
gethdmisync		Query HDMI Output Sync	hdmisync,off!



		status	
setairplaymode,z	z = 1~3 1 = High (1920x1080) 2 = Medium (1600x900) 3 = Low (1280x720)	Sets the Airplay quality mode	setairplaymode,1 ok
getairplaymode		Query the Airplay quality mode status	setairplaymode,1!
msmice,z	z = on/off	Enable or disable MS-MICE mode	msmice,off ok
getmsmice		Query MS-MICE mode status	msmice,on!
Audio Settings			
setaudiomode,z	z = 1~3 1 = Analog and HDMI (default) 2 = HDMI 3 = Analog	Set the audio output mode.	setaudiomode,3 ok
getaudiomode		query audio output mode status	setaudiomode,1!
lovol,z	Audio output volume z = 0~100 Volume value	Set the output audio volume	lovol,50 ok
getlovol		Get the current output audio volume	lovol,50!
lovolinc,z	z = 1~100	Output volume increases by "z" steps	lovol,30 ok
lovoldec,z	z = 1~100	Output volume decreases by "z" steps	lovol,10 ok
mute,z	z = on/off	Mutes or unmutes the output audio	mute,on ok
getmute		Query the mute status	mute,off!
USB Settings			



_	T		
setusbhost,x	x = 0~3 0 = Auto (Follow Source) 1 = USB~C (Manual) 2 = HDMI (Manual) 3 = Wireless (Manual)	Set USB Host input video port association	setusbhost,0 ok
getsetusbhost		Query current active USB Host	setusbhost,1!
usbeth,z	z = on/off	Enable or disable Ethernet to USB pass-through.	usbeth,on ok
getusbeth		Query Ethernet pass- through status	usbeth,off!
EDID Settings			
setedid,x:z	x = 1~2 1 = USB~C, 2 = HDMI z = 0~7 0 = Copy from Output 1 = 3840x2160@60Hz Stereo Audio 2 = 3840x2160@50Hz Stereo Audio 3 = 3840x2160@30Hz Stereo Audio 4 = 3840x2160@24Hz Stereo Audio 5 = 1920x1080@60 Stereo Audio 6 = 1920x1080@30 Stereo Audio 7 = User Defined	Set HDMI and/or USB-C input EDID	setedid,1:1 ok



getedid		Query the EDID setting	setedid,1:0! setedid,2:7!
getcurrentedid,x	x = 1~2, 1 = USB-C 2 = HDMI	Query current EDID stored on input "x" in raw hex format	currentedid,1: 00,00,00,,00,!
HDCP Settings			
hdcpadvertising,x:z	x = 0~2 0 = All inputs 1 = USB~C 2 = HDMI z = on/off	Sets the HDCP compatibility on or off for input "x".	hdcpadvertising,1:on ok hdcpadvertising,2:on ok
gethdcpadvertising		Query HDCP compatibility	hdcpadvertising,1:on! hdcpadvertising,2:off!
gethdcphdmi		Query HDMI input current HDCP status	hdcphdmi,on!
gethdcpusbc		Query USB-C input current HDCP status	hdcpusbc,off!
hdcp,on		HDMI output HDCP mode is Always On and follows the display HDCP version.	hdcp,on ok
hdcpfollowinput		HDMI Output HDCP mode and version follows the input source	hdcpfollowinput ok
hdcpfollowdisplay		HDMI Output HDCP version follows the output device	hdcpfollowdisplay ok
gethdcpoutput		Query HDMI output HDCP setting	hdcpfollowdisplay!
hdcp,off		Disable HDCP on output - ONLY FOR INTERNAL TROUBLESHOOTING PURPOSES- NOT IN MANUAL	hdcp,off ok



