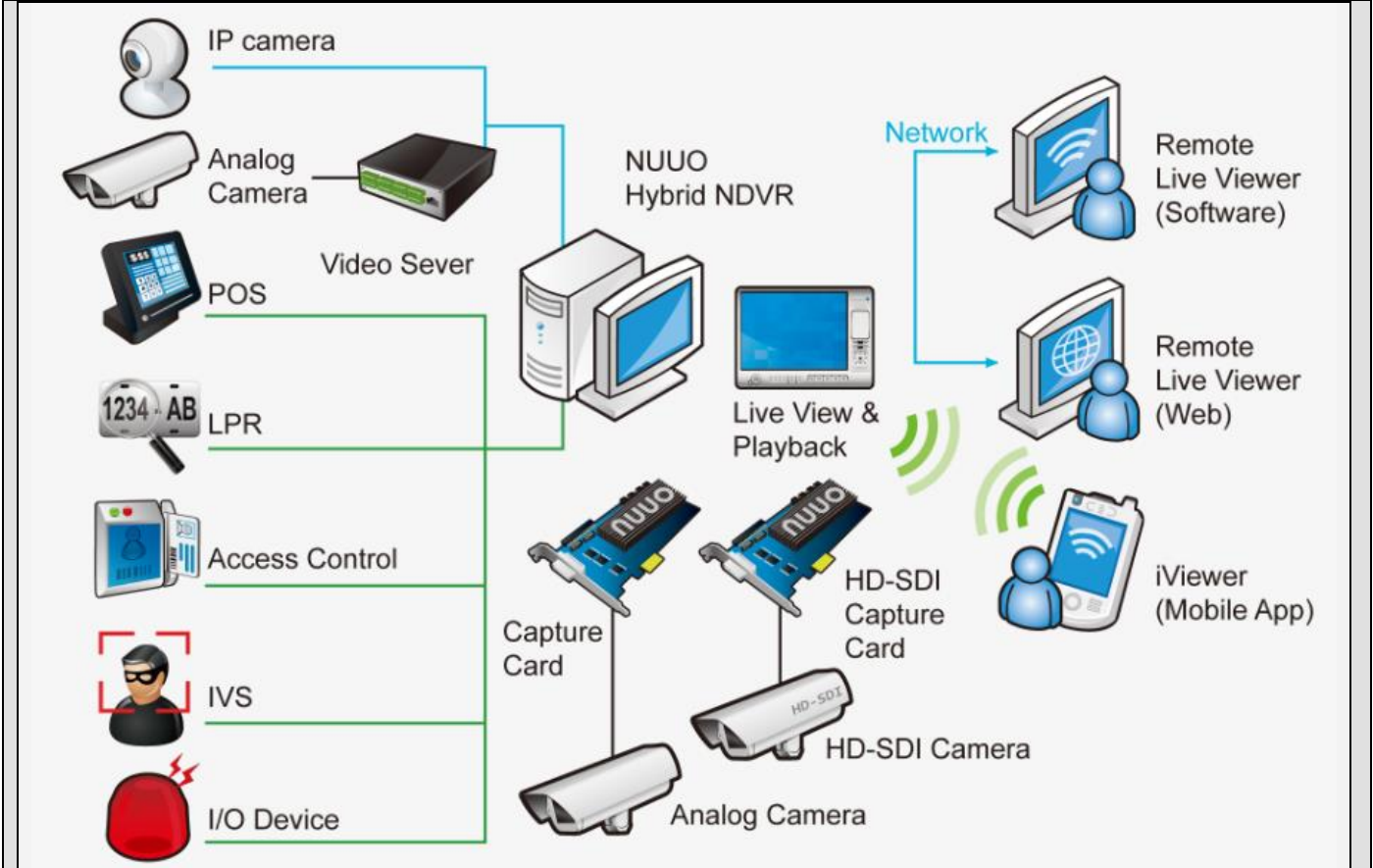


NUUO DVR Card	SCB 8000 series	SCB 7100 series		SCB 7000S series			SCB 6000S series		
Model	8004HD	7108	7116	7004S	7008S	7016S	6004S	6008S	6016S
Video Input	4	8	16	4	8	16	4	8	16
Audio Input	0	8	16	4	8	16	4	8	16
Maximum Cards	4 Cards	1 Card	1 Card	4 Cards	4 Cards	4 Cards	4 Cards	4 Cards	4 Cards
Maximum analog input per system	16***	16***		64			64		
Display Rate (FPS)	120/100	240/200	480/400	120/100	240/200	480/400	120/100	240/200	480/400
Recording Rate @CIF (FPS)	720p@120	240/200	480/400	120/100	240/200	480/400	120/100	240/200	480/400
Recording Rate @D1 (FPS)	1080p@120	240/200	480/400	120/100	240/200	480/400	30/25	60/50	120/100
Video Resolution	NTSC	704x480; 352x240; 176x120		704x480; 352x240; 176x120			704x480; 352x240; 176x120		
	PAL	704x576; 352x288; 176x144		704x576; 352x288; 176x144			704x576; 352x288; 176x144		
TV Output Rate	w/ DP***	RCA and DP: 10fps		N/A			N/A		
	w/o DP***	RCA: 25fps		N/A			N/A		
	Only DP***	DP: 14fps		N/A			N/A		
Compression Format	HW H.264	H/W H.264		H/W H.264			H/W H.264		
Interface	PCI-E x1	PCI-E x1		PCI-E x1			PCI-E x1		
Maximum I/O Card	4	2	4	4	4	4	4	4	4
Available I/O Box	Support	Support		Support			Support		
Hardware Watchdog	Support	Support		Support			Support		
Dimension (W x H, mm)	178 x 126	216x126	216x126	188 x 121	188 x 121	188 x 121	188 x 121	188 x 121	188 x 121
Warranty	2-year*	2-year*		2-year*			2-year*		
System Minimum Requirements (per card)									
OS Supported	32bits: MS Windows XP pro SP3 / Vista SP1 / Win 7 SP1 / Win 8 / Win 8.1 64bits: Win 7 SP1/ Win Server 2008 R2 / Win 8 / Win 8.1 / Win Server 2012 R2								
CPU	Intel Core 2 DuoE5300	Intel Core 2 QuadQ8400	Intel Core 2 DuoE5300	Intel Core 2 DuoE5300					
RAM	2 GB								
	Above RAM amount is recommended based on one DVR card installation. For system with multiple DVR cards, stacked 1G RAM for system under 16ch, 3G RAM for system under 32ch, and 4G RAM with 64 bit OS for system with 32ch or above are recommended.								
