

Nextiva S5503 PTZ Cameras

User Guide

February 06, 2013

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Device Compliance

For compliance information, visit https://online.verint.com and refer to the device declaration of conformity.

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Safety

Always observe the following precautions to reduce the risk of injury and equipment damage:

- Do not touch the Nextiva S5500 PTZ series during a lighting storm. During prolonged inactivity, please unplug the power cable and the video cable to avoid damage from lightning strike and power surges.
- Only use the recommended power cable for powering the Nextiva S5500 PTZ series.
- Turn off the Nextiva S5500 PTZ series as soon as smoke or unusual odors are detected.
- Keep the Nextiva S5503PTZ-18ID models away from water. If it become wet, turn off immediately.
- Do not place the Nextiva S5500 PTZ series near a heat source.
- Do not place the Nextiva S5503PTZ-18ID models in a high humidity environment.
- Keep the Nextiva S5503PTZ-18ID PTZ IP cameras away from direct sunlight.
- Do not disassemble the Nextiva S5500 PTZ series.
- Do not drop the Nextiva S5500 PTZ series.
- Do not insert sharp or tiny objects or spill liquids into the Nextiva S5500 PTZ series to avoid short circuits.
- The operating temperature for the Nextiva S5503PTZ-28DW and S5503PTZ-36DW models: -40°F to 122°F (-40°C to 50°C), with maximum humidity at 90% relative, non-condensing.
- The operating temperature for the Nextiva S5503PTZ-18ID models: 14°F to 122°F (-10°C to 50°C).
- Do not place the Nextiva S5500 PTZ series on an unstable cart, tripod, or on a tabletop as personal injury and damage to the unit may occur due to a fall. Please use officially certified support, frames, and accessories included with the product. Follow the instructions in this Instruction Manual during installation to ensure the quality and maintain safety.
- Please follow the labelled specifications on the Nextiva S5500 PTZ series and supply with the correct power. If unsure of the actual power requirements, please contact the distributor and do not connect the power at will.
- The power cable must be properly secured as improper connections may cause a short

Read Before Use

The use of surveillance devices may be prohibited by law in your country. The Network Camera is not only a high-performance web-ready camera but can also be part of a flexible surveillance system. It is the user's responsibility to ensure that the operation of such devices is legal before installing this unit for its intended use.

It is important to first verify that all contents received are complete according to the Package Contents. Carefully read and follow the instructions in the Installation chapter to avoid damage due to faulty assembly and installation. This also ensures the product is used properly as intended.

These devices are only meant to be installed by licensed technical experts in the area of surveillance and network installation. Installation of this equipment by untrained or unqualified personnel may violate the product warranty and may be illegal in some jurisdictions.

Preface

The Nextiva® S5500 PTZ Series User Guide presents information and procedures on installing, configuring, and using the indoor and outdoor PTZ IP cameras.

Documentation and Firmware

- Download the documentation of Nextiva IP cameras and encoders from: <u>http://www.verint.com/solutions/video-situation-</u> intelligence/resources/index
- Download the documentation of the Nextiva VMS software and the latest firmware from the extranet: https://online.verint.com.
- Send your questions or comments on the current document, or any other Nextiva user documentation, to our documentation feedback team at <u>documentationfeedback@verint.com</u>

Contacting Verint

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To contact us for sales, pricing and general inquiries, refer to the coordinates below:

Location	Contact Information
Americas	videoinfo@verint.com
	+1 866-639-8482 for Nextiva VMS and Nextiva Intelligent Edge Devices
	+1-800-638-5969 for Nextiva Intelligent DVRs
Europe, Middle East, and Africa	marketing.emea@verint.com
	+44 (0) 1932 839500
Asia/Pacific	marketing.apac@verint.com

Location	Contact Information
	+ 852 2797 5678

Contacting Service and Support

To request the latest versions of firmware and software or to download other product-related documents, you need access to the Verint Video Intelligence Solutions partner extranet. To register, go to https://online.verint.com.

If you encounter any type of problem after reading this guide, contact your local distributor or Verint representative. For the main service and support page on the Verint web page, visit http://www.verint.com/solutions/video-situation-intelligence/Nextiva-Service-and-Support/index. For assistance, contact the customer service team:

Location	Contact Information	
USA and Canada	+1-888-747-6246	
	vissupport@verint.com	
	Open 9:00 am to 5:00 pm (EST) Monday to Friday	
Central and Latin America	+1-303-254-7005	
	vissupport@verint.com	
	Open 9:00 am to 5:00 pm (EST) Monday to Friday	
Europe, Middle East, and Africa	+44 (0) 845-843-7333	
	customersupport.emea@verint.com	
	Open 8:30 am to 5:30 pm (GMT) Monday to Friday	
Asia/Pacific	Hong Kong: +852 2797 5678	
	Singapore: +65-68266099	
	APAC_VIS_Services@verint.com	
	Open 9:00 am to 6:30 pm (Monday to Thursday)	
	9:00 am to 5:30 pm (Friday)	

Summary of Changes

This section lists technical updates and new material added to the Nextiva User Guide.

Revision 2 - October 2011

This is the second edition of the Nextiva S5500 PTZ Series User Guide.

Updates

- Added new procedure for installing the outdoor model using a pendent pipe. See "Installing the Nextiva S5500 PTZ Outdoor IP Cameras" (page 21).
- Added a procedure for configuring the IP address using SConfigurator. See "Obtaining and Setting the IP Address" (page 1).

Revision 1 - May 2011

This is the first edition of the Nextiva S5500 PTZ Series User Guide. The Nextiva S5500 PTZ Series are compatible with Nextiva VMS 6.2 and higher.

	Nextiva S5500 PT2	Z Series	
	S5503PTZ-18ID	S5503PTZ-28DW	S5503PTZ- 36DW
H.264	√	\checkmark	v
4CIF	\checkmark	\checkmark	\checkmark
D1	\checkmark	\checkmark	\checkmark
24V AC	\checkmark	\checkmark	\checkmark
Quad-stream H.264, MJPEG	\checkmark	\checkmark	~
Weatherproof Dome		V	~

Features

	Nextiva S5500 PTZ Series		
	S5503PTZ-18ID	S5503PTZ-28DW	S5503PTZ- 36DW
Dome	v	\checkmark	v

Chapter

Nextiva S5500 Series Overview

The Nextiva S5500 Series series incorporates advanced Verint H.264 encoding technology with a high- performance PTZ platform. The results are ultraefficient IP PTZ cameras with superior imagery, lower network bandwidth utilization, and full integration with the Nextiva video management portfolio.

The following topics are discussed:

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Frame Rate and Performance	

Nextiva S5500 PTZ Series Overview

The feature-rich Nextiva S5500 PTZ series includes 18x, 28x and 36x optical zoom lens models for a variety of applications, as well as superior low light, day/night performance, and excellent dynamic range for challenging lighting conditions. Verint encoding technology delivers H.264 compression at up to D1 resolution at 30 fps. The S5500 PTZ series also features full simultaneous analog video out and control, for live recording and seamless operation as a retrofit or in a blended analog/IP configuration. This allows security personnel to operate the camera with zero control lag on-site, or to remotely control the PTZ with Nextiva Video Management Software or the Nextiva EdgeVR® network video recorder.

Hardware Overview

The Nextiva S5500 PTZ series features programmable tilting, auto pan and alarm inputs. The Nextiva S5500 PTZ series feature 360° continuous pan and can burst pan at 430°/sec for programmable stops. The cameras have an impressive 184° tilt range for viewing areas above their horizon. With up to 24 three-dimensional programmable privacy masks, the Nextiva S5500 PTZ series combine high-performance with the recognition that not all areas the camera can see should be seen by the operator – making the Nextiva S5500 PTZ series the perfect urban or

city-center devices.

The Nextiva S5500 PTZ series are available in the following models:

- Nextiva S5500 PTZ Indoor IP Cameras
 - S5503PTZ-18ID-P-S (Smoke bubble, PAL)
 - S5503PTZ-18ID-N-S (Smoke bubble, NTSC)
- Nextiva S5500 PTZ Outdoor IP Cameras
 - S5503PTZ-28DW-P-C (Clear bubble, PAL)
 - S5503PTZ-28DW-N-C (Clear bubble, NTSC)
 - S5503PTZ-28DW-P-S (Smoke bubble, PAL)
 - S5503PTZ-28DW-N-S (Smoke bubble, NTSC)
 - S5503PTZ-36DW-P-S (Smoke bubble, PAL)
 - S5503PTZ-36DW-N-S (Smoke bubble, NTSC)

Nextiva S5503 PTZ Indoor IP Cameras

The Nextiva S5503 PTZ indoor IP Camera is available in two models.



- 18X Optical Zoom Lens
 - S5503PTZ-18ID-P-S (Smoke bubble, PAL)
 - S5503PTZ-18ID-N-S (Smoke bubble, NTSC)

Nextiva S5503 PTZ Outdoor IP Cameras

The Nextiva S5503 PTZ Outdoor IP Camera is available in four models.



- 28X Optical Zoom Lens
 - S5503PTZ-28DW-P-S (Smoke bubble, PAL)
 - S5503PTZ-28DW-N-S (Smoke bubble, NTSC)
- 36X Optical Zoom Lens
 - S5503PTZ-36DW-P-S (Smoke bubble, PAL)
 - S5503PTZ-36DW-N-S (Smoke bubble, NTSC)

Nextiva S5500 PTZ series Connectors

The following diagram outlines the different connectors available on the Nextiva S5500 PTZ series.



Description

- 1. BNC Connector (Video Out)
- 2. Preset Alarm Out:
 - Open (White)
 - Com (Light Blue)
 - Close (Pink)
- 3. Preset Alarm In:
 - In 1 (Brown)
 - In 2 (Red)
 - In 3 (Orange)
 - In 4 (Yellow)
 - In 5 (Green)
 - In 6 (Blue)
 - GND (Purple)
 - GND (Grey)
- 4. Power:
 - AC 24V (Black)
 - AC 24V (White)
 - GND (Green)
- 5. RS485:
 - + (Orange)
 - - (White)
- 6. RJ-45 Connector
- 7. IP Alarm
 - In 1 (Green)
 - GND (Red)
- 8. IP Alarm
 - In 2 (Blue)
 - GND (Red)
- 9. IP Alarm Out
 - Out A (Yellow)
 - Out B (Brown)
- 10. IP Reset (Purple and Grey)

Frame Rate and Performance

The Nextiva S5500 PTZ series support H.264 and MJPEG. Video decoding is supported at up to D1 at 30fps on four independent streams (3 \times H.264 and 1 \times MJPEG). In general, the performance for displaying video on monitors varies depending on the tile layout, screen resolution, compression mode, and bitrate.

The following settings can be supported simultaneously on the two encoders when streaming in H264 format. The Nextiva S5500 PTZ series can also stream in MJPEG. Do not assume any improvements if those codec are used since the Nextiva S5500 PTZ series are optimized to stream H264 as well as MJPEG.

Resolution	NTSC	PAL
CIF	352 × 240	352 × 288
2CIF	704 × 240	704 × 288
4CIF	704 × 480	704 × 576
D1	720 × 480	720 × 576

Chapter

Installing the Nextiva S5500 PTZ series

From the indoor in-ceiling model, to the pendant-mount weatherproof outdoor model, the Nextiva S5500 PTZ series come in a wide selection of types, housing and mounting options to meet an array of installation and operational requirements. The section describes the package contents of the Nextiva S5500 PTZ series and how to install the outdoor and indoor models.

The following topics are discussed:

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Connecting the Nextiva S5500 PTZ Series to a Monitor	36

Package Contents

- One Preset Alarm In
- One Preset Alarm Out
- One IP Alarm In_1
- One IP Alarm In_2
- One IP Alarm Out
- One IP Reset
- One Power In (24VAC) Terminal
- One LAN RJ-45 Adapter Female to Female
- S5503PTZ-18ID
 - One S5503PTZ-18ID camera (S5503PTZ-18ID-P-S (Smoke bubble, PAL) or S5503PTZ-18ID-N-S (Smoke bubble, NTSC))
 - Nextiva S5500 PTZ Series Indoor Quick Installation Guide
- S5503PTZ-28DW camera (S5503PTZ-28DW-P-S (Smoke bubble, PAL) or S5503PTZ-28DW-N-S (Smoke bubble, NTSC))
 - One Torx Key
 - One Hex (Allen) Key
 - One Set screw
 - Nextiva S5500 PTZ Series Outdoor Quick Installation Guide
- S5503PTZ-36DW (S5503PTZ-36DW-P-S (Smoke bubble, PAL) or S5503PTZ-36DW-N-S (Smoke bubble, NTSC))
 - One Torx Key
 - One Hex (Allen) Key
 - One Set screw
 - Nextiva S5500 PTZ Series Outdoor Quick Installation Guide

Installing the Nextiva S5500 PTZ Series

This section explains how to mount the Nextiva S5500 PTZ series on a wall, pole or ceiling.

Tip

Before installing the camera, look for a shooting area that best suits your needs.

Installing the Nextiva S5500 PTZ Outdoor IP Cameras

This section explains how to install the Nextiva S5503PTZ-28DW or S5503PTZ-36DW models.

Note

The mounting hardware must be ordered separately.

- To install the Nextiva S5500 PTZ Outdoor IP Cameras on the wall:
 - 1. Remove the dome cover from the PTZ camera using the supplied screwdriver.
 - 2. Remove the lens cover and the foam protector.
 - 3. Drill four pilot holes on the wall matching the mount holes on the plate.
 - 4. Secure the plate to the wall.
 - 5. Remove the connector ring from the PTZ camera and replace with the connector ring that comes with the support.



6. Fasten the connector ring to the wall hang support in the clockwise direction.



Note

If you are using a water sealant, you must cover the entire portion of the spiral tooth of the connector ring with the sealant. This will prevent rain water leaking through the connection.

- 7. Thread the cabling of the main unit through the short aluminum tube and the wall hang support.
- 8. Push the cables out from the bottom of the support.
- 9. Pull out the cables and connect the main unit to the connector ring in the clockwise direction.
- 10. Use a hex driver to secure the stop screw to the connector ring and fasten the safety cable to the wall.



- 11. Attach the dome cover to the camera.
- ► To install the Nextiva S5500 PTZ Outdoor IP Cameras on a pendant pipe:
 - 1. Remove the dome cover from the PTZ camera using the supplied screwdriver.
 - 2. Remove the lens cover and the foam protector.
 - 3. Remove the connector ring (Female pipe thread G1-1/2) from the PTZ

camera and fasten it to the pipe in a clockwise direction.

- 4. Route the cables through the connector ring and the pipe.
- 5. Connect the main unit to the connector ring in a clockwise direction.



6. Attach the dome cover to the camera.

- ► To install the Nextiva S5500 PTZ Outdoor IP Cameras on a pole:
 - 1. Remove the dome cover from the PTZ camera using the supplied screwdriver.
 - 2. Remove the lens cover and the foam protector.
 - 3. Thread the metal strap through the rectangular holes on the corner support.



- 4. Use a Philips screwdriver to tighten the metal strap, and then line up the holes on the wall mount box to the holes on the support.
- 5. Secure the wall mount to the metal plate.
- 6. Remove the connector ring from the PTZ camera and replace with the connector ring that comes with the support.
- 7. Fasten the connector ring to the wall hang support in the clockwise direction.



Note

If you are using a water sealant, you must cover the entire portion of the spiral tooth of the connector ring with the sealant. This will prevent rain water leaking through the connection.

- 8. Thread the cabling of the main unit through the short aluminum tube and the wall hang support.
- 9. Push the cables out from the bottom of the support.
- 10. Pull out the cables and connect the main unit to the connector ring in the clockwise direction.
- 11. Use a hex driver to secure the stop screw to the connector ring and fasten the safety cable to the wall.



