

# ALIBI™ ALI-NVR7132R, ALI-NVR7164R Embedded Network Video Recorder Quick Setup Guide

This quick setup guide provides instructions to initially setup and use the ALI-NVR7132R and ALI-NVR7164 network video recorders (NVRs).



For information about using your NVR and its extensive capabilities, refer to the *Alibi Embedded Network Video Recorder Firmware V3.4.x User Manual* provided at [www.alibisecurity.com/resources](http://www.alibisecurity.com/resources).

For more information, refer to these documents - available from your equipment vendor:

- *ALIBI™ Tools Utility Installation and User Manual*
- *ALIBI™ Witness and ALIBI™ Witness HD Apps - Quick Start Guide*

## NVR CONTROLS, CONNECTORS AND INDICATORS

Your new security system is easy to use and easy to setup. This section includes the function and use of the components included with a NVR system. Advanced control and configuration procedures are included in the *ALIBI Embedded Network Video Recorder Firmware V3.4.x User Manual*.

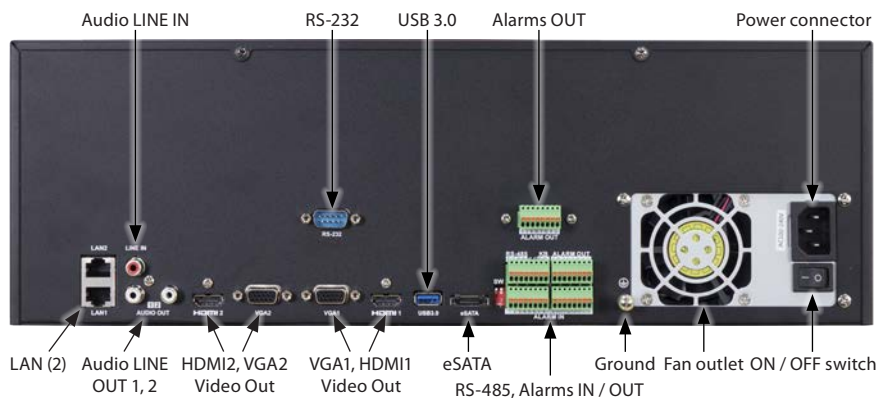
### NVR Front Panel



Name	Function Description	
Status Indicators	ALARM	Turns red when a sensor alarm is detected.
	READY	Ready LED is normally blue, indicating that the device is functioning properly.
	STATUS	Turns blue when device is controlled by an IR remote.
		Turns red when controlled by a keyboard and purple when IR remote and keyboard is used at the same time.
	HDD	Flashes red when data is being read from or written to HDD.
TX/RX	GUARD	Flashes blue when network connection is functioning properly.
		Guard LED turns blue when the device is in armed status; at this time, an alarm is enabled when an event is detected. The LED turns off when the device is unarmed. The arm/disarm status can be changed by pressing and holding on the ESC button for more than 3 seconds in live view mode.
IR Receiver	Receiver for IR remote	
Front Panel Lock	You can lock or unlock the panel by the key.	
Alphanumeric Buttons	Switch to the corresponding channel in Live view or PTZ Control mode.	
	Input numbers and characters in Edit mode.	
	Switch between different channels in Playback mode.	
	The light of the button is blue when the corresponding channel is recording; it is red when the channel is in network transmission status; it is pink when the channel is recording and transmitting.	
USB ports (2)	Universal Serial Bus (USB) ports for additional devices such as USB mouse and USB Hard Disk Drive (HDD).	
Composite Keys	ESC	Back to the previous menu.
		Press for Arming/disarming the device in Live View mode.
	REC / SHOT	Enter the Manual Record setting menu.
		In PTZ control settings, press the button and then you can call a PTZ preset by pressing Numeric button. It is also used to turn audio on/off in the Playback mode.
	PLAY / AUTO	The button is used to enter the Playback mode.
		It is also used to auto scan in the PTZ Control menu.
	ZOOM+	Zoom in the PTZ camera in the PTZ Control setting.
	A / FOCUS+	Adjust focus in the PTZ Control menu.
		It is also used to switch between input methods (upper and lowercase alphabet, symbols and numeric input).
	EDIT / IRIS+	Edit text fields. When editing text fields, it will also function as a Backspace button to delete the character in front of the cursor.
		On checkbox fields, pressing the button will tick the checkbox.
		In PTZ Control mode, the button adjusts the iris of the camera.
		In Playback mode, it can be used to generate video clips for backup. Enter / exit the folder of USB device and eSATA HDD.
MAIN / SPOT / ZOOM-	Switch between main and spot output.	
	In PTZ Control mode, it can be used to zoom out the image.	
F1 / LIGHT	Select all items on the list when used in a list field.	
	In PTZ Control mode, it will turn on / off PTZ light (if applicable).	
	In Playback mode, it is used to switch between play and reverse play.	