Control Settings	Control Settings			
serial,z	z = on/off	Enable or disable local RS232 port	serial,on ok	
getserial			serial,off!	
setser,x,y,z,a,b	x = 1~8 (baudrate) 1 = 1800 2 = 2400 3 = 4800 4 = 9600 5 = 19200 6 = 38400 7 = 57600 8 = 115200 y = 5~8 (data bits) z = 1~3 (parity) 1 = None 2 = Even 3 = Odd a = 1~2 (stop bits) b = 1~2 (flow control) 1 = None 2 = XON/XOFF	Set serial communication port baud rate, data bit, parity, stop bits and flow control.	setser,4,8,1,1,1 ok	
getser		Query the serial port settings	setser,4:8,1,1,1!	
sendascii zzz	zzz = ASCII command	Send the ascii command zzz on the local RS232 port using the unit serial settings when TCP/IP control is used		



	ı		
sendhex,x:zzzz	zzzz = HEX command	Send the hex command zzzz on the local RS232 port using the unit serial settings when TCP/IP control is used	
cecdisplay,z	z = on/off	Control display by SiMA device via CEC	cecdisplay,on ok
getcecdisplay		Query CEC Display Mode status	cecdisplay,on!
cecdevice,z	z = on/off	Control SiMA device by display via CEC	cecdevice,on ok
getcecdevice		Query CEC Device Mode status	cecdevice,on!
autostatus,z	z=on/off	Enable auto status feature sending out UDP "getstatus" response automatically to a user given IP address, UDP port and interval	autostatus,on ok
getautostatus		Query the Auto Status feature status	autostatus,on!
setautostatusip,zzzz zzz		Set the IP address for the auto status receiver system	setautostatusip,192.168.0.50 ok
getautostatusip		Query the auto status receiver IP address	setautostatusip,192.168.0.50!
setautostatusport,zz		Set the UDP for the auto status receiver	setautostatusport,50000 ok
getautostatusport		Query the auto status receiver UDP port	setautostatusport,50000!
setautostatusinter,z	z=1~3600	Set the time interval to send auto status updates in sec	setautostatusinter,60 ok
getautostatusinter		Query the auto status time interval	setautostatusinter,60!

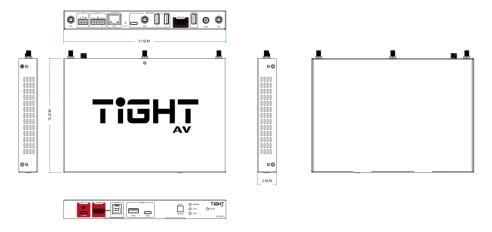


Network Settings	Network Settings			
setipdhcp		Set device IP mode to DHCP	setipdhcp ok	
setipstatic		Set device IP mode to Static	setipstatic ok	
setip,zz	zz = xxx.xxx.xxx.xxx IP address	Set manual IP address for the device (sets device to Static IP mode automatically)	setip,192.168.0.178 ok	
setsubnet,xxx.xxx.xx x.xxx		Set manual subnet	setsubnet,255.255.255.0 ok	
setgateway,xxx.xxx.		Set manual default gateway	setgateway,192.168.0.1 ok	
getipmode		Query ip mode status, DHCP or Static	setipdhcp!	
setnetwork,x,y,z	Set network parameters x = IP-Address y = Subnet Mask z = Default Gateway	Set device network parameters in a single command. (sets device to Static IP mode automatically)	setnetwork,192.168.0.178,255.25 5.255.0,192.168.0.1 ok	
getnetwork		Query device network parameters	setnetwork,192.168.0.178,255.25 5.255.0,192.168.0.1!	
getip		Query device current IP address	setip,192.168.0.178!	
getsubnet		Query device current Subnet address	setsubnet,255.255.255.0!	
getgateway		Query device current Gateway address	setgateway,192.168.0.1!	
getmac		Query device current MAC address	mac,00:B0:D0:63:C2:24	
setdns1,zz	zz = Primary DNS Address	Sets device primary DNS address	setdns1,8.8.8.8 ok	
setdns2,zz	zz = Secondary DNS	Sets device secondary DNS	setdns2,8.8.4.4 ok	



	Address	address	
getdns		Query DNS information	setdns1,8.8.8.8! setdns2,8.8.4.4!
wifiap,z	z=on/off	Enable or disable built-in WiFi access point	wifiap,on ok
getwifiap		Query WiFi access point status	wifiap,off!
getwifich		Query the WiFi channel	wifich,36!
getclientlist		Lists all wireless devices currently connected to the unit access points. First parameter = MAC address Second parameter = IP address	08:d4:0c:d1:1e:92,192.168.43.18 0! 08:ea:40:5d:24:66,192.168.43.15 2!
getclientno		Query number of connected clients	clientno,4!