12. Attach the dome cover to the camera.

► To install the Nextiva S5500 PTZ Outdoor IP Cameras in a corner:

- 1. Remove the dome cover from the PTZ camera using the supplied screwdriver.
- 2. Remove the lens cover and the foam protector.
- 3. Drill four holes on the wall.
- 4. Secure the corner mount to the wall and secure the wall mount to the corner mount.



- 5. Remove the connector ring from the PTZ camera and replace with the connector ring that comes with the support.
- 6. Fasten the connector ring to the wall hang support in the clockwise direction.



Note

If you are using a water sealant, you must cover the entire portion of the spiral tooth of the connector ring with the sealant. This will prevent rain water leaking through the connection.

- 7. Thread the cabling of the main unit through the short aluminum tube and the wall hang support.
- 8. Push the cables out from the bottom of the support.
- 9. Pull out the cables and connect the main unit to the connector ring in the clockwise direction.
- 10. Use a hex driver to secure the stop screw to the connector ring and fasten the safety cable to the wall.



11. Attach the dome cover to the camera.

► To install the sun shield:

1. Place the sun shade over the main unit.



2. Use a hex driver to secure the screw to the connector ring clockwise.



Installing the Nextiva S5500 PTZ Indoor IP Camera

This section explains how to install the Nextiva S5503PTZ-18ID models.

- To install the Nextiva S5500 PTZ Indoor IP Camera:
 - 1. Remove the four tapes from the dome cover then open the dome cover counterclockwise.



2. Remove the foam and the tapes from the side hooks.



3. Move the side hooks to the bottom track by turning the screws





4. Push the side hooks to the center.



5. Glue the guide pattern on ceiling, cut the hole then mount the camera on ceiling.



6. Push the side hooks to both side, then move the iron hooks by turning screws clockwise to fasten on ceiling.



Caution The minimum ceiling load required is 3.6Kg (7.9 lb).

Powering the Nextiva S5500 PTZ Series

Use the following procedure to power the Nextiva S5500 PTZ Series using a 24V AC for power.

Note

The Nextiva S5503PTZ-18ID requires 18W and the Nextiva S5503PTZ-28DW and S5503PTZ-36DW requires 46W (With a high-speed dome camera: 20W, with a heater: 26W)

- To power the Nextiva S5500 PTZ Series using a 24V AC power supply:
- 1. Connect the wires (Black and White) from the camera to the terminal block.
- 2. Connect the ground wire (Green) to a proper electrical ground.
- 3. Connect the wires from the power supply to the terminal block.
- 4. Plug the power supply cable to the power outlet.

Connecting the Nextiva S5500 PTZ Series to the Network

Use the following procedure to connect the Nextiva S5500 PTZ Series to the network.

- To connect the Nextiva S5500 PTZ Series to the network:
- 1. Connect the RJ45 male connector to the RJ45 coupler.
- 2. Connect an ethernet cable into the RJ45 coupler.

Connecting the Nextiva S5500 PTZ Series to a Monitor

Use the following procedure to connect the Nextiva S5500 PTZ Series to a monitor.

- ► To connect the Nextiva S5500 PTZ Series to a monitor:
- 1. Connect the video out connector from the camera to the BNC connector from the monitor.
Chapter

3

Configuring the IP Settings

Once you have connected the Nextiva S5500 PTZ Series to the network, you can begin configuring the IP camera to ensure that it can communicate with the attached devices and with a video management software over the network.

The following topics are discussed:

Device Configuration	38
IP Address Configuration	39
Setting the Video Standard	46
Video Profile	50
Setting the SNMP Properties	58
Viewing Live Video	61
Configuring PTZ Address	64

Device Configuration

Once you have connected all the equipment to the device, you can begin configuring the device to ensure that it can communicate with the attached devices and with a video management software over the network. In order to configure the device, you first need to obtain the IP address using SConfigurator.

- 1. Using SConfigurator: SConfigurator is a PC-based administration tool that you can use over any TCP/IP network. You use SConfigurator to:
 - Configure Nextiva edge devices
 - Add security in your system
 - Get information on the devices connected on the network
 - Connect edge devices together
 - Update the firmware of the devices
 - Align the antennas of wireless devices
 - Manage licenses
 - Using a Video Management Software: You can use any video management software to configure the device.
- 2. Using a Video Management Software: You can use any video management software to configure the device.

Caution

Any changes made using the video management software will override the changes made using SConfigurator or the Web Interface.

 Using the Web Interface: The Nextiva S5500 PTZ Series have a selfcontained web server allowing you to connect directly to it using a web browser. The Web Interface is a browser-based tool that allows you to configure the Nextiva S5500 PTZ Series. For complete information on the Web Interface, refer to the Web Interface User Guide.

Note

The default username and password for the Web Interface is admin. We recommend that you change the default password for the Edge device to a more secure password.

IP Address Configuration

By default, all S1800e series devices are Dynamic Host Configuration Protocol (DHCP) enabled. If you have a DHCP server, the device will automatically obtain a valid IP configuration. If the DHCP configuration fails, the device assigns itself a temporary IP address based on the Automatic Private IP Addressing (APIPA) addressing format.

Note

If you plan on using the S1800e series devices with the Nextiva video management software, you need to disable the DHCP setting and manually set an IP address for the device.

The APIPA scheme, available on the Windows operating systems, allows a device to assign itself a temporary IP address until it receives a complete network configuration, either manually or from a DHCP server.

A device in APIPA mode does not reside on the same subnet as the other devices on the IP network. Therefore, it may not be able to view or be visible by the other devices. All Nextiva edge devices use the following temporary APIPA configuration:

- IP address: 169.254.X.Y (where X and Y are based on the last two octets of the MAC address of the device)
- Subnet mask: 255.255.0.0
- Gateway: 169.254.*.*

Setting a DHCP IP Address

The S1800e series devices automatically obtains the IP network configuration from a DHCP server. Use this procedure if you are switching an encoder from a manual configuration to one using a DHCP server.

- ► To set a DHCP address
 - 1. Start SConfigurator.
 - 2. Select the Units tab, then click Discover.
 - 3. Select the Nextiva device, and click Configure.
 - 4. In the tree view, click **Unit > Network > IP**.

Unit Configuration [S1801e-R-HDI	MI00079a020128 (172.22.118.136)	1	×
<mark>⊡- Unit</mark>	Unit \ Network \ IP		
	Network Interface Config Obtain an IP addre Automatic private II Use the following If IP Address : Subnet Mask	guration mode: ss automatically (DHCP) P address (APIPA) P address: 172 . 22 . 118 . 136 255 . 255 . 255 . 0	
Audio	<u>G</u> ateway :	192 . 168 . 1 . 254	
	Host <u>N</u> ame :	S1801e-R-HDMI-KDM	
		ОК	Cancel

- 5. Select Obtain an IP automatically (DHCP).
- 6. Click **OK** to close the **Unit Configuration** dialog box.
- 7. Click **Exit**.

Setting a Static IP Address

If you plan on using the S1800e series devices with the Nextiva video management software, you need to disable the DHCP setting and manually set a static IP address.

- To set a static IP address
 - 1. Start SConfigurator.
 - 2. Select the Units tab, then click Discover.
 - 3. Select the Nextiva device, and click Configure.
 - 4. In the tree view, click **Unit > Network > IP**.

Unit Configuration [S1801e-R-HDMI0007	9a020128 (172.22.118.136)]		— ×-
 Unit Network VSIP SSL SNMP NTP Video Serial Port Audio 	Unit \ Network \ IP Network Interface Configuratio Obtain an IP address au Automatic private IP add Use the following IP add IP Address : Subnet Mask : Gateway : Host Name :	an mode: tomatically (DHCP) tress (APIPA) 172 22 118 136 255 255 255 0 192 168 1 254 S1801e-R-HDMI-KDM	

- 5. Select Use the following IP address.
- 6. In the **IP Address** box, type the device IP address.
- 7. In the **Subnet Mask** box, type the address specifying the subnet in which the IP address belongs.
- 8. In the **Gateway** box, type the IP address of the server that acts as an access point to another network.

Note

You do not need to use a gateway if the device communicates with other devices on the same subnet.

- 9. In the **Host Name** box, type a unique name for the device.
- 10. Click **OK** to close the **Unit Configuration** dialog box.
- 11. Click Exit.

Setting a DHCP IP Address

The S1800e series devices automatically obtains the IP network configuration from a DHCP server. Use this procedure if you are switching an encoder from a manual configuration to one using a DHCP server.

To set a DHCP address

- 1. Start the Web Interface.
- From the tree, select Configuration > Network.

Network Use the Network panel to assign a host name and IP address for the unit. If your network has a DHCP server, it can automatically assign an IP address. Otherwise, contact your network administrator for the appropriate IP settings. The device must be rebooted after applying the configuration S1816e-KDM Hostname : Default Gateway : (Enter an IP address of a specific gateway) Current Gateway : 172.22.0.1 MTU: 1500 (reboot required) Web Server Port : 80 (reboot required) Ethernet Adapter 1 Ethernet Adapter 2 Current IP Address : 172.22.118.91/16 MAC Address : 00:07:9a:18:06:58 Link Speed : Auto Detect ~ Obtain an IP address automatically O Use APIPA addressing algorithm Use the following IP address: IP Address : 192.168.1.1 Subnet Mask : 255.255.255.0 DHCP Timeout : 15 (reboot required) Apply Cancel

- 3. In the **Hostname** box, type a unique name for the Edge device.
- In the **Default Gateway** box, type the IP address of the server that acts as an access point to another network. You can obtain the IP address of the default gateway by asking the network administrator.

Note

You do not need to use a gateway if the device communicates with other Edge devices on the same subnet.

5. In the **MTU** box, type largest protocol data unit that the layer can pass onwards.

- 6. In the **Web Server Port** box, type the http port number to use as an access point to the internet. The default value is 80.
- 7. In the Ethernet Adapter 1 tab:
 - a. In the Link Speed list, select the speed and mode of the network:
 - **Auto detect**: The unit will automatically detect the network speed and mode.
 - **1 Gbps full duplex**: The unit sends and receives 1 Gbps of data in both directions at the same time.
 - **1 Gbps half duplex**: The unit sends and receives 1 Gbps of data in both directions, but not at the same time.
 - **100 Mbps full duplex**: The unit sends and receives 100 Mbps of data in both directions at the same time.
 - **100 Mbps half duplex**: The unit sends and receives 100 Mbps of data in both directions, but not at the same time.
 - **10 Mbps full duplex**: The unit sends and receives 10 Mbps of data in both directions at the same time.
 - **10 Mbps half duplex**: The unit sends and receives 10 Mbps of data in both directions, but not at the same time.

Note

If you are unsure of the network settings, select Auto detect to automatically detect the speed and mode of the network. You can also contact the network administrator to provide you with the correct settings.

b. Click Obtain an IP address automatically.

- c. In the **DHCP Timeout** box, type the number of seconds to wait for a response from a DHCP server before using the APIPA address.
- 8. Click Apply.

Note

The **Ethernet Adapter 2** tab corresponds to LAN 2 on the S1808e, S1808e-A, S1816e, S1816e-A and S816e-SP encoders, and is used by support for debugging purposes. The S1816e-SR model does not have a second ethernet port.

The default IP address of LAN 2 is set to 172.29.204.254 with subnet mask 255.255.255.252. Any computer connecting to the S1800e multiport encoders must use the following IP address 172.29.204.253.

Setting a Static IP Address

If you plan on using the S1800e series devices with the Nextiva video management software, you need to disable the DHCP setting and manually set a static IP address.

- To set a static IP address
 - 1. Start the Web Interface.
 - 2. From the tree, select **Configuration > Network**.

Use the Network par network has a DHCF contact your networl be rebooted after ap	nel to assign a host nam 9 server, it can automati k administrator for the a oplying the configuration	e and IP address for the unit. If your cally assign an IP address. Otherwise, ppropriate IP settings. The device must
Hostname :	S1816e-KDM	
Default Gateway :		(Enter an IP address of a specific gateway)
Current Gateway :	172.22.0.1	
MTU:	1500	(reboot required)
Web Server Port :	80	(reboot required)
Current IP Address	s : 172.22.118.91/16	
MAC Address :	OU:07:98:18:06:58	~
 Obtain an IP a Use APIPA add Use the follow IP Address : Subnet Mask : DHCP Timeout : 	dress automatically dressing algorithm ing IP address 192.168.1.1 255.255.255.0 15	(reboot required)

- 3. In the **Hostname** box, type a unique name for the Edge device.
- 4. In the **Default Gateway** box, type the IP address of the server that acts as an access point to another network. You can obtain the IP address of the default gateway by asking the network administrator.

Note

You do not need to use a gateway if the device communicates with other Edge devices on the same subnet.

- 5. In the **MTU** box, type largest protocol data unit that the layer can pass onwards.
- 6. In the **Web Server Port** box, type the http port number to use as an access point to the Internet. The default value is 80.

- 7. In the Ethernet Adapter 1 tab:
 - a. In the **Link Speed** list, select the speed and mode of the network:
 - **Auto detect**: The unit will automatically detect the network speed and mode.
 - **1 Gbps full duplex**: The unit sends and receives 1 Gbps of data in both directions at the same time.
 - **1 Gbps half duplex**: The unit sends and receives 1 Gbps of data in both directions, but not at the same time.
 - **100 Mbps full duplex**: The unit sends and receives 100 Mbps of data in both directions at the same time.
 - **100 Mbps half duplex**: The unit sends and receives 100 Mbps of data in both directions, but not at the same time.
 - **10 Mbps full duplex**: The unit sends and receives 10 Mbps of data in both directions at the same time.
 - **10 Mbps half duplex**: The unit sends and receives 10 Mbps of data in both directions, but not at the same time.

Note

If you are unsure of the network settings, select Auto detect to automatically detect the speed and mode of the network. You can also contact the network administrator to provide you with the correct settings.

- b. Click Use the following IP Address.
- c. In the **IP Address** box, type the device IP address.
- d. In the **Subnet Mask** box, type the address specifying the subnet in which the IP address belongs.
- e. In the **Gateway** box, type the IP address of the server that acts as an access point to another network.

Note

You do not need to use a gateway if the device communicates with other devices on the same subnet.

8. Click Apply.

Note

The **Ethernet Adapter 2** tab corresponds to LAN 2 on the S1808e, S1808e-A, S1816e, S1816e-A and S816e-SP encoders, and is used by support for debugging purposes. The S1816e-SR model does not have a second Ethernet port.

The default IP address of LAN 2 is set to 172.29.204.254 with subnet mask 255.255.255.252. Any computer connecting to the S1800e multiport encoders must use the following IP address 172.29.204.253.

Setting the Video Standard

The S1800e series device can run in one of two video standards (NTSC or PAL) and you can use different standards when deploying the devices across multiple sites. The two video standards settings are:

National Television Standards Committee (NTSC) is the standard that is used in most of the Americas, a number of South American countries, and some Asian countries, including Japan. NTSC uses the format of 525 picture lines and a 60Hz lighting frequency.

Phase Alternation by Line (PAL) is the standard in the United Kingdom, much of Western Europe, several South American countries, some Middle East and Asian countries, several African countries, Australia, New Zealand, and other Pacific island countries. PAL uses the format of 625 picture lines and a 50Hz lighting frequency.

Caution

You should change the video profile settings using a video management software.