HDD	250 GB								
Mother-board	Intel P55, H55, X58, P45, P43 chip, MB vendor ASUS, Gigabyte, or MSI with Intel Chipset recommended								
Display	ATI Radeon HD 4350 or above (ATI Driver V11-5 recommended ATI Driver V10 not support)								
Note									
Note	* The warranty in US area is 3-year. ***DP stands for digital output *****7100 and 8004HD cards can be installed with 6000S/7000S to have more analog inputs per system *****8004HD card support 720p25/30, 720p50/60, and 1080p25/30 transmission over at least 100m of RG59 coaxial cable. For further information please refer to http://www.highdefcctv.org/hdctv-specification								

System Diagram



Main Features – version 6.1.1

- Supports up to 96 channels (*1*2IP lite support up to 32 channels)
- Supports H.265, H.264, MPEG-4, M-JPEG, MxPEG compression format
- Support IP cameras and video encoders
- Up to 192 channels remote live view depends on server and client hardware configuration
- Supports 70 brands of IP cameras
- Supports 31 languages
- RTSP streaming to get live view and recordings
- Support camera multi-stream configuration
- Support camera edge record
- Run as Windows Service
- Support E-map
- Support two-way audio
- Digital PTZ and multi-view
- New Web Client support Report Service for Counting Result and Heat Map
- Supports digital watermark
- Remote playback, remote backup, remote I/O control and remote desktop configuration
- Supports iPhone, iPad and Android mobile clients
- Supports video auto backup
- Essential IP Camera Configuration
- Help Manager for feature explanation
- Diagnostic Service for easy troubleshooting
- IVS Motion Scramble on Live View
- Backup / Export Video Encryption
- Triple monitor display
- Support NUUO Fisheye Dewarp with calibration
- Support setup different recycle criteria for different recording
- Support dual password validation (4-eye-policy)