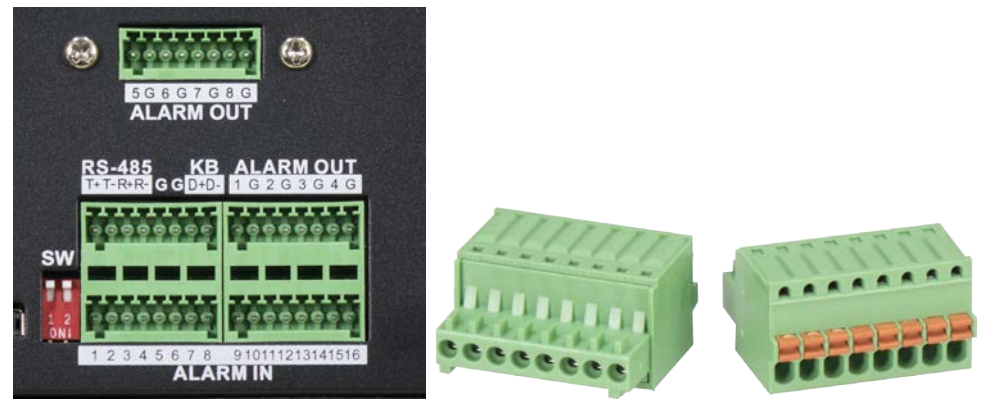
Name	Function Description	
Composite Keys (cont.)	F2 / AUX	Cycle through tab pages.
		In synchronous playback mode, it is used to switch between channels
	MENU / WIPER	Press the button will help you return to the Main menu (after successful login).
		Press and hold the button for 5 seconds will turn off audible key beep.
		In PTZ Control mode, the MENU / WIPER button will start wiper(if applicable).
Composite Keys (cont.)	PREV / FOCUS-	Switch between single screen and multi-screen mode.
		In PTZ Control mode, it is used to adjust the focus in conjunction with the A / FOCUS+ button.
	PTZ / IRIS-	Enter the PTZ Control mode.
		In the PTZ Control mode, it is used to adjust the iris of the PTZ camera.
Control Buttons	DIRECTION	The DIRECTION buttons are used to navigate between different fields and items in menus.
		In the Playback mode, the Up and Down button is used to speed up and slow down recorded video. The Left and Right button will select the next and previous record files.
		In Live View mode, these buttons can be used to cycle through channels.
		In PTZ control mode, it can control the movement of the PTZ camera.
	ENTER	The ENTER button is used to confirm selection in any of the menu modes.
		It can also be used to tick checkbox fields.
		In Playback mode, it can be used to play or pause the video.
		In single-frame Playback mode, pressing the button will advance the video by a single frame.
		In Auto-switch mode, it can be used to stop / start auto switch.
JOG SHUTTLE Control	Move the active selection in a menu. It will move the selection up and down.	
	In Live View mode, it can be used to cycle through different channels.	
	In the Playback mode: The ring is used to jump 30 seconds forward / backward in video files.	
	In PTZ control mode, it can control the movement of the PTZ camera.	
POWER ON / OFF	Power on / off switch. Switch on the back panel must be ON.	