► To set the video standard

- 1. Start the Web Interface.
- 2. From the tree, select **Configuration > Video**.

e the Video panel t e unit.	configure the	video standar	d and the treatm	ent of colors on						
WARNING										
Changing thes and affect the primary softwa	e parameters ca quality of the re ire to change vi	an cause a co cordings. Ne: ideo parameti	nflict with Nextiva xtiva Control Cen ers.	a Control Cente ter should be th	r					
/ideo Standard : N	rsc	 ✓ (rebo 	oot required)							
Encoder Properti	Inputs Pro	perties C	amera Tampering	Motion Det	ection					
Input	Encoder	Bit Rate	Frame Rate	Min Quantizer	Max Quantizer	Intra Interval	Rate Control Me	Quantizer Control Mode	Resolution *	Co
1	1	720 kbps	30 fps	14	24	32	CFR	Standard	2CIF	H26
2	1	720 kbps	30 fps	14	24	32	CFR	Standard	2CIF	H26
3	1	720 kbps	30 fps	14	24	32	CFR	Standard	2CIF	H2
4	1	720 kbps	30 fps	14	24	32	CFR	Standard	2CIF	H26
5	1	720 kbps	30 fps	14	24	32	CFR	Standard	2CIF	H26
6	1	720 kbps	30 fps	14	24	32	CFR	Standard	2CIF	H26
7	1	720 kbps	30 fps	14	24	32	CFR	Standard	2CIF	H28
8	1	720 kbps	30 fps	14	24	32	CFR	Standard	2CIF	H26
9	1	720 kbps	30 fps	14	24	32	CFR	Standard	2CIF	H28
10	1	720 kbps	30 fps	14	24	32	CFR	Standard	2CIF	H26
11	1	720 kbps	30 fps	14	24	32	CFR	Standard	2CIF	H26
12	1	720 kbps	30 fps	14	24	32	CFR	Standard	2CIF	H26
13	1	720 kbps	30 fps	14	24	32	CFR	Standard	2CIF	H26
14	1	720 kbps	30 fps	14	24	32	CFR	Standard	2CIF	H26
15	1	720 kbps	30 fps	14	24	32	CFR	Standard	2CIF	H26
16	1	720 kbps	30 fps	14	24	32	CFR	Standard	2CIF	H26
1	2	300 kbps	30 fps	14	24	32	CFR	Standard	CIF	H26
2	2	300 kbps	30 fps	14	24	32	CFR	Standard	CIF	H26

- 3. From the **Video standard** list, select the analog display standard of the region. You can select from the following:
 - NTSC
 - PAL

Note

Changing the video standard requires a reboot. A dialog box appears warning you of the changes to the video standard.

- 4. Click **Yes** to make the changes.
- 5. Click **Apply**.
- 6. Click **OK** to reboot the Edge device.

Configuring the Encoder Properties

For each video input, the S1800e series devices can send video with different sets of parameters to different locations. The single/dual port devices support quad-stream encoding with three streams using H.264 compression and one using MJPEG compression. The multiport devices support triple-stream encoding provides two streams using H.264 compression and one using MPEG4 compression. You can customize each device in terms of frame rate and resolution to meet each system requirements.

To configure the encoder properties

- 1. Start the Web Interface.
- 2. From the tree, select **Configuration > Video**.

e the Video panel to unit.	configure the	video standa	rd and the treatme	ent of colors on						
WARNING Changing these and affect the qu primary software	parameters ca iality of the re a to change vi iC	in cause a co cordings. Ne deo paramet	inflict with Nextiva xtiva Control Cent ers. pot required)	Control Cente ter should be th	r ie					
ncoder Properties	Inputs Pro	perties C	amera Tampering	Motion Det	ection					
Input	Encoder	Bit Rate	Frame Rate	Min Quantizer	Max Quantizer	Intra Interval	Rate Control M	Quantizer Control Mode	Resolution *	Co
1	1	720 kbps	30 fps	14	24	32	CFR	Standard	2CIF	H2C
2	1	720 kbps	30 fps	14	24	32	CFR	Standard	2CIF	H26
3	1	720 kbps	30 fps	14	24	32	CFR	Standard	2CIF	H26
4	1	720 kbps	30 fps	14	24	32	CFR	Standard	2CIF	H26
5	1	720 kbps	30 fps	14	24	32	CFR	Standard	2CIF	H26
6	1	720 kbps	30 fps	14	24	32	CFR	Standard	2CIF	H26
7	1	720 kbps	30 fps	14	24	32	CFR	Standard	2CIF	H26
8	1	720 kbps	30 fps	14	24	32	CFR	Standard	2CIF	H2(
9	1	720 kbps	30 fps	14	24	32	CFR	Standard	2CIF	H26
10	1	720 kbps	30 fps	14	24	32	CFR	Standard	2CIF	H2(
11	1	720 kbps	30 fps	14	24	32	CFR	Standard	2CIF	H26
12	1	720 kbps	30 fps	14	24	32	CFR	Standard	2CIF	H26
13	1	720 kbps	30 fps	14	24	32	CFR	Standard	2CIF	H26
14	1	720 kbps	30 fps	14	24	32	CFR	Standard	2CIF	H26
15	1	720 kbps	30 fps	14	24	32	CFR	Standard	2CIF	H26
16	1	720 kbps	30 fps	14	24	32	CFR	Standard	2CIF	H26
	2	300 kbps	30 fps	14	24	32	CFR	Standard	CIF	H26
1										

Apply Cancel

- 3. From the **Encoder Properties** tab, set the values for the following parameters:
 - **Bit Rate:** The rate in kbps at which the device sends data. Use a higher bit rate to record movements, noise and details. The bit rate can range from 9 kbps to 6000 kbps.
 - Frame Rate: The number of frames captured or recorded each seconds.
 - NTSC: select from: 1, 2, 3, 3.75, 5, 6, 7.5, 10, 15, or 30 fps.
 - PAL: select from: 1, 2.5, 5, 6.75, 8.33, 12.5, or 25 fps
 - Quantizer (Minimum and Maximum): The process of safely discarding information from a video without a significant loss in visual quality. Using a higher quantizer value decreases video quality and creates a smaller file size. Using a low quantizer value increases video quality and creates a larger file size. The available range is between 2 and 31.

Note

To maintain the video frame rate, you should set the maximum quantizer to 31. If the quality of each frame is more important, you should reduce the quantizer value; for example, a maximum quantizer of 5 keeps a good image quality, but skips frames when motion is high.

• **Intra Interval:** The frequency at which a complete video frame (Iframe) is sent by the device. The available values are in the 0 – 1000 range. Zero indicates that no I-frame will be sent automatically by the device.

- **Rate Control Mode:** The mode controlling the bit rate variation. The available modes are:
 - **Constant Bit Rate (CBR):** This mode is the most effective to maintain the target bit rate. Video quality may suffer (frames may be skipped) and the frame rate may decrease. This mode should be used when transmitting video over networks that have very limited bandwidths, and with an intra interval value of 0 (default).
 - **Constant Frame Rate (CFR):** This mode maintains the target frame rate. Video quality may suffer and the bit rate may exceed the target value.
- Quantizer Control Mode:
 - Standard:
 - High on Motion Area:
- **Resolution:** The total number of lines (width × height) in the video image. The greater the number of lines produces a more detailed, clearer and sharper image, but requires more bandwidth and storage. The following resolutions are available:
 - **CIF:** NTSC (352 × 240) and PAL (352 × 288)
 - 2CIF: NTSC (704 × 240) and PAL (704 × 288)
 - 4CIF: NTSC (704 × 480) and PAL (704 × 576)
 - **D1**: NTSC (720 × 486) and PAL (720 × 576)
- **Compression Mode:** This parameter cannot be changed. The compression mode column displays the method of encoding currently being used on the Edge device. For the multiport devices, encoders 1 and 2 are set to H.264 and encoder 3 is set to MPEG4. For the single/dual devices, encoders 1, 2 and 3 are set to H.264 and encoder 4 is set to MJPEG.

Note

For devices running analytics and the S1816e-SP and S1816e-SR models running in single or legacy mode, only two streams are available. In this case, Encoder 1 is set to H.264 and Encoder 2 is set to MPEG4.

- 4. Click Apply.
- 5. Click **OK**.

Video Profile

Video Profiles define both the quality of the video images and the storage and bandwidth requirements of the video files. All Video Profiles include at least the following settings: frame rate, resolution, and bit rate. For each video input, you can configure the image parameters. With each video input, the S1800e series devices supports up to quad-stream encoding (triple-stream encoding on the multiport devices and quad-stream encoding on the single/dual port devices). Encoding the video inputs provides multiple live-view streams using different sets of parameters providing high or low quality video for analysis and a single recording stream using H.264 video compression providing high quality video at a substantially lower bit rates than previous standards.

Note

Nextiva video management software currently supports a maximum of two streams and provide four video profiles for the S1800e series devices. For more information configuring video profiles, refer to the Nextiva VMS Administrator Guide.

Configuring the Encoder Properties

For each video input, the S1800e series devices can send video with different sets of parameters to different locations. The single/dual port devices support quad-stream encoding with three streams using H.264 compression and one using MJPEG compression. The multiport devices support triple-stream encoding provides two streams using H.264 compression and one using MPEG4 compression. You can customize each device in terms of frame rate and resolution to meet each system requirements.

To configure the encoder properties

- 1. Start the Web Interface.
- 2. From the tree, select **Configuration > Video**.

the Video panel to o unit.	onfigure the	video standar	d and the treatme	ent of colors on						
WARNING Changing these p and affect the qu primary software	arameters ca ality of the re to change vi	an cause a co cordings. Nex deo paramete	nflict with Nextiva tiva Control Cent ers.	Control Cente er should be th	e					
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Innut	Encoder	Bit Rate	Frame Rate	Min Quantizer	Max Quantizer	Intra Interval	Rate Control M	Quantizer Control Mode	Resolution *	Cod
1	1	720 kbns	30 fps	14	24	32	CER	Standard	2CIF	H2f
2	1	720 kbps	30 fps	14	24	32	CFR	Standard	2CIF	H26
3	1	720 kbps	30 fps	14	24	32	CFR	Standard	2CIF	H26
4	1	720 kbps	30 fps	14	24	32	CFR	Standard	2CIF	H26
5	1	720 kbps	30 fps	14	24	32	CFR	Standard	2CIF	H26
6	1	720 kbps	30 fps	14	24	32	CFR	Standard	2CIF	H26
7	1	720 kbps	30 fps	14	24	32	CFR	Standard	2CIF	H26
8	1	720 kbps	30 fps	14	24	32	CFR	Standard	2CIF	H2(
9	1	720 kbps	30 fps	14	24	32	CFR	Standard	2CIF	H26
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14	1	720 kbps	30 fps	14	24	32	CFR	Standard	2CIF	H26
15	1	720 kbps	30 fps	14	24	32	CFR	Standard	2CIF	H26
16	1	720 kbps	30 fps	14	24	32	CFR	Standard	2CIF	H26
	2	300 kbps	30 fps	14	24	32	CFR	Standard	CIF	H26
1										

Apply Cancel

- 3. From the **Encoder Properties** tab, set the values for the following parameters:
 - **Bit Rate:** The rate in kbps at which the device sends data. Use a higher bit rate to record movements, noise and details. The bit rate can range from 9 kbps to 6000 kbps.
 - Frame Rate: The number of frames captured or recorded each seconds.
 - NTSC: select from: 1, 2, 3, 3.75, 5, 6, 7.5, 10, 15, or 30 fps.
 - PAL: select from: 1, 2.5, 5, 6.75, 8.33, 12.5, or 25 fps
 - Quantizer (Minimum and Maximum): The process of safely discarding information from a video without a significant loss in visual quality. Using a higher quantizer value decreases video quality and creates a smaller file size. Using a low quantizer value increases video quality and creates a larger file size. The available range is between 2 and 31.

Note

To maintain the video frame rate, you should set the maximum quantizer to 31. If the quality of each frame is more important, you should reduce the quantizer value; for example, a maximum quantizer of 5 keeps a good image quality, but skips frames when motion is high.

• **Intra Interval:** The frequency at which a complete video frame (Iframe) is sent by the device. The available values are in the 0 – 1000 range. Zero indicates that no I-frame will be sent automatically by the device.

- **Rate Control Mode:** The mode controlling the bit rate variation. The available modes are:
 - **Constant Bit Rate (CBR):** This mode is the most effective to maintain the target bit rate. Video quality may suffer (frames may be skipped) and the frame rate may decrease. This mode should be used when transmitting video over networks that have very limited bandwidths, and with an intra interval value of 0 (default).
 - **Constant Frame Rate (CFR):** This mode maintains the target frame rate. Video quality may suffer and the bit rate may exceed the target value.
- Quantizer Control Mode:
 - Standard:
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- **Resolution:** The total number of lines (width × height) in the video image. The greater the number of lines produces a more detailed, clearer and sharper image, but requires more bandwidth and storage. The following resolutions are available:
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 - **D1**: NTSC (720 × 486) and PAL (720 × 576)
- **Compression Mode:** This parameter cannot be changed. The compression mode column displays the method of encoding currently being used on the Edge device. For the multiport devices, encoders 1 and 2 are set to H.264 and encoder 3 is set to MPEG4. For the single/dual devices, encoders 1, 2 and 3 are set to H.264 and encoder 4 is set to MJPEG.

Note

For devices running analytics and the S1816e-SP and S1816e-SR models running in single or legacy mode, only two streams are available. In this case, Encoder 1 is set to H.264 and Encoder 2 is set to MPEG4.

- 4. Click Apply.
- 5. Click **OK**.

Configuring the Input Properties

The number of video inputs varies depending on the device. For each video input, you can enhance the video image by adjusting the value of brightness, contrast, hue and saturation.

- To configure the input properties
 - 1. Start the Web Interface.
 - 2. From the tree, select **Configuration > Video**.

e the Video pane e unit.	el to con	figure the video sta	ndard and the t	treatment of colors on			
WARNING Changing th and affect t primary sof	nese par he quali tware to	ameters can cause ty of the recordings change video para	a conflict with f . Nextiva Contr meters.	Nextiva Control Center ol Center should be the			
/ideo Standard :	NTSC	~ (reboot required	d)			
Encoder Proper	ties I	nputs Properties	Camera Tam	pering Motion Detec	tion		
	Inpu	t	AGC	Brightness	Contrast	Hue	Saturation
		1	255	0	0	0	
		2	255	0	0	0	
		3	255	0	0	0	
		4	255	0	0	0	
		5	0	0	0	0	
		6	0	0	0	0	
		7	0	0	0	0	
		8	0	0	0	0	
		9	0	0	0	0	
	1	0	0	0	0	0	
	1	1	0	0	0	0	
	1	2	0	0	0	0	
	1	3	0	0	0	0	
	1	4	0	0	0	0	
	1	5	0	0	0	0	
					0	0	

- 3. From the **Input Properties** tab, you can set the values for the following for each video input:
 - **AGC:** (Automatic Gain Control) This parameter cannot be changed. Automatic gain control (AGC) bring the video signal up to the standard 1Vpp required level to produce quality picture.
 - **Brightness:** Changing the brightness level allows you to increase or decrease highlights and shadows, making them darker or lighter. The values range from -128 to 127.
 - **Contrast:** This refers to the difference between the lightest and darkest parts of the image. The values range from -128 to 127
 - **Hue:** This refers to the color classification given to the image based on the colors found in the color spectrum. The values range from -128 to 127.
 - **Saturation:** This refers to the intensity of the colors in the image. The values range from -128 to 127.
- 4. Click Apply.

Configuring the Camera Tampering Properties

The camera tampering feature is a real-time automated feature that generates an alarm whenever the camera is repositioned or out of focus.

Note

If you plan on using Nextiva VMS with the single/dual port encoders, you cannot set an area of interest as described in the Nextiva Administrator Guide.