10. Drawings and Dimensions





11. Network ports utilized

Port	Service
4001	Telnet
80	НТТР
443	HTTPS
161, 162	SNMP
5353	mDNS
1900, 8008, 8009, 8972	Chromecast
5353, 15550, 15560	Miracast
20000 - 20018	SiMA Dongles and App
5353, 54180, 53180	Airplay



12. Environment and recycling information



12.1 Disposal of electric and electronic devices EC Directive 2012/19/EU

This product is not to be treated as regular household waste but must be returned to a collection point for recycling electric and electronic devices. Further information is available from your municipality, your municipality's waste disposal services, or the retailer where you purchased your product.

12.2 Packaging recycling information

PAP	SCATOLA CORRUGATED PAPER BOX RACCOLTA CARTA MIXED PAPER AND CARD
PAP	BUSTA PER ACCESSORI ACCESSORIES BAG RACCOLTA CARTA MIXED PAPER AND CARD
PAP	PIATTINA ANIMATA CABLE TIE RACCOLTA CARTA MIXED PAPER AND CARD

Verifica le disposizioni del tuo comune Check the regulations of your municipality

Note: This manual is recycled as paper (mixed paper and card).





13. Troubleshooting

In this section, you will find potential issues and possible reasons that could occur while using the SI-S311. Please locate the issue in the table below and apply the recommended solution.

Problem	Cause	Solution
Using SI-S311 for Android application in Android device or Airplay on iOS device, it can't find SI-S311 device.	WiFi password of SI-S311 changed when android or iOS device is connected to the WiFi of SI-S311.	Reconnect the mobile by entering password displayed on welcome screen.
Image quality on the	The quality or length of the cable between the SI-S311 and the display or the connection between these two.	Replace the cable Use another cable. Check the cable to be fasten properly.
main display screen is not good.	Improper resolution for the main screen.	Change the resolution on the setting configuration and match it to the native resolution of the main screen. See chapter 6.2.1.1 Resolution
	WiFi problems. Interference in the radio channel. Overload in the radio channel. SI-S311 does not automatically jump to other channels when	Use a WiFi scanner to find a free wireless frequency and channel and select it via the setting configuration. Regularly check the RF environment if there are frequently changes in WiFi networks in your environment.



Bad wireless	there are changes in the RF	
connection. The	environment.	
	environment.	
connection between		
the SiMA Dongle and		Put the SI-S311 closer to the main
the SI-S311 is not stable.	Low signal strength: Metal cabinets, walls, construction elements, can cause reflections deteriorating the wireless signal. Obstacles between the wireless SiMA Dongle and SI-S311 cause lowering of the wireless strength and quality.	 Change the orientation of the antennas at the rear panel of SI-S311 to the SiMA Dongle direction. Remove or limit as much as possible all obstructions between the SiMA Dongle and SI-S311. Avoid placing the Base-unit in (metal) cabinets, suspended ceilings, under
		tables or in adjoining rooms.
	When you are using SI-S311" for the	
	first time on your laptop or for guests,	The best is: to download the App via LAN or
	you must copy the Launcher program	WiFi of Base-unit. When the Launcher program
	for first on your Laptop / PC. Run this	is preinstalled one time, SiMA app is ready to
	Starter-program. You can run the	use later immediately.
Can not get the SiMA	Starter App without Admin-rights.	
app to run when connecting the SiMA Dongle to Laptop.	Bad connection at USB port on the laptop.	Reconnect to the USB port. Try another USB port. Reboot the Laptop.
	Some types of USB devices might be blocked as the company policy. USB port setting on the laptop might limit the usage of high-power USB	If possible, change the USB port policy on the laptop.