- Support all-in-one I/O box: A08
- Advanced IVS function with 4 types counting filter and 8 types surveillance suite*¹*²
- Privacy Mask*¹*²
- Windows Active Directory*¹
- POS, I/O device, LPR and Access Control integration (*²IP lite does not support POS, LPR)
- Boosting Recording*²
- Basic counting application*²
- Support auto report counting results*²
- Support run Mainconsole software on selected monitor*³
- OnGuard Software watchdog*²
- Failover Recording Server*²
- Intelligent playback system with 5 video analytics searches*²
- Supports transcode and multiple stream profiles*²
- Supported by NUUO Central Management System*²
- Smart detection of 6 events with 11 instant responses*²
- Instant Playback*²
- Support single monitor for local configuration only*³
- Supports SD and HD-SDI analog*³
- Support Camera IVS Event: Edge Motion (Any Zone), Edge Motion (Individual Zone)*⁴

*¹To optimize the recording performance, it is recommended to keep the system CPU loading under 80% after complete all settings. Main factors of CPU consuming are video transcode, Advance IVS, local display and smart guard. Please refer to NUUO Calculator on <http://support.nuuo.com/calculator/> for performance estimation.

*²Functions or spec limited on IP lite version.

*³Functions or spec limited on CT-8000IP

*⁴Refer Mainconsole camera support list for supported models.

Specifications Description

System, Setting, Management and Integration:

- **Open Platform:** Supports 70 brands of IP cameras,, megapixel cameras and video servers from 97 brands of network camera manufacturers; supports H.265, H.264, MPEG-4, MJPEG, MxPEG video formats; integrates various systems including point of sale (POS) and I/O devices, license plate recognition and access control system. SDK for access control integration available upon request.
- **Multi-site/Multi-server*²:** Each NVR server supports up to 96* channels, from IP cameras and video encoders with analog cameras, and can be managed by NUUO CMS or remote live view client for centralized management in multi-site projects.
* The maximum number of camera connections depends on the server's hardware configuration and the total bit rate of the IP cameras. Please check NUUO Calculator on <http://www.nuuo.com/calculator/>
- **Support Camera Multi-stream:** NVR server is able to receive 3 camera stream and do configuration.
*Please check latest Device Pack for configuration support.
- **Support IP camera essential settings:** To quick setup important setting on unified server interface, no need to access camera web separately.
- **Disk Load Balance:** NUUO NVR improves recording performance to utilize several disks and dynamically distributes the video loads among the disks to improve throughput.
- **Multiple Video Clients*²:** NUUO NVR server can stream video to multiple Remote Live Viewers, web clients and mobile clients simultaneously.
- **Intelligent Video Analytics:** NUUO IVS supports 6 types of video analytics including general motion,

missing object, camera occlusion, foreign object, focus lost and signal lost. Each IVS alarm can trigger up to 11 unique instant notifications include push notification on mobile.

- **Advanced Intelligent Video Surveillance*²:** NUUO advanced IVS supports 3 types of counting filters including people counting, vehicle counting, stabilizer and tamper detect and 8 types of surveillance suite including presence, enter and exit, appear and disappear, dwell, tailgating, stopping, direction, tamper, and abandoned/removed object detect. License transfer for advanced IVS is also supported.
- **Intelligent PTZ:** Joystick support on PTZ cameras and software enabled digital PTZ function are both available in NUUO NVR. Preset points and patrol functions are also available on many camera models.
- **GUI Recording Schedule:** Intuitive GUI recording schedule featuring continuous recording, motion recording and the 6 unique event recording modes. Users can define the recording schedule for each camera on a day by day basis.
- **Triple Monitor:** Up to 64*¹ channels of live view video can be displayed per monitor. Monitor 1 and monitor 2 can both display live view video or act as alarm monitor while the 3rd monitor can be used for playback.
- **Support run Mainconsole on selected monitor:** NVR can be run on selected monitor without interrupting other software operation.
- **Transcoding:** Record and display live video at different frame rate and resolution.
- **Boosting Recording*²:** Dynamically boost recording quality on motion and other events to optimize recording storage.
- **OnGuard Software Watchdog*²:** NUUO OnGuard brings NVR Server back from the unresponsive state such as a hang and neglects restore to normal operation.
- **Failover Recording Server*²:** Failover server can be on standby for a single or a group of Recording Servers. Automatic switch to on standby server upon the failure or abnormal termination of the Recording Server ensure continuous system availability.
- **Advanced E-Map:** Capability to import custom image file, place the cameras and I/O on the map to indicate where events are being triggered with a convenient video preview window.
- **User-Friendly Interface:** GUI recording schedule, camera drag and drop, I/O control menu and PTZ control menu.
- **Automatic Camera Model Detection:** automatically search for all available IP cameras within the network (camera must support UPnP protocol). For cameras that don't support UPnP, users can manually insert the IP camera. The auto detection function will help the user to find the brand and model of the camera after specifying its IP address.
- **Counting Application*²:** intelligent 2-way (in and out) counting of object, people and traffic.
- **Support Auto Report Counting Results*²:** NVR can upload the people counting data to ftp or send via email.
- **User Authority Management:** Support unlimited number of users with detailed and fully customizable user privilege on each user.
- **Windows® Active Directory*²:** Synchronized with Windows® Active Directory server to manage user privilege and control of camera action.