To configure the camera tampering properties

- 1. Start the Web Interface.
- 2. From the tree, select **Configuration > Video**.

deo Standard : NT: Encoder Properties	SC Inputs Properties	 (reboot required) Camera Tampering 	Motion Detection			
	nput Out Of Focus		OF Sensitivity	OOF Current Level	Refresh Rate	Persistenc
	1 Off		26	100	0.1 fns	T GI GI GI GI GI
	2 Off		26	100	0.1 fps	
	3 Off		26	100	0.1 fps	
	4 Off		26	100	0.1 fps	
	5 Off		26	100	0.1 fps	
	6 Off		26	100	0.1 fps	
	7 Off		26	100	0.1 fps	
	8 Off		26	100	0.1 fps	
	9 Off		26	100	0.1 fps	
	10 Off		26	100	0.1 fps	
	11 Off		26	100	0.1 fps	
	12 Off		26	100	0.1 fps	
	13 Off		26	100	0.1 fps	
	14 Off		26	100	0.1 fps	
	15 Off		26	100	0.1 fps	
	16 Off		26	100	0.1 fps	

- 3. From the **Camera Tampering** tab, you can set the values of the following parameters for each video input:
 - Out of Focus: Enable or disable the Out of Focus feature.
 - **OOF Sensitivity:** Set the sensitivity level from 1 (most sensitive) to 100 (no sensitive).
 - Refresh Rate: Set the refresh rate in frames per seconds.
 - **Persistence:** The number of analyzed frames that must be detected as tampered to trigger an alarm. The values range from 1 to 1000. Increasing the persistence level can reduce the number of false alarms.
- 4. Click Apply.

Configuring the Motion Detection Properties

The S1800e encoders support motion detection on each video input. For each video input, you can configure the motion detection settings by adjusting the values for each input.

Caution

You must have a good understanding of video technology to use these settings. If you are unsure do not modify these settings.

To configure the motion detection properties

- 1. Start the Web Interface.
- 2. From the tree, select **Configuration > Video**.

e the Video panel e unit.	to config	ure the video star	idard and the treatme	ent of colors on					
WARNING Changing the and affect the primary softw	se paran e quality vare to ch	neters can cause a of the recordings. hange video parar	a conflict with Nextiva Nextiva Control Cen neters.	Control Center ter should be the					
ideo Standard : 🖡	VTSC	~ (r	eboot required)						
Encoder Propertie	es In	puts Properties	Camera Tampering	Motion Detection					
Input	State	Mask St	ate Mask	Upper Thresh	Lower Thresh	Num Motion Block	Vector Length	Number of frame	Alarm State
1	Off	Off		4	1	0	8	1	No motion
2	Off	Off		4	1	0	8	1	No motion
3	Off	Off		4	1	0	8	1	No motion
4	Off	Off		4	1	0	8	1	No motion
5	Off	Off		4	1	0	8	1	No motion
6	Off	Off		4	1	0	8	1	No motion
7	Off	Off		4	1	0	8	1	No motion
8	Off	Off		4	1	0	8	1	No motion
9	Off	Off		4	1	0	8	1	No motion
10	Off	Off		4	1	0	8	1	No motion
11	Off	Off		4	1	0	8	1	No motion
12	Off	Off		4	1	0	8	1	No motion
13	Off	Off		4	1	0	8	1	No motion
14	Off	Off		4	1	0	8	1	No motion
15	Off	Off		4	1	0	8	1	No motion
	Off	Off		4	1	0	8	1	No motion

Apply Cancel

- From the Motion Detection tab, you can set the values of the following parameters for each video input:
 - State: Enable or disable motion detection on the video input.
 - **Mask State:** Enable or disable the use of the mask for motion detection. If disabled, all macroblocks in the frame are checked for motion.
 - **Mask:** Type the numerical string to specify which macroblocks that will be analyzed for motion. An empty string indicates that all macroblocks in the frame is checked.
 - **Upper Thresh:** The minimum number of macroblocks with motion in a frame to start an alert. This value must be greater than or equal to Lower Thresh. The values range from 1 to 1320 (NTSC) or 1 to 1548 (PAL).
 - **Lower Thresh:** The maximum number of macroblocks with motion in a frame to stop an alert. This value must be less than or equal to Upper

Thresh. The values range from 1 to 1320 (NTSC) or 1 to 1548 (PAL).

- **Vector Length:** The amount of motion in a given macroblocks that must be present to tag this as in motion. The values range from 0 to 255.
- **Number of Frames:** The number of consecutive frames that must be detected as a new motion. The values range from 1 to 1000.
- 4. Click Apply.

Configuring the Decoder Properties

The S1800e series compact decoders support four to six H.264 video streams, displaying up to four tiles on traditional CCTV monitors and up to six tiles on high-definition LCD or plasma monitors.

To confgure the decoder properties

- 1. Start the Web Interface.
- 2. From the tree, select **Configuration > Video**.

deo				
e the Video panel to c 9 unit.	onfigure the video standa	ird and the tr	eatment of colors on	
WARNING Changing these p and affect the qu primary software	parameters can cause a c ality of the recordings. Ne to change video parame	onflict with Nextiva Contro ters.	extiva Control Center I Center should be the]
ecoder Properties	Outputs Properties			
	Output	Decoder	Deinterlacing Mode	Supported Resolution
	1	1	Disabled	CIF,4CIF,2CIF,D1,UXGA,720p60,1080i60,720p50,1080i50
	1	2	Disabled	CIF,4CIF,2CIF,D1
	1	3	Disabled	CIF,4CIF,2CIF,D1
	1	4	Disabled	CIF,4CIF,2CIF,D1

- 3. From the **Decoder Properties** tab, set the values for the following parameters for each output:
 - **Deinterlacing Mode**: Deinterlacing is the process taking a stream of interlaced frames and converting it to a stream of progressive frames. Select one of the following:
 - Enabled
 - Disabled
- 4. Click Apply.

Configuring the Video Output Properties

The S1800e decoders support four to six H.264 video streams, displaying up to four tiles on traditional CCTV monitors and up to six tiles on high-definition LCD or plasma monitors.

- To configure the video output properties
 - 1. Start the Web Interface.
 - 2. From the tree, select **Configuration > Video**.

deo					
e the Video panel to o a unit.	configure the v	ideo standard and the I	treatment of colors on		
Changing these of the set of the	parameters can vality of the rec a to change vid	n cause a conflict with I cordings. Nextiva Contr eo parameters.	Nextiva Control Center ol Center should be the		
Decoder Properties	Outputs Pro	perties			
	Output	Resolution	Discovery Mode	Receiver Mode	Dwell Time
	1	720p60	Legacy	Quad	

- 3. From the Output Properties tab, set the output values.
 - (Only on HDMI model) **Resolution**: The number of pixels that you can display on the monitor. Select from the following:
 - 1080i60
 - 1080i50
 - 720p60
 - 720p50
 - 480p60
 - 576p50
 - 640 × 480p60
 - **Discovery Mode**: How the unit is represented through VSIP. Select from the following:
 - Normal: 1 physical output, 4 decoders
 - Legacy: 4 physical outputs, 1 decoder per output
 - **Receiver Mode**: The number of tiles to display on the monitor. Select from the following:

- **Single**: Video from one stream is displayed on the monitor.
- **Quad**: The monitor is divided into four quadrants and each displaying video from four different streams.
- **3** × **2**: (Only on HDMI model) The monitor displays video from six different streams.
- **Guard Tour**: Video from each stream is displayed on the monitor one after another.
- **Dwell Time**: The number of seconds to display video from a selected camera before switching to the next camera in the tour.
- 4. Click **Apply**.

Setting the SNMP Properties

Simple Network Management Protocol (SNMP) is a protocol used by network management systems to manage network equipments from a central location. The S1800e devices are SNMP-compliant and store data about themselves in Management Information Bases (MIBs) and return this data (SNMP Traps) to the SNMP requesters.

To set the SNMP properties

- 1. Start the Web Interface.
- 2. From the tree, select **Configuration > SNMP**.

e the SNMP panel to configure the Simple Ne rameters in order to allow an administrative	twork Management Protoc computer to manage the u
✓ Enabled	
General SNMP Configuration :	
System Location :	Head Office
System Contact :	support@verint.com
Primary Trap Destination Address :	129.168.24.12
Backup Trap Destination Address :	129.168.24.68
ead-only SNMPv1 & SNMPv2c Configuration	:
Community Name :	public
tead-only SNMPv3 Configuration :	
User Name :	jdoe
User Authentication Type :	MD5 Authentication
User Authentication Password :	as24dE4g
User Privacy Protocol :	AES Encryption 🗸
User Privacy Password :	se34vd4g6
Download Verint SNMP MIBs]	

- 3. In the **SNMP** panel, select the **Enabled** check box enable the SNMP service.
- 4. In the **System Location** box, type the location for the Edge device.
- 5. In the **System Contact** box, type the e-mail address of the network administrator.
- 6. In the **Primary Trap Destination Address** box, type the IP address of the primary server that will receive the SNMP Traps.
- In the Backup Trap Destination Address box, type the IP address of the backup server that will receive the SNMP Traps in case the primary server is unavailable.
- 8. In the **Community Name** box, type the name of the group where you want the edge device to be a member.

Note

The Edge device will only respond to requests from management servers that belong to the same community.

9. In the **User Name** box, type the name of the SNMP user.

- 10. In the **User Authentication Type** list, select the authentication algorithm for SNMP requests. You can select from the following:
 - No Authentication: No authentication is used.
 - **MD5 Authentication:** The Message Digest Version 5 (MD5) hash function is used to determine that the message is from a valid source.
 - **SHA Authentication:** The Secure Hash Algorithm (SHA) has function is used to determine that the message is from a valid source.
- 11. In the **User Authentication Password** box, type a password for the user.
- 12. In the **User Privacy Protocol** list, select the privacy protocol to encrypt the contents of the data. You can select from the following:
 - **No Encryption:** No encryption is used.
 - **DES Encryption:** The Data Encryption Standard (DES) algorithm is used to encrypt the data.
 - **AES Encryption:** The Advanced Encryption Standard (AES) algorithm is used to encrypt the data.
- 13. In the **User Privacy Password** box, type a password for the privacy protocol.
- 14. Click Apply.

Viewing MIB Information

You can download the device Management Information Base (MIB) and use a SNMP application to view the information. The MIB is a collection of manageable entities of the device network element.

The S1800e series device sends a coldStart trap when it is initialized and sends the following Verint-Specific SNMP traps:

- Video Signal Loss edVinMediaStateAnalogNotif trap. This trap is generated if an analog video input of an S1800e series device is disconnected or reconnected with the following information:
 - Input number (1 to 16 for S1816e and S1816e-SP, 1 to 8 for S1808e)
 - New state (0: not connected, 1: connected)
- Dry Input State Change edDigitalinPinStateNotif trap. This trap is generated if the status of a digital alarm dry contact input of the S1800e device has changed with the following information:
 - Input number (1 to 16 for S1816e and S1816e-SP, 1 to 8 for S1808e)
 - New state (0: not connected, 1: connected)

- edVinCamtampOofAlarmStateNotif trap. This trap is generated if the Out Of Focus status of an input has changed with the following information:
 - [0x00] = Not Out Of Focus
 - [0x01]= Out Of Focus
- To view MIB information
 - 1. Start the Web Interface.
 - 2. From the tree, select **Configuration > SNMP**.

se the SNMP panel to configure the Simple arameters in order to allow an administrati	Network Management Protocol (SNM) ive computer to manage the unit.
Enabled	
General SNMP Configuration :	
System Location :	Head Office
System Contact :	support@verint.com
Primary Trap Destination Address :	129.168.24.12
Backup Trap Destination Address :	129.168.24.68
Read-only SNMPv1 & SNMPv2c Configurati	on :
Community Name :	public
Read-only SNMPv3 Configuration :	
User Name :	jdoe
User Authentication Type :	MD5 Authentication
User Authentication Password :	as24dE4g
User Privacy Protocol :	AES Encryption 🗸
User Privacy Password :	se34vd4g6
[Download Verint SNMP MIBs]	

3. Click Download Verint SNMP MIBs.

Viewing Live Video

The **Live Media** section lists all the video inputs that are available on the device. You can click $play(\bigcirc)$ beside the video input to view media in a new dialog box. Other icons indicate the streaming status ($\heartsuit \ \bigcirc \ \bigcirc$), recording status (\bigcirc) and camera tampering status (\bigcirc).

The video quality of the streaming video from encoder 1 is determined by the settings in the **Encoder Properties** tab in the **Video** panel.

To view live video

- 1. Start the Web Interface.
- 2. From the tree, select **Clip Retrieval**.
- 3. From the **Live Media** section, click play 🜔 beside a video input to display the video in the **Live Media** dialog box.



- 4. Click **PTZ** to display the PTZ Controller.
- 5. Use the following to control the PTZ camera:
 - Pan right: right arrow or keypad 6
 - Pan left: left arrow or keypad 4
 - Tilt up: up arrow or keypad 8
 - Tilt down: down arrow or keypad 2
 - Pan right and tilt up: keypad 9
 - Pan right and tilt down: keypad 3
 - Pan left and tilt up: keypad 7
 - Pan left and tilt down: keypad 1
 - Telescopic Zoom: or T key
 - Wide Zoom: + or W key
 - Focus near: N key
 - Focus far: F key
 - Open the Iris: O key
 - Close the Iris: C key

The PTZ menu allows you to perform the following:

- **Menu**: Displays the on-screen menu. For more information on the PTZ onscreen menu.
- **Help**: Displays the PTZ Control Usage.

Use the following to control the PTZ camera:

- Pan right: right arrow or keypad 6
- Pan left: left arrow or keypad 4
- Tilt up: up arrow or keypad 8
- Tilt down: down arrow or keypad 2
- Pan right and tilt up: keypad 9
- Pan right and tilt down: keypad 3
- Pan left and tilt up: keypad 7
- Pan left and tilt down: keypad 1
- Telescopic Zoom: or T key
- Wide Zoom: + or W key
- Focus near: N key
- Focus far: F key
- Open the Iris: O key
- Close the Iris: C key

Note

In the **Live Media** dialog box, click **INFO** to display Frame Rate and resolution information in the top right corner.

Configuring PTZ Address

The PTZ Configuration panel allows you to change the PTZ address value for the PTZ Cameras to match the value of the dip switch in order to control the PTZ Camera from the Web Interface.

► To configurePTZ address

- 1. Start the Web Interface.
- 2. From the tree, select **Configuration > PTZ**.

TZ Configuration				
Use the PTZ Configuration p can control the camera direc	anel to configure the motorized camera prop ctly from the video live window.	perties. You		
Input	PTZ Address			
1	1	<u>*</u>		
2	1			
3	1			
4	1			
5	1			
6	1			
7	1			
8	1			
9	1			
10	1	-		

Apply	Cancel

- 3. Double-click the value in the PTZ Address column and change the value to match the dip switch value on the camera.
- 4. Click Apply.

Chapter

4

Configuring the Nextiva S5500 PTZ Series Properties

Once the camera is installed and the network settings configured, you need to configure the camera properties using the On-screen Display (OSD) menu. The following topics are discussed:

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Freeze Activity	91
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Configuring the Nextiva S5500 PTZ Series

Once the camera is installed, you need to configure the camera properties using the On-screen Display (OSD) menu.

Activating the OSD Menu

There are multiple ways to access the OSD menu:

- 1. **Nextiva Virtual Matrix:** In this setup, external components such as analog or digital monitors and CCTV keyboards are connected to Nextiva via an edge device. Using Nextiva Control Center, you can configure external CCTV or HD monitors and CCTV keyboards to control and display views from PTZ cameras as needed. Either Nextiva Review or the CCTV keyboard can control the PTZ cameras independently.
- 2. **Analog Matrix Device:** In this setup, the CCTV keyboard is connected directly to a rack-mounted matrix device (hardwired). You can use the external keyboard to control PTZ cameras and display the video on analog monitors, but the external keyboards and analog monitors are not integrated with the Nextiva system. Therefore, camera tours, salvos, and other PTZ camera operation features that must be set up through Nextiva Control Center are not available.
- 3. **Nextiva Review:** control PTZ cameras through the Nextiva Review application.
- To display the OSD menu from Nextiva Review:
 - 1. In the application tabs, click **Live**
 - 2. In the left pane, click ⁹ Pan/tilt/zoom (PTZ) camera
 - 3. From the PTZ toolbar, click the camera menu
- To activate the OSD menu using a keypad:
 - 1. For keypad controllers that are compatible with Pelco D, press the number keys "95" and then press and hold the "PRESET" key for two seconds to activate the OSD menu.