Low video performance (sharpness, audio and video dropouts, video stream is jerking,)	The media-player is not ideal. The video quality also depends on the computing power of the PC / laptop and the interaction and CPU load with other running software applications. A laptop in battery mode can be switched to reduced computer power, to save energy. The transmission of HD video requires a certain amount of CPU power to guarantee the optimum quality of the transmission.	 Use another media-player (VLC player), another browser. Update the software of your Video-player to the latest version. Reduce the CPU usage of other software applications. Lower the screen resolution of the laptop. Update driver of graphic card. End low power mode at laptop.
	The content use HDCP	Check and configure on <u>6.4.2 HDCP</u>
The video is not shown on screen	The display cable (HDMI) is not correctly connected.	Insert the display cable to the display and the Base-unit.
	The displays are switched off.	Switch on the display.



	The SI-S311 base-unit is in standby mode, "Power-LED" is red color.	Power off and on again or insert a SiMA dongle into laptop.
Nothing is shown on the display at all.	The displays are switched off.	Switch on the display
No LAN connection	The display cable is not correctly connected.	Insert the display cable to the display and the SI-S311.
to the SI-S311.	The SI-S311 is in standby mode.	power off and on again the SI-S311.
	Wrong IP address.	IP address is not within LAN range. DHCP is not enabled.
No WiFi connection	Wrong WiFi frequency.	Check mobile device to select the correct 2.4GHz or 5GHz
between mobile devices and SI-S311.	Wrong SSID and password	Enter the correct SSID.
No audio when transmit local file to SI-S311.	Unsupportive audio format, including Dolby MS11, DDCO DTSLBR, DTSE, SRS- THEATERSOUND, DTS_StudioSound3D, DTS_HD.	If possible, reformat it to the other audio format, like DD, DD+, HE-AAC, DTS DMP, WMA, DRA, COOK
There is no sound at	No connected audio device.	Make sure the audio is turned on.



main display.	Volume is set to OFF.	Adjust the volume level at Options in menu of SI-S311.
	The volume level is set too low in the options of the SiMA app program on PC.	Adjust the volume in the SiMA app on PC.
	Audio signals may be muted.	Click with right-mouse button at speaker icon in the taskbar and switch on.
	The volume level is set too low.	Adjust the volume level at Options in menu of SI-S311.
	Audio is muted in mixer of volume in taskbar.	Right-mouse click at speaker icon in taskbar, open mixer and unmute SI-S311 or "Video Playback".
	The software of used Video-player is not actual.	Update Video-player. Try another player.
	An active virus scanner can block the Audio.	Check the filter-settings in Virus scanner. Deactivate the player for a check.



There is no sound with MacBook.	Problem of sound-flower App, which is integrated into driver SiMA app.	You need Admin-password. Go to the macOS System Preferences and select the "Security & Privacy" tab. Find the "allow to run/install the sound-flower" there click on "Allow" next to "Matt Ingalls", to allow this sound-flower to install on the Mac Book. Run the SiMA app again, it'll auto-install the sound-flower to the MacBook.
There is no sound via AirPlay.	The volume is set too low, on the mobile device.	Increase the volume on the mobile device.
There is no sound at main screen, when mirroring a video by the App SiMA for Android".	Due to the limit of the Android system, Android doesn't provide an interface to capture the audio. In this case, there is no sound when mirroring the video.	Use wireless SiMA Dongle or Apple Airplay to do mirroring when necessary.
Can not update firmware of the SI-S311.	Flash disk format is NTFS.	Please re-format the flash disk to be FAT format to update it.
Can not work airplay with MacBook / iPhone	Operation System Requirement Mac OS 10.9 iOS 8.0 and later (SiMA app).	To use AirPlay, you must connect the iOS device to the WiFi of SI-S311 and enable the AirPlay feature in the Control Center.



/ iPad.		Update the iOS device to a newer operating system.
Poor Video-quality with AirPlay.	a) Mirroring: 1: 1 copy of the screen b) Streaming: Videos (Internet, Youtube); The image will not be displayed on the iOS device.	Reduce "Quality" in settings of Youtube, for example from "Automatic" to 720p.
Can not work with Android device.	Operation System Requirement Android 2.3 and later (SiMA app).	Update to the latest OS.