## NVR Backpanel



Item	Description
eSATA	Connects external SATA HDD, CD / DVD-RM
RS-485, Alarms IN / OUT	See topic below.
Power connector	AC 100V ~ 240V power supply.
Audio LINE IN	RCA connector for audio line level input.
Audio LINE OUT 1, 2	RCA connectors for audio line level outputs.
RS-232 Interface	Connector for RS-232 devices.
VGA1, VGA2	DB9 connectors for VGA output 1, 2. Displays local video output and menus. VGA1 and VGA2 have different output format options.
HDMI1, HDMI2	HDMI video output 1, 2 connectors. HDMI1 and HDMI2 have different output format options.
USB 3.0 interface	Universal Serial Bus (USB) ports for additional devices such as USB mouse and USB Hard Disk Drive (HDD).
LAN Interface (2)	10 / 100 / 1000BASE-T network interfaces
GROUND	Ground (must be connected when NVR starts up)
ON / OFF switch	Switch for powering on / off the device.

## RS-485, ALARMS IN / OUT



RS-485 and system alarm connectors with plug-in termination blocks

Item	Description
SW	RS-485 termination switch: Up position is not terminated. Down position is terminated with 120 Ω resistor.
RS-485 (T+, T-, R+, R-)	T+ and T- pins connect to R+ and R- pins of PTZ receiver respectively.
KB	Controller port: D+, D- pin connects to Ta, Tb pin of controller. For cascading devices, the first NVR's D+, D- pin should be connected with the D+, D- pin of the next NVR
ALARM IN (1 through 16)	Alarm inputs 1 - 16. Alarm input is tied to ground through the alarm sensor.
ALARM OUT (1-G through 8-G)	Alarm outputs 1 - 8 with ground terminations.

## Mouse control

A standard 3-button (left / right / scroll-wheel) USB mouse can also be used with this NVR. To use a USB mouse:

1. Plug USB mouse into the either a front panel or back panel USB connector of the NVR.
2. The mouse will be automatically detected. If the mouse is not detected, the mouse may not be compatible with the NVR. Please refer to the recommended device list from your provider.

The operation of the mouse:

Action	Effect
Right click	<b>Live view:</b> Show menu. <b>Menu:</b> Exit current menu to upper level menu.
Left click	<b>Single click:</b> Live view: Select channel and show the quick set menu. <b>Menu:</b> Select and enter.
	<b>Double click:</b> Live view: Switch between single-screen and multi-screen.
	<b>Click and drag:</b> PTZ control: pan, tilt and zoom. Tamper-proof, privacy mask and motion detection: Select target area. Digital zoom-in: Drag and select target area. <b>Live view:</b> Drag channel / time bar
Scroll wheel	<b>Scroll up:</b> Live view: Previous screen. <b>Menu:</b> Previous item.
	<b>Scroll down:</b> Live view: Next screen. <b>Menu:</b> Next item.

## Soft keyboard

One of two on-screen keyboards appears when you click in a field that accepts a entry, such as a password or name or a numerical value. A third keyboard which includes symbols can also be opened while in the numeric keyboard. The alphanumeric keyboard is shown in the following picture. Some control keys toggle their function when they are clicked. A numerical keyboard, shown beneath, appears for numerical entries such as an IP address.



## Step 1. Installing the System

### What's in the box

Your system includes:

- ALI-NVR7100R Series NVR
- HDDs (if purchased)
- Rack mounting brackets (1 set)
- Front panel keys (2)
- USB mouse
- eSATA cable
- Power cable for NVR
- Disk mounting handles (32 (2 per HDD))
- Quick Installation Guide (this document)
- Documentation and utility CD



*eSATA cable and front panel keys*



*Chassis rack mount bracket (left, 1 of 2) and Disk mounting handles (right, 1 of 32)*

Remove the equipment from its packaging and place it on a flat, clean surface. Inspect each item. If any visible damage is present, contact your supplier for a replacement. Verify that your order is complete.