Note

Different keypad controller may use different commands to activate the OSD menu may differ with the connected keypad controller.

Using Nextiva Review to Configure the Nextiva S5500 PTZ Series

Nextiva Review supports pan/tilt/zoom (PTZ) functionality for live video when a PTZ camera is selected in Live mode. You can control PTZ cameras through Review by using the Heads Up Display (HUD) control panel and the PTZ toolbar. The PTZ toolbar contains the buttons used to control a PTZ camera in the Review workspace.

Note

If external CCTV keyboards are installed, they can also be used to control PTZ cameras. In this case, you might see the camera move around in Review without providing any input through the Review interface.

To display the PTZ toolbar

1. In the application tabs, click Live



- 2. In the left pane, navigate to the PTZ camera you want to access.
 - O Pan/tilt/zoom (PTZ) camera
 - One of the second s
- 3. Display live video from the camera using one of these methods:
 - Drag the required camera from the camera tree into a tile in the workspace. The video opens in the selected tile and starts playing live video images.
 - Double-click the camera name in the camera tree. The video opens and starts playing in the next available tile. If all video tiles are full, the newly selected camera replaces the item in the currently active tile.
- 4. Click the video tile for the PTZ camera to display the PTZ toolbar.

Note

If your user account does not have privileges to control PTZ cameras, the PTZ toolbar does not appear. You can use the controls on the regular video tile toolbar as if the camera was a fixed (non-PTZ) camera.

5. The PTZ toolbar opens to the right of the regular video toolbar, and the Heads Up Display (HUD) control panel appears over the video image.



6. The PTZ toolbar contains the following controls:

PTZ Control	Button	Description
PTZ Locked or PTZ Unlocked	٢	Locks or unlocks the PTZ camera so an operator can take exclusive control of its pan/tilt/zoom operations.
Camera Menu	Ę	Displays the PTZ camera adaptor menu for cameras that support the Menu command
PTZ Focus	+ 🔶 -	Brings parts of a video image in or out of focus
PTZ Iris	+ 🏶 -	Increases or decreases the amount of light the camera lets in (brightens or darkens the image)
PTZ Presets	<u> </u>	Displays any preset views configured on the camera, and is used to add or remove presets
PTZ Patterns	à.	Displays any movement patterns configured for the camera, and is used to edit or remove camera patterns
Record Pattern	REC	Starts recording a camera pattern
Auxiliary	¢	Enables or disables (turns on or off) auxiliary controls on PTZ cameras, if supported by the PTZ camera

Using the Nextiva S5500 PTZ Series Menu Options

The following table lists all the available menu options on the Nextiva S5500 PTZ Series.

Mai- n men- u	Sub- menu- 1	Sub- menu- 2	Contents	Factory default
CAM-		MODE	MANUAL/AUTO/INTERVAL/ZOOMTRIGGER	AUTO
ERA SET- UP		ACTIV- E TIME	1~60S	5S
		INTE RVAL TIME	1~60S	5S
		SEN- SITI VITY	LOW/NORMAL	NORMAL
		FOCUS	ATW/AUTO/ONEPUSHWB	ATW
			FULLAUTO/SHUTTERPRIORITY	FULLAUTO
			ON/OFF	OFF
			PAL:1/1~1/10, 00022STEPS;NTSC:1/1~1/10,00022STEPS	P AL:1/50;NT- SC:1/60
		WB	-7~+7	0

Mai- n men- u	Sub- menu- 1	Sub- menu- 2	Contents	Factory default
		AE	ON/OFF/WDR	OFF
			AUTO/MANUAL	AUTO
			ON/OFF	OFF
	ZOOM LIMIT		X26/X52/X104/X208/X312/X432	X26
	ZOOM SPEED		EXT,0~7	5
	SHARP- NESS		0~15	10
	LINE		ON/OFF	OFF
	LOCK	LINEP- HASE	40~250°	180°
	PRI VACY ZONE		P1~P24:0N/0FF	OFF
	ALARM ACTIO- NS	INPUT- NO	0~255,BW,OFF	OFF
		MOTIO- N	0~255,BW,OFF,PATH	OFF
		DEL A YTIME	5~120S	5
P AN/- TILT SET- UP	AU T OFLIP		ON/OFF	ON
	PROPO R TIONA- L P/T		ON/OFF	ON
	SCAN LIMIT STOPS		ON/OFF	OFF
	MAN- UAL LIMIT		ON/OFF	OFF

Mai- n men- u	Sub- menu- 1	Sub- menu- 2	Contents	Factory default
	STOPS			
	RECOV- ER TIME		OFF,1~120MIN	OFF
	SCAN SPEED		1~90°/S	5°/S
	STOP TIME		P0~255:5~120S	10S
	MAX SPEED		1~430°/S	430°/S
	GROU- P		1~4	1
CAM- ERA TITL- E	CAM- ERA TITLE INPUT		20CHARACTERS(MAX)	
	CAM- ERA TITLE		ON/OFF	OFF
PRE- SET SET-	AUTO PA TROL		P0~255:ON/OFF	OFF
UP	PRE- SET SPEED		P0~430:MAX	МАХ
	TITLE	PRE- SET TITLE INPUT	256POSITION, 20CHARACTERS(MAX)	
		TITLE POSI TION	UP/DOWN	UP
	PRE- SET WD		P0~66:OFF/BLC/WDR	OFF
	PRE-	PRE-	P0~10:ON,OFF	P0,OFF

Mai- n men- u	Sub- menu- 1	Sub- menu- 2	Contents	Factory default
	SET MOTIO- N	SET MOTIO- N		
		MOTIO- N AREA	1~4MinandMAX	
		LEVEL	HI,MID,LOW	LOW
		INTE RVAL TIME	0~255s	OS
OTH- ERS	FREEZ- E ACTIV- ITY		ON/OFF	OFF
	SCANT- ILT ANGLE		0~92°	30
	SCHED- ULE	WEEK	Sun./Mon/Tue/Wed/Thr/Fri/Sat	Mon.
		ENA- BLE	ON/OFF	OFF
		START	00:00~23:59	00
		END	00:00~23:59	00
		ACTIO- N	NA,AS,FS,RS,AP1~4,Preset(0~32)	AS
	MOTIO- N DETEC- TION	MOTIO- N	ON/OFF	OFF
		MOTIO- N AREA	1~4MinandMAX	
		LEVEL	HI,MID,LOW	LOW
		INTE RVAL TIME	0~255s	0S
SY STE-	WEEK		Sun/Mon/Tues/Wed/Thur/Fri/Sat/Sun	Thur.
Mai- n men- u	Sub- menu- 1	Sub- menu- 2	Contents	Factory default
------------------------	--	-------------------------------------	---	-----------------------------
М	TIME		00:00~23:59	
	P AS S WORD	P AS S WORD ENA- BLE	ON/OFF	OFF
		P ASS WORD	20CHARACTERSMAX	********* <u>-</u> *****
	PO W ERUP		PARK, BYDEFAULT, AUTOSCAN, FRAMESCAN, RANDOMSCAN,	BYDEFAULT
			AUTOPARTOL	
	LOAD F AC TORY DE FAULT			
	E-FLIP		ON/OFF	OFF
	MIR- ROR		ON/OFF	OFF
	LAN- GUAG- E		NTSC: English/Traditional Chi- nese/Span- ish/Portuguese/Japanese/French PAL:	ENGLISH
			Eng- lish/Span- ish/Portuguese/French/German/Polish/Ital	ian/Russian
	ACTIO-		AUTORETURN/PARK	AUTO
	N			RETURN

Using the Horizontal Pan and Vertical Tilt

Manual horizontal pan must be controlled through the joystick on the keypad controller. The rotation speed is adjustable between $0.1^{\circ} \sim 90^{\circ}$ /sec by the position of the joystick, and up to

150°/sec under Turbo mode. The speed is restricted when using Proportion P/T mode.

Manual vertical tilt speed is adjustable between $0.1^{\circ} \sim 45^{\circ}$ /sec, and the speed will be restricted when under Proportion P/T mode.

Horizontal pan range	360° continuous rotation
Vertical tilt range	92°
Manual horizontal pan speed	0.1°~90°/s
Manual horizontal pan speed (Turbo mode, Pelco P/Messoa-P only)	150°/s
Manual vertical tilt speed	0.1°~45°/s
Preset maximum rotation speed	Horizontal:430°/s
	Vertical:200°/s

Note

In an indoor environment, the maximum tilt angle is 85° degree and maximum 92° for an outdoor environment.

Using the Scanning Mode

Auto Scan:

Auto scan can be configured to run at startup, or can be controlled by the keypad controller.

(a). When the scan range has not been set:

The camera will rotate horizontally until a command from the keypad controller is received (e.g. horizontal rotate, vertical rotate, IRIS, and focus etc.)

(b). When the san range has been set:

The camera will rotate horizontally in the scan range until a command from the keypad controller is received (e.g. horizontal rotate, vertical rotate, iris, and focus etc.) For configuring the scan range, please use the menu command <PAN/TILT SETUP> SCAN LIMIT STOPS.

(c). Lens zoom:

During startup, the lens will zoom out and auto scanning will remain at the original zoom level.

(d). Tilt angle:

During startup, the camera will perform vertical scanning from the tilt angle setting. For configuring the tilt angle, please use the menu command <OTHERS> SCAN TILT ANGLE. When the keypad controller issues autoscanning command, the tilt angle will remain at the original setting.

Frame Scanning:

Frame scanning can be configured to run at startup, or can be controlled by the keypad controller (refer to the table in Chapter 8). Configuring the zoom level and tilt angle is the same as in auto scanning.

(a). When the scan range has not been set:

The camera will scan at 45° increments until a command from the keypad controller is received (e.g. horizontal rotate, vertical rotate, iris, and focus etc.) Please refer to the diagram below.

Random Scanning:

Random scanning can be configure to run at startup, or can be controlled by the keypad controller. Configuring the zoom level and tilt angle is same as in auto scanning.

(a). When the scan range has been set: (figure.1)

The camera will randomly pick a stop point and perform scanning until a command from the keypad controller is received (e.g. horizontal rotate, vertical rotate, iris, and focus etc.) Please refer to the diagram below.

(b). When the scan range has been set: (figure.2)

The camera will randomly pick a stop point and perform scanning in the scan range until a command from the keypad controller is received (e.g. horizontal rotate, vertical rotate, iris, and focus etc.)

Note

Use the menu command <PAN/TILT SETUP> STOP TIME (P0) to configure the stop time, range from 5 sec to 120 sec.

Setting Up the Camera

The following section provides information on setting up the camera.

Setting the Focus

<CAMERA SETUP> \rightarrow <FOCUS> \rightarrow Mode

Use the [NEAR] or [FAR] keys to control the Focus.

- One push auto focus feature.
- Four focus modes to choose from: Manual, Auto, Interval, and Zoom.
- Under manual focus, use the [NEAR] and [FAR] keys to control the Focus.
- Under auto focus mode, press the [NEAR] or [FAR] keys to switch to manual focus mode until the commands for lens zoom, horizontal, and vertical rotate button control signals are received.
- Under interval mode, the camera will switch between auto focus and manual focus modes according to the Active time and Interval time settings: Active Time (auto) → Interval Time (manual) → Active Time (auto) → Interval Time (manual). 5
- Interval and Active time settings range between 0 and 255 seconds.
- Under Zoom trigger mode, the camera will remain under manual focus mode until the control signals for [ZOOM IN] or [ZOOM OUT] are received from the keypad. After the action is carried out, the camera will return to manual focus mode.
- Auto focus sensitivity can be set to Normal or Low.
- To set the focus setting:
 - 1. Press "95" + hold the [PRESET] key for 2 seconds to enter the main menu screen.
 - 2. Move the cursor to <CAMERA SETUP>, and then press the [OPEN] key to enter <CAMERA SETUP> menu.
 - 3. Move the cursor to <FOCUS>, and then press the [OPEN] key to enter <FOCUS> menu.
 - 4. Move the cursor to <MODE>, and then press the [OPEN] key to enter mode selection menu.
 - 5. Move the joystick up and down to choose the function to use.
 - 6. Press the [OPEN] key to confirm, or press [CLOSE] to cancel selection and exit from the menu screen.

Setting the White Balance

<CAMERA SETUP> → WB

Provides three modes of white balance:

- ATW: White balance range from 2000°K to 10000°K.
- AUTO: White balance range from 3000°K to 7500°K.
- ONE PUSH WB: Use the hotkey combination (number "73"+ [PRESET] key) to activate ONE PUSH white balance (ONE PUSH WB mode has to be enabled).

► To set the white balance:

- 1. Press "95" + hold the [PRESET] key for 2 seconds to enter the main menu screen.
- 2. Move the cursor to <CAMERA SETUP>, and then press the [OPEN] key to enter <CAMERA SETUP> menu.
- 3. Move the cursor to WB, and then press the [OPEN] key to enter WB mode selection.
- 4. Move the joystick up/down to make the selection.
- 5. Press the [OPEN] key to confirm the selection or press the [CLOSE] key to cancel selection and exit from the menu screen.

Setting the Auto Exposure (AE)

<CAMERA SETUP $> \rightarrow <$ AE>

- The aperture can be directly controlled by the [OPEN] or [CLOSE] keys.
- AE mode: FULL AUTO / SHUTTER PRIORITY.
 - Under FULL AUTO mode, the shutter speed is set at 1/60 sec (NTSC) or 1/50 sec (PAL) and the camera will automatically adjust the aperture according to the amount of outside light.
 - Under FULL AUTO mode, the aperture can be manually controlled; but once the zoom or horizontal pan/vertical tilt command is received, the camera will return to FULL AUTO mode.
 - Under SHUTTER PRIORITY mode, the shutter speed ranges between 1/1 \sim 1/10,000 seconds, with 22 steps.
- AUTO SLOW SHUTTER can be either ON or OFF.
- AE COMPENSATION can range between -7 to +7.
- BACK LIGHT COMP can be either ON or OFF, or directly controlled by the keypad (number "71"+ [PRESET] key = ON; number "72"+ [PRESET] key = OFF)

- DAY/NIGHT mode can be either automatic or manual. To improve nighttime sensitivity, the infrared filter in the camera lens can be removed. When set to auto mode, the camera will automatically adjust according to the environment brightness; under manual mode, directly press the keys number "88"+ [PRESET] key = Daytime color mode; number "89"+ [PRESET] key = Nighttime monochrome mode.
- FLICKERLESS: ON or OFF.

Note

BLC function is selectable: ON/OFF, or refer to hotkey operation. For dome with WDR, the selection for BLC function would be: ON/OFF/WDR (For WDR model only).

To set the auto exposure:

- 1. Press "95" + hold the [PRESET] key for 2 seconds to enter the main menu screen.
- 2. Move the cursor to <CAMERA SETUP>, and then press the [OPEN] key <CAMERA SETUP> menu.
- 3. Move the cursor to AE, and then press the [OPEN] key to enter AE mode selection.
- 4. Move the cursor to the selection and then press the [OPEN] key.
- 5. Move the joystick up/down to choose the selection.
- 6. Press the [OPEN] key to confirm the selection or press the [CLOSE] key to cancel selection and exit from the menu screen.

Setting the Zoom Limit

<CAMERA SETUP> → ZOOM LIMIT

- Directly set as wide or tele mode.
- Zoom levels: up to X36.
- Max optical zoom level is X36, digital zoom level starts from X72 to X432.

Note

The actually zoom level depends on different model.