- **Network Flow Monitor:** Data streaming bandwidth of each remote client connection to the NVR server can be monitored and blocked if flow rate is too high.
- **Auto Recycle:** Automatically recycle recording files when the storage is full. Separate recycle schedule between recordings and varies log files. Also, Support setup different recycle criteria for different recording files.
- **SDK Integration Support*²:** Open SDK for integration with third-party systems such as access control, automation, burglar alarm, video analytics and others.
- **RTSP Service:** Mainconsole to provide live view and playback streaming service to client application via RTSP protocol.
- **Upgrade notification:** Automatically obtain upgrade notification from NUUO website to download the latest version.
- **Fisheye Dewarp:** NUUO Fisheye Dewarp and ImmerVision IMV1-1/3.
- **Help Manager:** Quick link beside function buttons, to browse the detail descriptions in user manual
- **Diagnostic Service:** Collect system information via in one click, and provide the data for troubleshooting.
- **IVS Motion Scramble on Live View:** Pixelate (put mosaic on) the object when detected on live view.
- **Backup / Export Video Encryption:** Password control for backup or exported video data.
- **Run as Windows Service:** Run Mainconsole in background without need to login windows.

Live Display

- **Multi-view:** NUUO NVR can duplicate the same live view video onto multiple channels and digitally zone in to see the details of different spots on cloned channels without losing the original live view video.
- **Intelligent PTZ:** Joystick support on PTZ cameras and software enabled digital PTZ function are both available in NUUO NVR. Preset points and patrol functions are also available on many camera models.
- **Monitor Resolution:** Supports 1024x768, 1200x900, 1280x1024, 1366x768, 1440x900, 1600x1200, 1680x1050, 1920x1080, 1920x1200 screen resolutions
- **Advanced E-Map:** Freedom to import custom image file, place the cameras and I/O on the map to indicate where events are getting triggered with a convenient video preview window.
- **Bandwidth Monitor:** Monitor and display the bandwidth usage of individual cameras and remote viewing clients.
- **Two-way Audio:** Listen and record audio from camera's microphone. Talk to IP camera's speaker.
- **Instant Playback*²:** Allow to play the last few minutes of any live video channel on MainConsole and Remote Live View
- **Privacy Mask**:** Protect privacy of the sensitive image by blocking out sensitive areas from view and covering the areas with black boxes in live, playback and exported video.

Playback, Search, Export and Secure Data

- **Post-Recording Processing:** Search for 5 types of different analytics events, digital PTZ and video enhancement tool are all available in playback.
- **Multi-Channel Playback:** Play up to 16 channels of recorded video simultaneously both locally and remotely. Forward playback at 1/16x, 1/8x, 1/4x, 1/2x, 1x, 2x, 4x, 8x, 16x, 32x, 64x.
- **Video Enhancement:** Fine tune the image's visibility, sharpen, brightness, contrast or even grey scale.
- **Intelligent Search:** Search for 5 different special events (general motion, missing object, foreign object, camera occlusion and signal lost) in recorded files with date, time and log file.
- **Video Export:** Take a snapshot of the recording in JPEG/BMP format or export a section of the video in "AVI" and "ASF" format.
- **Auto and Manual Backup:** Schedule or manual backup the recording for archiving purposes or backup the recording with an embedded player to watch at a separate location. NVR supports both local and remote backup to local HD, CD, and DVD.
- **Log data:** Unusual event, system log, counting application, POS log and export and backup can export to "xls" or "txt" file
- **Watermark:** Protect for original recording from alternation with our watermark verification tool.
- **DBTool:** Reconstruct, repair or relocate the recordings in local drive, or external drive.
- **Support dual password validation (4-eye-policy):** NVR can setup a second password so the user needs to input a second password to run certain operation. This mechanism prevents user access recordings or execute video backup without permission.