## What you need

Although each security system installation is different, most require the following items not included with your system components:

- VGA or HDMI compatible computer monitor and interface cable
- HDDs compatible with the NVR (up to 16, each with up to 6TB)
- IP cameras and cables compatible with the NVR
- Phillips #1 screwdriver (for installing disk mounting handles on HDDs, rack mount brackets)
- Tools to install the cameras and route power and video cables
- Fasteners to attach the cameras to the mounting surfaces
- A display device and interface cable to connect to the NVR. The NVR will connect directly to a VGA video monitor or an HDMI monitor. It can be disconnected when the NVR is networked for access across a LAN or Internet.
- Uninterruptible power supply (UPS). This device is used to ensure system stability during voltage surges, sags, and outages. If a UPS is not available, a power strip with strong surge protection is highly recommended.

## NVR installation general guidelines:

### NVR Placement

Your monitoring and recording equipment is the core device for constant surveillance and the reliable capture of video evidence. Observint Technologies strongly suggest that it be installed in a secure location with access limited to authorized personnel. The NVR can be installed on a shelf, or in a rack using the rack mounting brackets provided.

NVRs and monitors generate heat and should be placed in a clean and well ventilated area. A high temperature environment will reduce the life span and reliability of the equipment. Additionally, the NVR is not weatherproof, so avoid exposure to liquids and excessive dust. Also, do not place objects along the sides or behind the NVR that will block cooling airflow through the chassis or prevent access to the back panel cabling.

### Uninterruptible power supplies

It is strongly suggested that power to the system be routed through an uninterruptible power supply (UPS). These devices will keep your security system running through most power outages, in addition to providing excellent surge and sag protection. The UPS should support the NVR and all cameras to ensure normal operation during abnormal power conditions.

## IP cameras monitored by the NVR

Your NVR connects to other devices through Ethernet networks. They must be accessible from the network(s) the NVR is connected to.

## Ethernet network considerations

The NVR contains two network interfaces: LAN1 and LAN2, which can be configured in one of three modes:

- **Net Fault-tolerance Mode:** LAN1 and LAN2 are connected to the same network and use the same IP address but only one interface (the one configured as Main) is active at any one time. If the main network interface failure, the device will automatically enable the other (standby) network interface to ensure the normal operation of the system.
- **Load Balance Mode:** In this configuration, LAN1 and LAN2 are connected to the same network and have the same IP address. They will share the load of the total bandwidth, which enables the system to provide two gigabit network capacity.
- **Multi-address Mode:** The parameters of LAN1 and LAN2 can be configured independently and connected to different networks. You can select LAN1 or LAN2 in the NIC type field for parameter settings. This configuration can be used in different ways. For instance, you can use one network to stream all camera video / data to and from the cameras and the other network to monitor the NVR, or access cameras on two networks and stream camera video / data from both to improve network bandwidth.

The NVR must be positioned within 100 meters (330 ft) to an Ethernet network switch or hub.

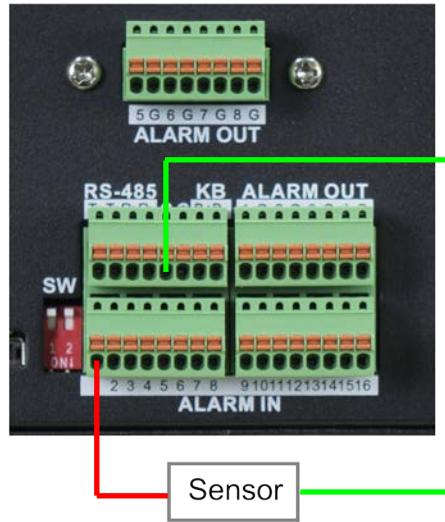
## Rack mounting the NVR

The NVR is provided with chassis rack mount brackets. If installing the NVR in a rack, install a bracket on each side of the NVR as shown below. Secure a bracket to each side of the NVR using three screws (provided). The NVR requires 3 rack units of vertical space.



## Wiring alarm inputs to the NVR

You can wire up to 16 alarm inputs to the NVR. Alarm input wiring connects to the RS-485, Alarm IN / OUT connector blocks on the back of the NVR.



Typical ALARM IN wiring

## Wiring alarm outputs to the NVR

The NVR provides 4 alarm output terminations. These terminations for each output are on the ALARM OUT connector block on the back of the NVR, and are labeled 1 - G, 2 - G, .. (G = ground termination).