To adjust the Zoom Limit:

- 1. Press "95" + hold the [PRESET] key for 2 seconds to enter the main menu screen.
- 2. Move the cursor to <CAMERA SETUP>, and then press the [OPEN] key <CAMERA SETUP> menu.
- 3. Move the cursor to ZOOM LIMIT, and then press the [OPEN] key zoom level selection.

- 4. Move the joystick up/down to choose the zoom level selection.
- 5. Press the [OPEN] key to confirm the selection or press the [CLOSE] key to cancel selection and exit from the menu screen.

Setting the Zoom Speed

There are nine steps of zoom speed for the lens $0 \sim 7$ that can be selected from the menu. When set to EXT mode, the command has to be issued through the RS485 interface.

- To adjust the zoom Speed:
 - 1. Press "95" + hold the [PRESET] key for 2 seconds to enter the main menu screen.
 - 2. Move the cursor to <CAMERA SETUP>, and then press the [OPEN] key <CAMERA SETUP> menu.
 - 3. Move the cursor to ZOOM SPEED, and then press the [OPEN] key zoom speed selection.
 - 4. Move the joystick up/down to choose the zoom speed selection.
 - 5. Press the [OPEN] key to confirm the selection or press the [CLOSE] key to cancel selection and exit from the menu screen.

Setting the Sharpness

<CAMERA SETUP> → SHARPNESS

- Sharpness control ranges from 0 to 15 (15 is the sharpest).
- To set the sharpness:
 - 1. Press "95" + hold the [PRESET] key for 2 seconds to enter the main menu screen.
 - Move the cursor to <CAMERA SETUP>, and then press the [OPEN] key <CAMERA SETUP> menu.
 - 3. Move the cursor to SHARPNESS, and then press the [OPEN] key sharpness selection.
 - 4. Move the joystick up/down to choose the appropriate sharpness selection.
 - 5. Press the [OPEN] key to confirm the selection or press the [CLOSE] key to cancel selection and exit from the menu screen.

Setting the Line Lock

<CAMERA SETUP> \rightarrow LINE LOCK

- The camera can use the power line frequency as the sync signal source.
- Line Lock can be set to ON or OFF
- Line Phase range between 40° ~ 250°

To set the line lock:

- 1. Press "95" + hold the [PRESET] key for 2 seconds to enter the main menu screen.
- 2. Move the cursor to <CAMERA SETUP>, and then press the [OPEN] key <CAMERA SETUP> menu.
- Move the cursor to <LINE LOCK>, and then press the [OPEN] key <LINE LOCK> mode selection.
- 4. Move the cursor to the selection and then press the [OPEN] key.
- 5. Move the joystick up/down to choose the selection.
- 6. Press the [OPEN] key to confirm the selection or press the [CLOSE] key to cancel selection and exit from the menu screen.

Setting Privacy Zones

<CAMERA SETUP> → PRIVACY ZONES

This feature can enable the user to black out (or white out) a specific portion of the screen to protect the necessary privacy. The size and position of these frame areas can be adjusted according to the horizontal pan, vertical tilt, and lens zoom of the camera. Up to 24 frame zones can be configured.

To set a privacy zone:

- 1. Press "95" + hold the [PRESET] key for 2 seconds to enter the main menu screen.
- Move the cursor to <CAMERA SETUP>, and then press the [OPEN] key <CAMERA SETUP> menu.
- Move the cursor to PRIVACY ZONE, and then press the [OPEN] key the selection.
- 4. Move the joystick up/down to set the P1~P24 ON/OFF selection.
- 5. Press the [OPEN] key to confirm the selection or press the [CLOSE] key to cancel selection and exit from the menu screen.

▶ To Set Privacy Zone Size and Position using the keypad controller:

- 1. First move the image to be masked to the center of the screen.
- Press number key "83" then press and hold the key for 2 seconds to go to the setup screen for the zone #: Screen display: PRIVACY ZONE 1 Move the joystick up/down to select the zone #
- 3. Press the [OPEN] key to confirm the zone #, and then go to the setup screen for the zone size: Screen display: PRIVACY ZONE SIZE, Move the joystick up/down to set the zone size.
- 4. Press the [OPEN] key to confirm the zone size, and then go to the setup screen for the zone color: Screen display: PRIVACY ZONE COLOR Move the joystick up/down to select the zone color (black or white).
- 5. Press the [OPEN] key to confirm the zone color and then go to the next zone setting step, or press the [CLOSE] key to exit the privacy zone setup mode.

Note

- 1. Up to 24 zones can be setup, but the screen can simultaneously display 8 zones.
- 2. It is recommended to set the privacy zone slightly larger than the actual area, to ensure that privacy area is not revealed during movement.
- 3. Privacy zone will zoom with the lens zoom level to ensure the effect.

Alarm Action

<CAMERA SETUP> → ALARM ACTIONS

There are a set of alarm ports under the camera including 6 alarm inputs and 1 alarm output. Each alarm can be configured with 256 preset action point, and when alarm $1\sim6$ is triggered, the camera will immediately move to the predefined position.

Note

These alarms are not visible to Nextiva VMS.

To set the Alarm Action:

- 1. Press "95" + hold the [PRESET] key for 2 seconds to enter the main menu screen.
- 2. Move the cursor to <CAMERA SETUP>, and then press the [OPEN] key <CAMERA SETUP> menu.
- 3. Before entering the <ALARM ACTIONS> screen, please first use the keypad controller to set the preset action point (press number key + key at least 2 seconds and up to 256 points) and then move the cursor to <ALARM

ACTIONS> then press the [OPEN] key the <ALARM ACTIOS> menu.

- 4. Move the cursor to the alarm input, and configure the preset action and alarm output status (ON or OFF).
- 5. Alarm DELAY TIME: The alarm delay time can be configured (5~120 sec).

The diagram below explains the alarm action from the signal:



- 1. Positive edge triggered.
- 2. If there are new alarms triggered during an existing alarm, then the first alarm will be invalid.
- 3. After the alarm ends, the camera will continue with the action before the alarm is triggered.

When using the infrared projector

When using the infrared illuminations during nighttime as an auxiliary light source, the infrared activation signal can be connected to the alarm input port and set the alarm action to BW mode. This will prevent the constant switching between color and monochrome images caused by the strength of the external light source, as well as improve sensitivity and avoid image shaking.

Motion Detection

The camera features motion detection capabilities and is similarly configured as the alarm setup.

Note

Motion function is selectable: BW/Preset point/OFF action. When camera set in Path action, the camera would track the moving objective (For WDR model only).

Setting Up Horizontal Pan and Vertical Tilt

The following section describes how to configure the Horizontal Pan and Vertical Tilt.

Setting Auto Flip

<PAN/TILT SETUP> \rightarrow AUTO FLIP

The auto flipping function will enable the camera to quickly flip 180° in the vertical direction. Objects moving under the camera can be tracked without interruption.

► To activate 180° Auto Flip:

- 1. Press "95" + hold the [PRESET] key for 2 seconds to enter the main menu screen.
- 2. Move the cursor to <PAN/TILT SETUP>, and then press the [OPEN] key <PAN/TILT SETUP> menu.
- 3. Move the cursor to the AUTO FLIP selection and then press the [OPEN] key.
- 4. Move the joystick up/down to choose ON or OFF.
- 5. Press the [OPEN] key to confirm the selection or press the [CLOSE] key to cancel selection and exit from the menu screen.

Setting Proportional P/T

<PAN/TILT SETUP> \rightarrow PROPORTIONAL P/T

Proportional P/T enabled to let the camera to adjust the horizontal pan/vertical tilt speed according to the zoom level. When zoomed in, the horizontal and vertical speed will be slowed down so as to keep the image from moving too rapidly.

To activate the Proportional P/T:

- 1. Press "95" + hold the [PRESET] key for 2 seconds to enter the main menu screen.
- 2. Move the cursor to <PAN/TILT SETUP>, and then press the [OPEN] key <PAN/TILT SETUP> menu.
- 3. Move the cursor to the PROPORTIONAL P/T selection and then press the [OPEN] key.
- 4. Move the joystick up/down to choose ON or OFF.
- 5. Press the [OPEN] key to confirm the selection or press the [CLOSE] key to cancel selection and exit from the menu screen.

Setting Scan Range

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<PAN/TILT SETUP> \rightarrow SCAN LIMIT STOPS
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When the camera scan mode is set to random, frame, or auto, once the scan range is reached, the camera will turn the other direction.

- To activate a scan range:
 - 1. Press "95" + hold the [PRESET] key for 2 seconds to enter the main menu screen.
 - 2. Move the cursor to <PAN/TILT SETUP>, and then press the [OPEN] key <PAN/TILT SETUP> menu.
 - 3. Move the cursor to the SCAN LIMIT STOPS selection and then press the [OPEN] key.
 - 4. Move the joystick up/down to choose ON or OFF.
 - 5. Press the [OPEN] key to confirm the selection or press the [CLOSE] key to cancel selection and exit from the menu screen.

To Set the Scan Range:

- 1. Activate the scan range (SCAN LIMIT STOP = ON) and then exit the menu.
- 2. Set the left limit: use the joystick and move the camera to the left limit position, then press number key "92" + hold the key for 2 seconds. The screen will show: SCAN LEFT LIMIT, and the left limit will be set.
- 3. Set the right limit: use the joystick and move the camera to the right limit position, then press number key "93" + hold the key for 2 seconds. The screen will show: SCAN RIGHT LIMIT, and the right limit will be set.

Setting Manual Scan Range

<PAN/TILT SETUP> \rightarrow MANUAL LIMIT STOPS

When using the joystick to control the horizontal panning, the camera will stop panning once it reaches the MANUAL LIMIT STOPS. The scan limit can be configured as left and right limit.

- Activate the Manual Scan Range:
 - 1. Press "95" + hold the [PRESET] key for 2 seconds to enter the main menu screen.
 - 2. Move the cursor to <PAN/TILT SETUP>, and then press the [OPEN] key
 - 3. Move the cursor to the MANUAL LIMIT STOPS selection and then press the

[OPEN] key.

- 4. Move the joystick up/down to choose ON or OFF.
- 5. Press the [OPEN] key to confirm the selection or press the [CLOSE] key to cancel selection and exit from the menu screen.
- To set Set the Manual Scan Range:
 - 1. Activate the manual scan range (MANUAL LIMIT STOP = ON) and then exit the menu.
 - 2. Set the left limit: use the joystick and move the camera to the left limit position, then press number key "90" + hold the key for 2 seconds. The screen will show: MANUAL LEFT LIMIT, and the left limit will be set.
 - 3. Set the right limit: use the joystick and move the camera to the right limit position, then press number key "91" + hold the key for 2 seconds. The screen will show: MANUAL RIGHT LIMIT, and the right limit will be set.

Setting Recover Time

<PAN/TILT SETUP> → RECOVER TIME

Under scan mode (auto, frame, random), if the auto patrol and pattern patrol are interrupted from inadvertent keypad controller input, the camera will resume the previous action after a set amount of time. The recovery time can be configured from 1 to 120 min, and can be disabled (OFF).

To set the Recovery Time:

- 1. Press "95" + hold the [PRESET] key for 2 seconds to enter the main menu screen.
- 2. Move the cursor to <PAN/TILT SETUP>, and then press the [OPEN] key <PAN/TILT SETUP> menu.
- 3. Move the cursor to the RECOVER TIME selection and then press the [OPEN] key.
- 4. Move the joystick up/down to set the time.
- 5. Press the [OPEN] key to confirm the selection or press the [CLOSE] key to cancel selection and exit from the menu screen.

Setting Scan Speed

<PAN/TILT SETUP> \rightarrow SCAN SPEED

Auto, random, and frame scan speed can be configured between 1° \sim 90° /sec, but cannot exceed the MAX SPEED setting.

To Set the Scan Speed:

- 1. Press "95" + hold the [PRESET] key for 2 seconds to enter the main menu screen.
- Move the cursor to <PAN/TILT SETUP>, and then press the [OPEN] key <PAN/TILT SETUP> menu.
- 3. Move the cursor to the SCAN SPEED selection and then press the [OPEN] key.
- 4. Move the joystick up/down to set the speed.
- 5. Press the [OPEN] key to confirm the selection or press the [CLOSE] key to cancel selection and exit from the menu screen.

Setting Stop Time

<PAN/TILT SETUP> \rightarrow STOP TIME

Under random, frame, or auto scan modes, the STOP TIME can be set. During scanning, the camera will pause at each stop position from 5 sec to 120 sec.

To set the Stop Time:

- 1. Press "95" + hold the [PRESET] key for 2 seconds to enter the main menu screen.
- 2. Move the cursor to <PAN/TILT SETUP>, and then press the [OPEN] key <PAN/TILT SETUP> menu.
- 3. Move the cursor to the STOP TIME selection and then press the [OPEN] key.
- 4. Move the joystick up/down to choose the position, and left/right to set the time.
- 5. Press the [OPEN] key to confirm the selection or press the [CLOSE] key to cancel selection and exit from the menu screen.

Setting Max Speed

<PAN/TILT SETUP> \rightarrow MAX SPEED

The max speed for horizontal pan/vertical tilt can be configured between 1° to 430° /sec. To lower the amount of noise, it is recommended that a lower speed be used.

► To set the Max Speed:

- 1. Press "95" + hold the [PRESET] key for 2 seconds to enter the main menu screen.
- 2. Move the cursor to <PAN/TILT SETUP>, and then press the [OPEN] key <PAN/TILT SETUP> menu.
- 3. Move the cursor to the MAX SPEED selection and then press the [OPEN] key.
- 4. Move the joystick up/down to set the speed.
- 5. Press the [OPEN] key to confirm the selection or press the [CLOSE] key to cancel selection and exit from the menu screen.

Setting Group

<PAN/TILT SETUP> → GROUP

For convenience of key press controls, the unit provides 4 sets of preset auto patrol group configurations.

- GROUP 1: Press "70" + [PRESET] key to run first auto patrol group.
- GROUP 2: Press "90"+ [PRESET] key to run second auto patrol group.
- GROUP 3: Press "91"+ [PRESET] key to run third auto patrol group.
- GROUP 4: Press "92"+ [PRESET] key to run fourth auto patrol group.

To set the Preset Group:

- 1. Press "95" + hold the [PRESET] key for 2 seconds to enter the main menu screen.
- Move the cursor to <PAN/TILT SETUP>, and then press the [OPEN] key <PAN/TILT SETUP> menu.
- 3. Move the cursor to the GROUP selection and then press the [OPEN] key.
- 4. Move the joystick up/down to set the group.
- 5. Move the joystick left/right to choose the start position (S), move up/down to set the preset point.
- 6. Move the joystick left/right to choose the end position (E), move up/down to set the preset point.
- 7. Press the [OPEN] key to confirm the selection or press the [CLOSE] key to cancel selection and exit from the menu screen.

Setting the Camera Title

<CAMERA TITLE> \rightarrow CAMERA TITLE INPUT

To set the Title:

- 1. Press "95" + hold the [PRESET] key for 2 seconds to enter the main menu screen.
- 2. Move the cursor to <CAMERA TITLE>, and then press the [OPEN] key <CAMERA TITLE> menu.
- 3. Move the cursor down to CAMERA TITLE INPUT, and then press the key. Use the joystick up/down to select the character.
- 4. Move the cursor down to CAMERA TITLE, and then press the key to select either ON or OFF. If OFF is selected, then the camera title will not be shown.
- 5. Press the [OPEN] key to confirm the selection or press the [CLOSE] key to cancel selection and exit from the menu screen.

Setting Up the Presets

<PRESET SETUP>

Auto Patrol

<PRESET SETUP> → AUTO PATROL

The auto patrol function will continuously scan up to 256 preset positions and is not limited by the scan range.