Remote Operations

- **Multiple Live View Display:** Remote Live Viewer support streaming live video from multiple NUUO servers (NVR, DVR, and NDVR) simultaneously. It supports multiple monitors to show 128 (**, 32 for IP lite) channels simultaneously. Each monitor up to 64 channels in maximum.
* The maximum number of camera connections depends on the server's hardware configuration and the total bit rate of the IP cameras. Please check NUUO Calculator on <http://support.nuuo.com/calculator/>
- **Live View Buffer:** Remote Live Viewer support live view buffer time up to 3 seconds to have smoother viewing experience if network bandwidth is unstable. *Please refer v6.1.1 release note for supported camera model.
- **Multi Playback Channels Display:** Remote playback of 16 channels recording from any one of the NUUO servers (NVR, DVR, and NDVR).
- **Intelligent PTZ:** Joystick support on PTZ cameras and software enabled digital PTZ function are both available in NUUO NVR. Preset points and patrol functions are also available on many camera models.
- **I/O Event Control:** Easy to use input and output control panel to remotely trigger digital outputs and monitor input status.

- **E-Map:** A map view of where each camera and I/O devices are located with a convenient preview window.
- **Two-way Audio:** Listen and record audio from camera's microphone. Talk to IP camera's speaker.
- **Remote Backup:** Backup the video into .DAT format with a NUUO player attached for easy achieve and viewing purposes.
- **Web Client:** Display up to 64 channels of live video stream or 16 channels of playback in Internet Explorer from any single NUUO server. New Web Client support Report Service for Counting Result and Heat Map. *Support direct login Mainconsole for live view and playback with embedded ID/PW on web URL.
- **Mobile Client:** Support iPhone, iPad and Android application client to live view video and control PTZ functions.
- **Fisheye Dewarp:** NUUO Fisheye Dewarp and ImmerVision IMV1-1/3.

Extension Service

- **Central Management System*²:** Ultimate central monitoring solution for grand scale projects and projects with multiple sites. Fully compatible with all NUUO servers (NVR, DVR, NDVR and NVRmini).
- **Remote Desktop Service:** Embedded remote desktop server that will host for any NUUO remote desktop clients to remotely configure the NVR software (remote desktop client is installed separately).

External Device

- **Point of Sale (POS)*²:** NUUO Point of Sales system works on NUUO NVR by overlaying the transaction text from cash register onto live video channels. All POS recordings are searchable.
- **External I/O Capacity:** Support USB (SCB-C08) and Ethernet (SCB-C31A, SCB-A08) converter. Please refer to I/O box section: C24/C26/C28 for more details.
- **Panomorph PTZ Camera (360°):** Integrates ImmerVision Lens (IMV1-1/3 Lens supported) to view Live, record and playback the complete 360x180 FOV. Users can easy to detect, track and analyze throughout the entire area.
- **Vivotek Fisheye Camera:** Integrates Vivotek fisheye camera FE8171V equipped with a fisheye lens for 180° panoramic view (wall mount) or 360° surround view(ceiling/floor/table mount) without blind spots.
- **3rd Party Integration**:** Metadata Plugin technology support 3rd party software including license plate recognition, access control and so on. Though Metadata Plugin, users can manage metadata by recording real time information in databases which can describe events that link to video and audio. The system provides smart search tool to retrieve information and recorded video. *Metadata transaction can be stored independently.

Smart Guard:

- **Smart detection** 11 server and camera events, 14 different user-defined POS events, digital input events and 4 system events. The combination of our smart guard events is a powerful tool to combat vandalism and provide a platform for operators to monitor and respond to live events immediately.

- Server Events:
 - General Motion
 - Missing Object*²
 - Foreign Object *²
 - Focus Lost
 - Camera Occlusion*²
 - Signal Lost
 - Camera Events:
 - Edge motion (Any zone)
 - Edge motion (Individual zone)
 - Signal Digital Input Event
 - System Event**:
 - System alarm on Disk Space Exhausted
 - System alarm on System Health Unusual (CPU temperature)
 - System alarm on Resource Depleted (CPU loading)
 - System alarm on Network Congestion
- **Instant alarm notification** is the fastest and most cost efficient way to automatically respond to any smart detection event.
- 11 automatic instant alarm responses:
 - On Screen Display
 - Play Sound
 - Send E-mail
 - Phone Call*²
 - PTZ Preset Go*²
 - Signal Digital Outp*²
 - Send a SMS message*²
 - Send to Central Server*²
 - Send Snapshot to FTP*²
 - Popup E-Map on Event*²
 - Push notification on mobile
 - **Schedule-based:** Users can define the smart guard schedule for each event on a day by day basis

*¹The maximum number of camera connections depends on the server's hardware configuration and the total bit rate of the IP cameras. Please check NUUO Calculator on <http://www.nuuo.com/calculator/>

*²Functions or spec for IP lite version.