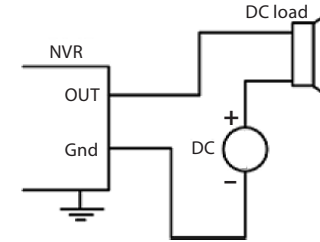
There are 4 jumpers (JP1, JP2, JP3, and JP4) inside the chassis on the alarm termination PC board, associated with ALARM OUT pins 1, 2, 3 and 4 respectively. Initially, these jumpers are in place. If connecting an alarm output to a DC loaded alarm out circuit, the jumper must be in place. If connecting the alarm output to an AC loaded alarm, the corresponding jumper must be removed. Example: If you connect an AC load to the alarm output 3 of the NVR, then you must remove the JP 3.

To remove a jumper for AC load alarm circuits:

1. Disconnect all cabling from the NVR.
2. Remove the NVR top cover.
3. Locate the jumper associated with the alarm output you are using for an AC load alarm, then remove it. Save the jumper for use later, if needed.
4. Reinstall the NVR top cover.

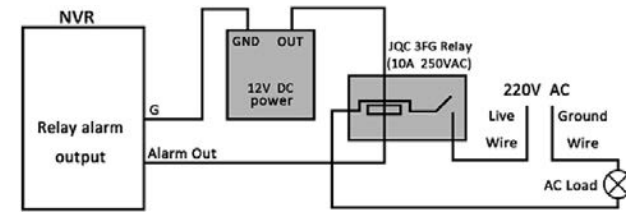
## DC load alarm output circuits

DC loads must operate within the limitation of 12 V / 1 A. To connect to a DC alarm output, use the following diagram:



## AC load alarm output circuits

To connect an AC load to an alarm output, a jumper, associated with the output on the alarm termination PC board, (within the chassis), must be removed. These jumpers shunt pin pairs J1, J2, J3, and J4 for alarm outputs 1, 2, 3, 4 respectively. Use an external relay for safety.



## Install a monitor, mouse, power

For the following steps, refer to the back panel photo above for the location of connectors.

1. Install and setup your monitor in accordance with the instructions provided with the monitor. Do not power it on at this time.
2. Cable the HDMI or VGA connector to your monitor's VGA or HDMI input. The HDMI interface provides the best performance.
3. Plug the mouse into the USB connector on the front or back of the NVR.
4. Connect the LAN1 and LAN2 connectors to a Ethernet network(s). Note that the NVR support two LAN ports that can be configured for net fault-tolerant mode (LAN1 and LAN2 ports are connected to the same network, and a rollover to a spare port occurs when a port fails), load balancing (LAN1 and LAN2 ports are connected to the same network, and bandwidth load balancing occurs between the two LAN ports), or multi-address (where the LAN ports can function independently on different networks).
5. Connect the power cord to the power connector on the back panel of the NVR, and then into a UPS (preferred) or surge protector.

**NOTE** Do not power on the NVR at this time.

## Installing an HDD in the NVR

If you purchased your NVR with pre-configured HDDs, each HDD is labeled for the drive bay they should be installed in. A diagram identifying the drive bay locations is provided on the inside of the front cover.

If you purchased your NVR without an internal HDD(s), you install at least one for the NVR to function properly. the NVR will accommodate up to 16 HDDs, each with up to 6TB.

The HDDs are installed behind the front panel. To install HDDs, do the following:

1. If necessary, unlock the front panel using the keys provided.
2. Simultaneously press the buttons at each end of the front panel to unlatch it, and then fold the panel down.



Follow recommended electrostatic discharge (ESD) guidelines while performing this procedure. Install the HDD in a static-free environment, wearing a certified ESD wrist strap. If a static free environment and ESD wrist strap is not available, touch the bare metal of the recorder chassis frequently when installing the drive to dissipate the static charge naturally generated on your skin and clothing and avoid touching electronic components.

3. Unpackage an HDD, and then install disk mounting handles on each side as shown below. Use three screws (provided) to attach each handle.