- To activate the Auto Patrol:
 - 1. Press "95" + hold the [PRESET] key for 2 seconds to enter the main menu screen.
 - 2. Move the cursor to <PRESET SETUP>, and then press the [OPEN] key <PRESET SETUP> menu.
 - 3. Move the cursor to the AUTO PATROL selection and then press the [OPEN] key.
 - 4. Move the joystick up/down to choose the position, and left/right to set ON or OFF.
 - 5. Press the [OPEN] key to confirm the selection or press the [CLOSE] key to cancel selection and exit from the menu screen.

Preset Speed

<PRESET SETUP $> \rightarrow$ PRESET SPEED

You can modify individual preset speed for individual preset points. When setting "MAX" SPEED in preset speed section, the speed is depended on the setting in SCAN SPEED

- To activate the Preset speed:
 - 1. Press "95" + hold the [PRESET] key for 2 seconds to enter the main menu screen.
 - 2. Move the cursor to <PRESET SETUP>, and then press the [OPEN] key <PRESET SETUP> menu.
 - 3. Move the cursor to the PRESET SPEED selection and then press the [OPEN] key.
 - 4. Move the joystick up/down to choose the position, and left/right to set preset speed.
 - 5. Press the [OPEN] key to confirm the selection or press the [CLOSE] key to cancel selection and exit from the menu screen.

Title

<PRESET SETUP $> \rightarrow <$ TITLE $> \rightarrow$ PRESET TITLE INPUT

► To activate the Tilte:

Press "95'' + hold the [PRESET] key for 2 seconds to enter the main menu screen.

Move the cursor to <PRESET SETUP>, and then press the [OPEN] key <PRESET SETUP> menu.

Move the cursor to the TITLE selection and then press the [OPEN] key.

Enter TITLE menu then move the joystick up/down to select the preset point.

Move the cursor to the right to enter the title input field. Use the joystick up/down to select the character, and then move the cursor left/right to the next character.

Move the cursor down to the TITLE POSITION, and then press the key to select either the UP or DOWN position. UP will show the title at top of the screen, and DOWN will show the title at bottom of the screen.

Preset WD (For WDR model only)

<PRESET SETUP> → PRESET WD

You can enable WDR function for individual preset point.

NotePRESET WD function only support certain models and support P0~P66 preset point only.

► To activate the Preset WD:

Press "95'' + hold the [PRESET] key for 2 seconds to enter the main menu screen.

Move the cursor to <PRESET SETUP>, and then press the [OPEN] key <PRESET SETUP> menu.

Move the cursor to the PRESET WD selection and then press the [OPEN] key.

Move the joystick up/down to choose the position(P0 \sim 66), and left/right to set OFF, BLC, or WDR.

Press the [OPEN] key to confirm the selection or press the [CLOSE] key to cancel selection and exit from the menu screen.

Preset Motion (For WDR model only)

<PRESET SETUP $> \rightarrow <$ PRESET MOTION $> \rightarrow$ PRESET MOTION

User can enable motion function for individual preset points. You can create and move up to 4 motion areas for every individual present point.

NotePRESET MOTION function only support certain models and support P0~P10 preset point only.

To activate the Preset motion:

Press "95'' + hold the [PRESET] key for 2 seconds to enter the main menu screen.

Move the cursor to <PRESET SETUP>, and then press the [OPEN] key <PRESET SETUP> menu.

Move the cursor to the PRESET MOTION selection and then press the [OPEN] key.

Move the joystick up/down to choose the position (P0 \sim 10), and left/right to set ON, or OFF.

Move the cursor to the MOTION AREA selection and then press the [OPEN] key.

Press the [OPEN] key to confirm the zone #, and then move zone. Screen display: MOTION AREA 1 MOVE

Press the [OPEN] key to confirm the zone #, and then go to the setup screen for the zone size:

Screen display: MOTION AREA 1 SIZE

Move the joystick up/down to set the zone size.

press the [CLOSE] key to exit from the menu screen.

Move the joystick up/down to choose the threshold LEVEL selection, and left/right to set HI, MID or LOW.

Move the joystick up/down to choose the INTERCAL TIME selection, and left/right to set the time.

Press the [OPEN] key to confirm the selection or press the [CLOSE] key to cancel selection and exit from the menu screen.

Setting up the Additional Functions

<OTHERS>

Freeze Activity

$\langle \text{OTHERS} \rangle \rightarrow \text{FREEZE ACTIVITY}$

When the camera is in frame, random, auto, or preset scanning modes, the camera screen can be disabled during movement, and the screen image will only be shown until the camera reaches the stop point.

To set Freeze Activity:

- 1. Press "95" + hold the [PRESET] key for 2 seconds to enter the main menu screen.
- 2. Move the cursor to <OTHERS>, and then press the [OPEN] key <OTHERS> menu.
- 3. Move the cursor to the FREEZE ACTIVITY selection and then press the [OPEN] key.
- 4. Move the joystick up/down to set ON or OFF.
- 5. Press the [OPEN] key to confirm the selection or press the [CLOSE] key to cancel selection and exit from the menu screen.

Scan Tilt Angle

 $\langle \text{OTHERS} \rangle \rightarrow \text{SCAN TILT ANGLE}$

The camera tilt angle can be configured for different application requirements.

To set the Tilt Angle:

- 1. Press "95" + hold the [PRESET] key for 2 seconds to enter the main menu screen.
- 2. Move the cursor to <OTHERS>, and then press the [OPEN] key <OTHERS>
- 3. Move the cursor to the SCAN TILT ANGLE selection and then press the

[OPEN] key.

- 4. Move the joystick up/down to set tilt angle (0~92°).
- 5. Press the [OPEN] key to confirm the selection or press the [CLOSE] key to cancel selection and exit from the menu screen.

Schedule

<OTHERS> → <SCHEDULE>

Four sets of schedules can be configured with individual start time, end time, and action mode. The actions include preset($0 \sim 32$), auto scan, auto patrol $1 \sim 4$, frame scan, and random scan modes.

To set a Schedule:

- 1. Press "95" + hold the [PRESET] key for 2 seconds to enter the main menu screen.
- Move the cursor to <OTHERS>, and then press the [OPEN] key <OTHERS> menu.
- 3. Move the cursor to <SCHEDULE>, and then press the [OPEN] key the <SCHEDULE> menu.
- 4. Move the cursor to WEEK and then press the key. Use the joystick up/down to select the week and press the key to confirm the selection and quit.
- 5. Move the cursor to ENABLE and press the key to enter the option. Use the joystick up/down to set ON or OFF.
- 6. Press the key to set the start time, end time, and status options.
- 7. Move the joystick up/down to make the selection.
- 8. Press the [OPEN] key to confirm the selection or press the [CLOSE] key to cancel selection and exit from the menu screen.

Note

- 1. The Start and End time setup is by the unit of hours. For example, set 0 -> 1 means from 00:00 to 01:59, 2 hours in total.
- 2. When a schedule mode is ON and within the schedule time interval, the dome will still perform scheduling after power up from abnormal power lost; regardless of the setting for power on Menu.

Setting up the System

<SYSTEM>

Setting the Week

 $\langle SYSTEM \rangle \rightarrow WEEK$

- To set the Week:
 - 1. Press "95" + hold the [PRESET] key for 2 seconds to enter the main menu screen.
 - Move the cursor to <SYSTEM>, and then press the [OPEN] key <SYSTEM> menu.
 - 3. Move the cursor to the WEEK selection and then press the [OPEN] key.
 - 4. Move the joystick up/down to set the week.
 - 5. Press the [OPEN] key to confirm the selection or press the [CLOSE] key to cancel selection and exit from the menu screen.

Setting the Time

 $\langle SYSTEM \rangle \rightarrow TIME$

- To set the Time:
 - 1. Press "95" + hold the [PRESET] key for 2 seconds to enter the main menu screen.
 - Move the cursor to <SYSTEM>, and then press the [OPEN] key <SYSTEM> menu.
 - 3. Move the cursor to the TIME selection and then press the [OPEN] key.
 - 4. Move the joystick up/down to set the time.
 - 5. Press the [OPEN] key to confirm the selection or press the [CLOSE] key to cancel selection and exit from the menu screen.

Setting the Password

 $\langle SYSTEM \rangle \rightarrow \langle PASSWORD \rangle$

• To set the Password:

- 1. Press "95" + hold the [PRESET] key for 2 seconds to enter the main menu screen.
- Move the cursor to <SYSTEM>, and then press the [OPEN] key <SYSTEM> menu.
- 3. Move the cursor to <PASSWORD>, and then press the [OPEN] key the <PASSWORD> menu.
- 4. Move the cursor to PASSWORD ENABLE and press the key to enter the option. Use the joystick up/down to set ON or OFF.
- 5. If ON is selected, please enter the password. Press the key to enter the PASSWORD menu.
- 6. Move the joystick up/down to set the password.
- 7. Press the [OPEN] key to confirm the selection or press the [CLOSE] key to cancel selection and exit from the menu screen.

Power Up Mode

$\langle SYSTEM \rangle \rightarrow POWER UP$

The camera can be configured to different moves after power up:

- PARK: The camera will move to the first preset position.
- AUTO SCAN: The camera will run auto scan.
- FRAME SCAN: The camera will run frame scan.
- RANDOM SCAN: The camera will run random scan.
- AUTO PATROL: The camera will run auto patrol.
- PATTERN 1: The camera will run pattern 1.
- BY DEFAULT: The speed dome would return to default setting after power on. Ex, if the default setting is Auto Scan, the speed dome would run Auto Scan after power on.
- SCHEDULE: If the default setting is SCHEDULE, the speed dome would run the path setting in SCHEDULE after power on.

Note

- 1. If Recover Time is enabled, the speed dome would still enable Recover Time function after power on.
- 2. When a schedule mode is ON and within the schedule time interval, the dome will still perform scheduling after power up from abnormal power lost; regardless of the setting for power on Menu.

To set the Power Up Mode:

- 1. Press "95" + hold the [PRESET] key for 2 seconds to enter the main menu screen.
- Move the cursor to <SYSTEM>, and then press the [OPEN] key <SYSTEM> menu.
- 3. Move the cursor to the POWER UP selection and then press the [OPEN] key.
- 4. Move the joystick up/down to set the power up mode.
- 5. Press the [OPEN] key to confirm the selection or press the [CLOSE] key to cancel selection and exit from the menu screen.

Load Factory Default

 $\langle SYSTEM \rangle \rightarrow LOAD FACTORY DEFAULT$

To load the Factory Default:

- 1. Press "95" + hold the [PRESET] key for 2 seconds to enter the main menu screen.
- Move the cursor to <SYSTEM>, and then press the [OPEN] key <SYSTEM> menu.
- 3. Move the cursor to LOAD FACTORY DEFAULT, and then press the [OPEN] key twice to show the screen: LOAD FACTORY DEFAULT and the setup is complete.

Note

Please do not operate keyboard when "*" appear; wait for arrows showing on screen.

E-FLIP

 $\langle SYSTEM \rangle \rightarrow E-FLIP$

To set as E-Flip:

- 1. Press "95" + hold the [PRESET] key for 2 seconds to enter the main menu screen.
- Move the cursor to <SYSTEM>, and then press the [OPEN] key <SYSTEM> menu.
- 3. Move the cursor to the E-FLIP selection and then press the [OPEN] key E-FLIP menu.
- 4. Move the joystick up/down to set ON or OFF.
- 5. Press the [OPEN] key to confirm the selection or press the [CLOSE] key to cancel selection and exit from the menu screen.

Mirror

 $\langle SYSTEM \rangle \rightarrow MIRROR$

- To set Mirror mode:
 - 1. Press "95" + hold the [PRESET] key for 2 seconds to enter the main menu screen.
 - Move the cursor to <SYSTEM>, and then press the [OPEN] key <SYSTEM> menu.
 - 3. Move the cursor to the MIRROR selection and then press the [OPEN] key MIRROR menu.
 - 4. Move the joystick up/down to set ON or OFF.
 - 5. Press the [OPEN] key to confirm the selection or press the [CLOSE] key to cancel selection and exit from the menu screen.

Language

$\langle SYSTEM \rangle \rightarrow LANGUAGE$

OSD supports multiple built-in languages (NTSC: English/Traditional Chinese/Spanish/Portuguese/Japanese/French; PAL: English/Spanish/Portuguese/French/German/Polish/Italian/Russian)

To set the language:

- 1. Press "95" + hold the [PRESET] key for 2 seconds to enter the main menu screen.
- Move the cursor to <SYSTEM>, and then press the [OPEN] key <SYSTEM> menu.
- 3. Move the cursor to the LANGUAGE selection and then move the joystick up/down to set language.
- 4. Press the [OPEN] key to confirm the selection or press the [CLOSE] key to cancel selection and exit from the menu screen.

Action

$\langle SYSTEM \rangle \rightarrow ACTION$

You can set speed dome to auto return to default scan mode/patrol or return to park when recover time end.

► To Set the ACTION:

- 1. Press "95" + hold the [PRESET] key for 2 seconds to enter the main menu screen.
- Move the cursor to <SYSTEM>, and then press the [OPEN] key <SYSTEM> menu.
- 3. Move the cursor to the ACTION selection and then move the joystick up/down to set AUTO RETURN or PARK.
- 4. Press the [OPEN] key to confirm the selection or press the [CLOSE] key to cancel selection and exit from the menu screen.

Pattern Tour

The Nextiva S5500 IP PTZ cameras provides four sets of patterns and playback modes for selection. Actions for playback include lens zoom, horizontal pan, and vertical tilt etc. Once the pattern is recorded, it can be played back accordingly to the user's discretion. Each set can record up to 6 minutes and up to 4 sets (24 minutes) of patterns recorded.

Pattern tour configuration:

- 1. Record:
 - Press "101" + [PRESET] key for 2 seconds → Begin first set
 - Press "102" + [PRESET] key for 2 seconds \rightarrow Begin second set
 - Press "103" + [PRESET] key for 2 seconds → Begin third set
 - Press "104" + [PRESET] key for 2 seconds → Begin fourth set
 - Stop recording: Press "105"+ [PRESET] key

2. Playback:

- Press "101" + [PRESET] key \rightarrow Playback first set
- Press "102" + [PRESET] key \rightarrow Playback second set
- Press "103" + [PRESET] key → Playback third set
- Press "104" + [PRESET] key \rightarrow Playback fourth set

Note

When the user is recording a pattern, the OSD cannot be accessed to modify an action, as the pattern recording will be interrupted. The ongoing pattern would keep being performed after powered up from abnormal power lost; regardless of the setting for power menu.

Using the Nextiva S5500 IP PTZ Preset Commands

Use the keypad controller preset commands to quickly execute specific functions or perform setting changes.

+Preset: press the PRESET key once.

+Set Preset: press and hold the PRESET key for two seconds.

Note

Different keypad controllers may have different preset button combinations. Please refer to the keyboard instruction manual for key combinations.

The following table lists the button combinations and the corresponding functions for use with keypad controllers: Messoa-P, Messoa-D, Pelco P, Pelco D, Bosch, and Ernitec protocol.

Number + Key Press ^a	Function
0~3235~66111~255+Preset	Move camera to preset point 0~32,35~66, 111~255
33+Preset	Flip
34+Preset	Return to origin
70+Preset	Begin auto patrol-Group1
90+Preset	Begin auto patrol-Group2
91+Preset	Begin auto patrol-Group3
92+Preset	Begin auto patrol-Group4
71+Preset	Backlight compensation ON
72+Preset	Backlight compensation OFF
73+Preset	White balance-one push
74+Preset	Focus-one push
75+Preset	Show software version
76+Preset	Self test
88+Preset	Color mode (daytime)
89+Preset	Monochrome mode (nighttime)

^a123+ Preset is unavailable

Only 211 points can be preset and there are 20 points preserved for future use such as 67~69, 77~82, 84~87, 94, 100, 106~110.