Specifications Table

Model	SCB-IP+ Series			
SCB-IP License	4, 8, 12, 16, 25, 32, 36, 64			
Maximum Channel	96			
IP Camera Brand(s) Supported	3Svision	ACTi	Alarm.com	American Dynamic
	AMTK	Arecont	Aver	AXIS
	BASLER	Beward	Bosch	Brickcom
	Canon	Camtron	Centrix	CISCO
	CNB	Dahua	Dallmeier	Dlink
	DlinkCN	Dynacolor	Eneo	Etrovision
	EverFocus	Fine	Flir	Forenix
	GE	GNS	Grundig	Guarden
	Guardeon	HIKVISION	HiTRON	Honeywell
	iCANTEK	IP Power	Jetstor	JVC
	LevelOne	LG	LONGSE	MegaIP
	Messoa	MIWI-URMET	Mobotix	ONVIF
	Panasonic	Pelco	QVS	Rover
	Samsung	SANTEC	Secubest	Shany
	Sony	Sunell	TP-LINK	Trendnet
TRUEN	UDP	USAG	Viakom	

NUUO NDVR Specification



Version 6.1.1

	VisionHitech Wavekrom	Vista Zavio	VIVOTEK	WatchNET
Digital PTZ	Supported in Live view and Playback			
Multiple Show	Supported in Live view			
Triple Monitor	Enable maximum 96 channels (**32 channels for IP lite) with two screens to show live video and viewer recording video on third monitor.			
Screen Resolution	1024x768, 1200x900, 1280x1024, 1366x768, 1440x900, 1600x1200, 1680x1050, 1920x1080, 1920x1200			
Audio & Video Recording	Synchronized audio & video recording.			
Screen Division	1/4/6/9/10/13/16/25/36/49/64 divided screen.			
Compression Format	H.265, H.264;MPEG-4;M-JPEG;MxPEG			
Recording Type	Continuous record, record by digital input, motion record, event recording, boosting recording, record by schedule, manual record			
Playback Channels	Playback Maximum 16 channels under several modes & full screen.			
Playback Control	Playback, backward playback, fast forward/backward playback.			
Auto Recycling Recording	Auto recycling when storage disk is full. Able to set keep X days for different recording file.			
Available I/O Function	Supporting I/O Box			
Available POS Device	SCB-C31A RS232 to Ethernet Convertor			
Software Watchdog	OnGuard			
Hardware Watchdog	SCB-8000, SCB7100, SCB7000S/6000S, SCB7000/6000 series (**IP lite do not support DVR cards.)			
System Minimum Requirements				
OS Supported	32bits: MS Windows XP pro SP3 / Vista SP1 / Win 7 SP1 / Win 8 / Win 8.1 64bits: Win 7 SP1/ Win Server 2008 R2 / Win 8 / Win 8.1 / Win Server 2012 R2			
CPU	Intel Core 2 Duo E5300			
RAM	2 GB			
HDD	250 GB or above			
Motherboard	Intel P55, H55, X58, P45, P43 chip, MB vendor ASUS Gigabyte or MSI with Intel Chipset recommended			
Display	ATI Radeon 4650 or above (ATI Driver V11-2 recommended,)			
External Storage	DAS, ISCSI (http://support.nuuo.com/mediawiki/index.php/Recommended_hard_drives)			
Note				
* The maximum number of camera connections depends on the server's hardware configuration and the total bit rate of the IP cameras. Please check NUUO Calculator on http://www.nuuo.com/calculator/				
Supported Language				
Albania	Bulgarian	Chinese (Simplified)	Chinese (Traditional)	
Croatian	Czech	Danish	Dutch	
English	Farsi	Finnish	French	
German	Hebrew	Hungarian	Italian	
Japanese	Korean	Norway	Polish	
Portuguese (Brazil)	Portuguese (Portugal)	Romanian	Russian	
Serbian	Slovak	Slovenian	Spanish	
Swedish	Thai	Turkish		

**Functions or spec for IP lite version.