4. Slide the HDD into the drive bay as shown in the photo below, and then push the HDD in until it is fully seated. A snap can be heard when the drive locks into the bay. **NOTE:** If you purchased your NVR with pre-configured HDDs, install each HDDs in the bay location marked on the HDD.



HDD inserted into drive bay

To remove an HDD, squeeze the two disk mounting handles together, and then pull the HDD out of the bay.

5. Repeat steps 3 and 4 above until all HDDs are installed. A diagram showing the drive bay assignments is included on the inside of the front panel.
6. Close the front panel and then lock it, if necessary.

## Step 2. Connecting it together – initial system setup

1. Install the network cameras that will be monitored by the system.
2. Power on the NVR using the power on / off (I / O) switch on the back panel or the front panel ON / OFF switch.
3. Power on the monitor.

### NOTE

Some monitors have multiple inputs such including VGA, HDMI, BNC, etc. If you are using this kind of monitor, configure your monitor to display the input connected to your NVR (HDMI or VGA).

## Step 3. Using the Wizard for basic configuration setup

1. Power on the NVR. Normally, an Alibi logo splash screen appears within 2 minutes.



By default, the Setup Wizard will open automatically. Refer to the *Alibi Embedded Network Video Recorder Firmware V3.4.x User Manual* for incomplete instructions for using the Wizard and configuring and using your DVR.

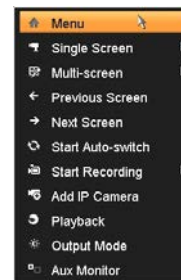
### Important Notes for using the Wizard:

- **Password:** When logging into the recorder for the first time, create a “**Strong**” administrator user password. Follow the on-screen instructions, and save this password and the GUID file created by the firmware in a secure location. **NOTE:** There is no factory default password for this device.
- **Date and Time:** Set the time zone, date and time correctly. All recorded video and capture (photo) files are time stamped.
- **Storage - HDD:** In the HDD Management wizard, if a new recorder is shipped with a pre-configured HDD, nothing needs to be done with it in this window. If you installed an HDD or replaced the HDD, that HDD needs to be initialized by the recorder before it can be used to record data. Select (check the box for) that HDD, then click **Init** to initialize the disk. **NOTE:** **Init** will erase all data from the disk and can take several minutes to complete. When the initialization is complete, click **Next** to continue.
- **Network Settings:** By default, the recorder acquires its network settings using DHCP (dynamic network settings). Depending on the configuration of the network, these settings may change. To improve remote access to the recorder, Observint recommends that you configure the DVR with fixed network settings. To easily change the DHCP acquired network settings to fixed network settings, un-check the **Enable DHCP** option in the network setup menu, and then click **Apply**.

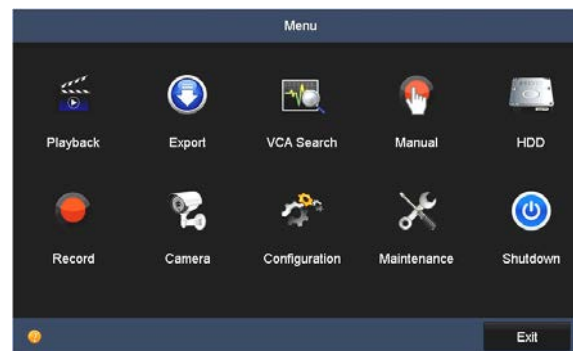
## 1.1 Access the Menu system

After the initial setup of your NVR using the Wizard, the Menus interface enables you to refine your configuration settings and expand the functionality of the system. To use most menus, the user must log into the NVR system, either locally or remotely, with administrative privileges.

To open the Menu system from the Live View screen, right click anywhere in the screen, then select **Menu**.



If ID Authentication is not disabled (see the **Menu | Configuration | General** settings), a login window will open. In the Login window, select a User Name with administrative privileges, enter its password, then click **OK**. A window of **Menu** icons will open.



For additional information about using your system, refer to the *ALIBI Embedded Network Video Recorder Firmware V3.4.x User Manual* provided electronically with your system.