Number + Key Press ^a	Function
96+Preset	Stop scan
97+Preset	Begin random scan
98+Preset	Begin frame scan
99+Preset	Begin auto scan
101+Preset	Run Pattern Tour-Group1
102+Preset	Run Pattern Tour-Group2
103+Preset	Run Pattern Tour-Group3
104+Preset	Run Pattern Tour-Group4
105+Preset	Stop Pattern Tour-record
0~3235~66111~255+Set Preset	Configure preset point0~32,35~66, 111~255
83+Set Preset	Enter privacy zone setup mode
90+Set Preset	Set manual left limit
91+Set Preset	Set manual right limit
92+Set Preset	Set scan left limit
93+Set Preset	Set scan right limit
95+Set Preset	Open menu screen
101+Set Preset	Start pattern tecord-Group1
102+Set Preset	Start pattern tecord-Group2
103+Set Preset	Start pattern tecord-Group3
104+Set Preset	Start pattern tecord-Group4

The following table lists the button combinations and the corresponding functions for use with keypad controllers: GE (Kalatel KTD-405) protocol.

Number + Key Press	Function		
0~32, 35~52 +Preset	Move camera to preset point $0\sim32$, $35\sim52$		
33+Preset	Flip		
34+Preset	Return to origin		
53+Preset	Backlight compensation ON		

^a123+ Preset is unavailable

Only 211 points can be preset and there are 20 points preserved for future use such as 67~69, 77~82, 84~87, 94, 100, 106~110.

Number + Key Press	Function
54+Preset	Backlight compensation OFF
55+Preset	White balance – one push
56+Preset	Focus – one push
58+Preset	Show software version
57+Preset	Self test
60+Preset	Stop scan
61+Preset	Begin random scan
62+Preset	Begin frame scan
59+Preset	Begin auto scan
0~32, 35,52+ Set Preset	Configure preset point 0~32, 35,52
62+Set Preset	Set manual left limit
60+Set Preset	Set manual right limit
61+Set Preset	Set scan left limit
59+Set Preset	Set scan right limit
63+Set Preset	Open menu screen

Appendix

5

Technical Specifications

The sections describes the DIP switch settings and the technical specifications for the Nextiva S5500 PTZ series.

The following topics are discussed:

DIP Switch Settings	. 103
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Communication protocol / Baud rate / Terminal resistance	108
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DIP Switch Settings

The factory default DIP switch settings are SW1: 1 is ON, and SW2: 3, 4, 7 and 8 are ON.

- SW1 sets the PTZ address.
- SW2 sets the protocol/baud rate and termination resistor.



The factory default values are:

- PTZ Address is set to 1
- Protocol is set for Pelco-D. (DIP switches 3 and 4 are ON.)
- Baud rate is set for 2400 bps. (DIP switches 7 and 8 are ON.)
- Termination resistor is off. (DIP switch 2 is OFF.)

Note

In an IP only configuration, the DIP switch settings do not need to be modified. However, if you are using a hybrid (Serial-IP) configuration and change the DIP switch settings, you need to set the Protocol and PTZ address values in Nextiva VMS to match the value of the DIP switch in order to control the PTZ IP camera.

- To access the DIP switch on the Outdoor Models:
 - 1. Loosen the three screws on top of the outdoor models.



- 2. Rotate the top cover clockwise and remove.
- 3. Change the DIP switch settings accordingly.
- To access the DIP switch on the Indoor model:
 - 1. Turn the Indoor model upside down to access the DIP switch.



2. Change the DIP switch settings accordingly.

SW1 PTZ Address Setup

The following table lists the PTZ address setup.

PTZ	SW Pin Number									
Address	1	2	3	4	5	6	7	8		
1	on	off								
2	off	on	off	off	off	off	off	off		
3	on	on	off	off	off	off	off	off		
4	off	off	on	off	off	off	off	off		
5	on	off	on	off	off	off	off	off		
6	off	on	on	off	off	off	off	off		
7	on	on	on	off	off	off	off	off		
8	off	off	off	on	off	off	off	off		
9	on	off	off	on	off	off	off	off		
10	off	on	off	on	off	off	off	off		
11	on	on	off	on	off	off	off	off		
12	off	off	on	on	off	off	off	off		
13	on	off	on	on	off	off	off	off		
14	off	on	on	on	off	off	off	off		
15	on	on	on	on	off	off	off	off		
16	off	off	off	off	on	off	off	off		
17	on	off	off	off	on	off	off	off		
18	off	on	off	off	on	off	off	off		
19	on	on	off	off	on	off	off	off		
20	off	off	on	off	on	off	off	off		
21	on	off	on	off	on	off	off	off		
22	off	on	on	off	on	off	off	off		
23	on	on	on	off	on	off	off	off		
24	off	off	off	on	on	off	off	off		
25	on	off	off	on	on	off	off	off		
26	off	on	off	on	on	off	off	off		
27	on	on	off	on	on	off	off	off		
28	off	off	on	on	on	off	off	off		
29	on	off	on	on	on	off	off	off		
30	off	on	on	on	on	off	off	off		

PTZ	SW Pin Number									
Address	1	2	3	4	5	6	7	8		
31	on	on	on	on	on	off	off	off		
32	off	off	off	off	off	on	off	off		
33	on	off	off	off	off	on	off	off		
34	off	on	off	off	off	on	off	off		
35	on	on	off	off	off	on	off	off		
36	off	off	on	off	off	on	off	off		
37	on	off	on	off	off	on	off	off		
38	off	on	on	off	off	on	off	off		
39	on	on	on	off	off	on	off	off		
40	off	off	off	on	off	on	off	off		
41	on	off	off	on	off	on	off	off		
42	off	on	off	on	off	on	off	off		
43	on	on	off	on	off	on	off	off		
44	off	off	on	on	off	on	off	off		
45	on	off	on	on	off	on	off	off		
46	off	on	on	on	off	on	off	off		
47	on	on	on	on	off	on	off	off		
48	off	off	off	off	On	on	off	off		
49	on	off	off	off	On	on	off	off		
50	off	on	off	off	on	on	off	off		
51	on	on	off	off	on	on	off	off		
52	off	off	on	off	on	on	off	off		
53	on	off	on	off	on	on	off	off		
54	off	on	on	off	on	on	off	off		
55	on	on	on	off	on	on	off	off		
56	off	off	off	on	on	on	off	off		
57	on	off	off	on	on	on	off	off		
58	off	on	off	on	on	on	off	off		
59	on	on	off	on	on	on	off	off		
60	off	off	on	on	on	on	off	off		

PTZ	SW Pin Number									
Address	1	2	3	4	5	6	7	8		
61	on	off	on	on	on	on	off	off		
62	off	on	on	on	on	on	off	off		
63	on	on	on	on	on	on	off	off		
64	off	off	off	off	off	off	on	off		
65	on	off	off	off	off	off	on	off		
66	off	on	off	off	off	off	on	off		
67	on	on	off	off	off	off	on	off		
68	off	off	on	off	off	off	on	off		
		•	•	•		•	•	•		
•						•				
		•	•		•	•	•	•		
•	•	•	•	•	•	•	•	•		
230	off	on	on	off	off	on	on	on		
231	on	on	on	off	off	on	on	on		
232	off	off	off	on	off	on	on	on		
233	on	off	off	on	off	on	on	on		
234	off	on	off	on	off	on	on	on		
235	on	on	off	on	off	on	on	on		
236	off	off	on	on	off	on	on	on		
237	on	off	on	on	off	on	on	on		

Communication protocol / Baud rate / Terminal resistance

SW pin#			2	3	4	5	6	7	8
Communication	Pelco-P	NC	NC	OFF	ON	OFF	OFF	NC	NC
Protocol	Pelco-D	NC	NC	ON	ON	OFF	OFF	NC	NC
	Bosch	NC	NC	OFF	OFF	ON	OFF	NC	NC
	Ernitec	NC	NC	ON	OFF	ON	OFF	NC	NC
	Kalatel	NC	NC	OFF	ON	ON	OFF	NC	NC
	Тусо	NC	NC	ON	ON	ON	OFF	NC	NC
Baud Rate	2400	NC	NC	NC	NC	NC	NC	ON	ON
	4800	NC	NC	NC	NC	NC	NC	OFF	ON
	9600	NC	NC	NC	NC	NC	NC	ON	OFF
	19200	NC	NC	NC	NC	NC	NC	OFF	OFF
Terminal	ON	NC	ON	NC	NC	NC	NC	NC	NC
Resistance	OFF	NC	OFF	NC	NC	NC	NC	NC	NC

Technical Specifications

The following table presents the technical specifications for the Nextiva S5500 PTZ IP Cameras:

	S5503PTZ-18ID	S5503PTZ- 28DW	S5503PTZ-36DW					
Imaging								
CCD	1/4" Sony SuperHAD CCD	1/4" SONY ExView H	HAD CCD					
Optical Zoom	18X	28x	36x					
F-Stop Range	F1.4 ~ F3.0	F1.35 ~ F3.7	F1.6 ~ F4.5					
Focal Length	4.1mm (wide)- 73.8mm (tele)	3.5 mm (wide) - 98 mm (tele)	3.4mm (wide)- 122.4mm (tele)					
View Angle	48.0° (wide) to 2.8° (tele)	55.8° (wide) to 2.1°(tele)	57.8° (wide) to 1.7° (tele)					
	S5503PTZ-18ID	S5503PTZ- 28DW	S5503PTZ-36DW					
--------------------------------	--	--	--					
Minimum Working Distance	290mm (wide), 800 mm (tele)	10 mm (wide) ~ 1500 mm (tele)	320mm (wide) to 1500mm (tele)					
Effective Pixels (HxV)	NTSC 380k pixels, PAL440k pixels							
Scanning System	2:1 Interlace <i>I</i> NTSC V: 59.94Hz H: 15.734KHz <i>I</i> PAL V: 50Hz, H: 15.625KHz							
Sync Systems	Internal I linelock							
Analog Video Output	1vpp composite output, 75 ohm							
Horizontal Resolution	560 TVL							
S/N Ratio	> 50dB							
Zoom Limit	216x (18x Optical, 12x Digital)	336x (28x Optical, 12x Digital)	432x (36x Optical, 12x Digital)					
Focus	Auto (sensitivity: normal, low), One-push AF, Manual, Infinity, Interval AF, Zoom Trigger AF							
Minimum Illumination	0.71ux/1/60 sec (NTSC), 1/50 sec (PAL), 0.041ux/1/4 sec (NTSC), 1/3 sec (PAL), ICR-ON Mode:0.01 lux/1/4 sec(NTSC),1/3 sec (PAL)	0.65 lux (1.35, 501RE), 0.04 lux/1/4 sec (NTSC), 1/3 sec (PAL), ICR-ON Mode:O OOSiux/1/4 sec (NTSC), 1/3 sec (PAL)	1.4 lux/1/60 sec (NTSC), 1/50 sec (PAL), 0.1 lux/1/4 sec (NTSC), 1/3 sec (PAL), ICR-ON Mode:0.01 lux/1/4 sec (NTSC),1/3 sec (PAL)					
Gain Control	Auto/Manual (-3 to 28 dB, 2 dB steps)							
Color Enhance- ment								
White Balance	Auto, ATW, One-push, indoor, Outdoor, Manual, Sodium Vapor Lamp (Fix/Auto)							
Electric Shutter	1/4(1/3) to 1/10,000sec. 20 Steps							

	S5503PTZ-18ID	S5503PTZ- 28DW	S5503PTZ-36DW
Auto Slow Shutter	On/Off		
AE Control	Auto, Manual, Priority mode, Bright, EV compensation, Back- light compensation		
Backlight Com- pensation	On/Off		
Alarm Function	Yes		
Day/Night Mode	Auto I Manual		
Wide Dynamic Range	133x		
30 Noise Reduction	On/Off (6 steps)		
Motion Detection	Yes		
Video			
Resolution	Scalable from CIF (352x240 pixels for NTSC; 352x288 pixels for PAL) to D1 (720x480 pixels for NTSC; 720x576 pixels for PAL)		
Frame rate	1-30 NTSC, 1-25 PAL		
Streams	3 x H.264, 1 x MJPEG streams (4 streams total)		
Per- formance	D1/30fps on all streams simultaneously up to 10Mbps		
Bandwidth	Each stream configurable from 30Kbps to 6Mbps		
Network			
Interface	RJ-45, Ethernet 10/100 Base-T		
Transport Protocols	RTP/IP, UDP/IP, TCP/IP, or Multicast IP		
Other Protocols	DNS, NTP, SNMPv1/v2c/v3 (MIB-11), HTTP, HTTPS, DHCP client and 802.1x		
Security	SSL-based authentication, password protected, HTTPS		
Picture Effect			
Mechanical	Yes		

	S5503PTZ-18ID	S5503PTZ- 28DW	S5503PTZ-36DW	
Flip E-Fiip				
Mirror Image	Yes			
P/T Operatio	ns			
Pan Range	360° Continuous			
Tilt Range	170° (85° each hemisphere)	184° (92° each hemisphere)		
Manual Pan Speed	0.1°- 90° /sec			
Manual Pan Speed (Turbo)	150° /sec			
Manual Tilt Speed	0.1°-45° /sec			
Preset Speed	Pan: 430°/sec (max): Tilt: 200°/sec (max)			
Proportional PIT	Yes			
Pan/Tilt Limit	User definable			
Auto Flip	On/Off			
Zoom Limit	18x (optical only), 36x, 72x, 144x, 216x	28x (optical only), 56x, 112x,224x, 336x	x36 (optical only), x72,x144,x288,x432	
Pro- grammable Preset	256 points			
Pro- grammable Tours	4 pattern tours up to 6 minutes total			
Privacy Zone	On/Off, up to 24 zones of 3D Privacy Masking			
Alarm	6 inputs I 1 output			
Preset Titles	Max 20 characters			
Password	Alphanumeric Dome OSD setup protection			

	S5503PTZ-18ID	S5503PTZ- 28DW	S5503PTZ-36DW
Protection			
Pan Accuracy	Super Fine Pan 0.04° Accuracy		
Motion Detection	On/Off		
Protocols			
Remote Control	Pelco P/D, GE-Kalatel, Bosch, Ernitec, Tyco		
Interface	RS485 (2-wire)		
Baud Rate	2400,4800,9600,19200 bits/sec (DIP-sw selectable)		
Mechanical/E	Environment		
Operating Tem- perature	-10°C to 50°C (- 14°Fto 122°F)	-40°C to 50°C (-40°F to 122°F)	
Operating Humidity	20% to 80% RH		
Storage Tem- perature	-20°C to 60°C (-4°F to 140°F)	-40°C to 60°C (-40°F to 140°F)	
Dimensions (Ø × H)	250mm [Ø] × 257mm [H] (9.8" [Ø] × 10.1" [H])	216.6mm [Ø] × 324.0mm [H] (85.3"[Ø] x 12.8" [H])	
Weight	Net Weight 3.60 kg (7.7 lb), Shipping Weight: 7.0 kg (15.51b)	4.0 kg (8.81b)	
Electrical			
Power Require- ment	24V AC		
Power Con- sumption	18W(Max)	46W(Max)	
OSD			
Language Support	English		

	S5503PTZ-18ID	S5503PTZ- 28DW	S5503PTZ-36DW
Regulation			
Regulatory	RoHS compliant, USA- UL, FCC Part 15 (Subpart B, Class A)		
	Canada- ICES03 class AEU - CE marking CE marking (EN55022, EN55024)		
		750KG (1,650 lb) in	npact resistance
Water/Dust Ingression		IP67	
Available Mounts	In Ceiling Only (no mounting kits required)	Pendant, Wall, Pole, Corner mounting kits available	

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Americas: info@verint.com

EMEA: marketing.<u>emea@verint.com</u>

APAC: marketing.apac@verint.com

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