### Specifications

Model	ALI-NVR7132R	ALI-NVR7164R
Number of Channels Supported	32	64
Supported Compression Format	H.265, H.264, H.264 OVC, MPEG4	
Recording Performance	320 Mbps max, 200 Mbps max when RAID is enabled	
Remote Viewing Output Capacity	256 Mbps max, 200 Mbps max when RAID is enabled	
Recording Type	Continuous, Schedule, Alarm, Motion Detection, POS, Event	
Supported IP Camera Resolution	12 MP / 8 MP / 6 MP / 5 MP / 4 MP / 3 MP / 1080p / UXGA / 720p / VGA / 4CIF / DCIF / 2CIF / CIF / QCIF	
Supported Playback Resolution	12 MP / 8 MP / 6 MP / 5 MP / 4 MP / 3 MP / 1080p / UXGA / 720p / VGA / 4CIF / DCIF / 2CIF / CIF / QCIF	
Synchronous Playback	16-ch @ 1080p, 4-ch @ 4K	
Video Output	VGA, HDMI	
HDMI Video Output Formats	HDMI1: 4K (3840 × 2160) / 60 Hz, 4K (3840 × 2160) / 30 Hz, 2K (2560 × 1440) / 60 Hz, 1920 × 1080 / 60 Hz, 1600 × 1200 / 60 Hz, 1280 × 1024 / 60 Hz, 1280 × 720 / 60 Hz, 1024 × 768 / 60 Hz HDMI2: 1920 × 1080 / 60 Hz, 1280 × 1024 / 60 Hz, 1280 × 720 / 60 Hz, 1024 × 768 / 60 Hz	
VGA Video Output Formats	VGA1: 2K (2560 × 1440) / 60 Hz, 1920 × 1080 / 60 Hz, 1280 × 1024 / 60 Hz, 1280 × 720 / 60 Hz, 1024 × 768 / 60 Hz VGA2: 1920 × 1080 / 60 Hz, 1280 × 1024 / 60 Hz, 1280 × 720 / 60 Hz, 1024 × 768 / 60 Hz	

Two Way Audio Input	1-ch, RCA (Linear, 1 kΩ)
Audio Output	2-ch, RCA (Linear, 1 kΩ)
Export Formats	.MP4
Ethernet	2x Gigabit RJ-45 self-adaptive Ethernet interface
USB	2x USB 2.0 (front panel), 1x USB 3.0 (back panel)
Hard Drive Interface	SATA
Hard Drive Capacity	16x HDDs max, each with up to 6TB.
RAID	0 / 1 / 5 / 6 / 10
eSATA	1x eSATA interface
Serial Interface	1x RS-485, 1x RS232
Alarm Input	16
Alarm Output	8
Operating System	Embedded Linux
Security	Password Protection
Protocols	IPv4, TCP / IP, UDP, HTTP, UPnP, RTSP / RTP / RTCP, SMTP, FTP, DHCP, NTP, DNS, ONVIF, HTTP multipart
Power Requirements	100 ~ 240 Vac, 6.3 A, 50 ~ 60 Hz
Max. Power	300 W
Power Consumption	≤ 45 W (without HDD)
Weight	27.6 lbs. (without HDD)
Dimensions (in.)	19.5 W" D × 17.5" D × 5.7" H
Operating Temperature	14 °F ~ 131 °F
Color / Material	Black
Material	Aluminum
Approvals	CE, FCC, RoHS, UL
<b>Remote Client System Requirements</b>	
Operating System	Microsoft® Windows® 2000, 2003, XP, Vista, 7, 8, 10 (32-bit and 64-bit versions) / Apple® Mac OS X® 10.5 (Intel® x86 only), 10.6 and 10.7
Web Browser	Microsoft Internet Explorer® 8.0, 9.0, 10, and 11 (32-bit version) and 3.6, Safari® 5 and higher"
Software Requirements	Web Component Installation
Mobile Client OS Platform	iOS, Android™ (Alibi™ Witness)
<b>Supplied Accessories</b>	
	Quickstart Guide (this document) USB Mouse 110 Vac Power Cord Hard Drive Mounts and Screws Rack Mount Brackets 6 ft HDMI Cable 6 ft Ethernet Patch Cable