VIVOTEK

ND8212W
4-CH Embedded Wi-Fi NVR

C series

H.264 • 1x HDD • HDMI • Wi-Fi • VIVOCloud • ONVIF •
Support 4CH Wi-Fi + 4CH Wired

VIVOTEK's ND8212W is a H.264 4-CH Linux-based standalone Wi-Fi NVR that supports a single 3.5" HDD up to 6TB. The ND8212W supports remote access via VIVOTEK's VIVOCloud and iViewer apps for both iOS and Android mobile devices, enabling users access to their video anytime, anywhere. The VIVOCloud app provides instant push notification and direct video playback functionalities when triggered by an alarm notification, providing seamless security for small-sized video surveillance applications.

Furthermore, the ND8212W is fully integrated with VIVOTEK's VAST/VAST 2 VMS, so users can enjoy the easy-to-use IP surveillance system to protect lives and property more efficiently. With a compact size and fan-less design, the ND8212W is ideal for any small-scale video surveillance installation.

Key Features

· H.264 Compression Technology
· Up to 4CH Wi-Fi + 4CH Wired IP Camera Input
· HDMI Video Output up to 4K Resolution
· 1 x 3.5" SATA HDD up to 6TB
· Up to 8MP Camera Liveview and Playback
· VIVOCloud App & Portal for 24/7 Viewing

· Easy Connection with IP Cameras and Quick Auto Setup
· Instant Playback Fisheye Dewarp
· 2.4Ghz 802.11 b/g/n Wi-Fi Connection
· ONVIF Compliance (Project Support Function)
· Compact Size with Fanless Design

Highlight Features

VIVOCloud App & Portal for 24/7 Viewing

The free VIVOCloud app makes surveillance lightweight and portable, ensuring efficient operation. The latest P2P technology makes remote access even more convenient, by simply scanning the QR-code and installing the app, users can view live streams and play recorded clips with the intuitive interface anytime, anywhere. Armed with the Push Notification function, users will directly get an alert message on their Android/iOS mobile device and directly playback the video to check for any suspicious activity.

VIVOCloud
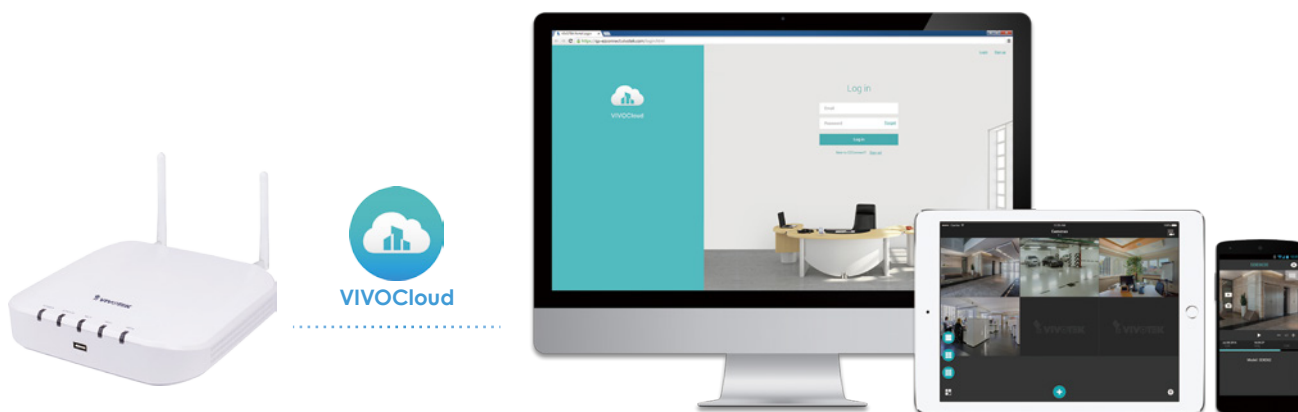
Easy Connection with IP Cameras and Quick Auto Setup

In order to provide users a highly intuitive experience, WPS allows for the IP cameras' positions and connects to the NVR without entering long passphrases. Auto Setup Wizard then conveniently sets up a centralized configuration to reduce connection times to within 4 minutes.

WPS connects to the "NVR and IP Cameras" versus "Router and IP Cameras". It not only saves time up to 60%, but also greatly reduces the difficulty of the device's settings. Honest to say, users may not know what happens between the connection of the NVR and the router.

00:04

4 Min.

Highlight Features

Enjoy the Benefits of Wi-Fi

This next generation NVR supports up to 4 IP cameras via 2.4Ghz Wi-Fi connection.

• Easy installation without spending more huge cost and time.

• No drilling and network socket needed.

• Less potential damage and more aesthetically pleasing.

• Easily move or reposition after installed.

4 Display Modes for Fisheye Dewarp

VIVOTEK's fisheye camera is able to provide 360 degree coverage for wide, open areas, such as retail stores, offices and more. VIVOTEK's NVR offers four display modes for one fisheye network camera simultaneously:

LiveView, Playback, Snapshot and Instant Playback. With VIVOTEK's unique technology Instant Playback Dewarp, users can quickly review the image and react immediately.

Dewarp

▶ Live View

◀ Instant Playback

◀◀ Playback

Snapshot
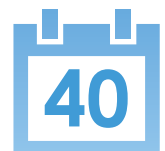
4CH 1080P Resolution Video Storage over 40 Days

To provide both high-quality video and longer duration storage, the NVR allows users to effectively record 1080P resolution video continuously for up to 40 days without any extra monthly fee. This is the best choice to satisfy users' recording needs. (video throughput: 3M)
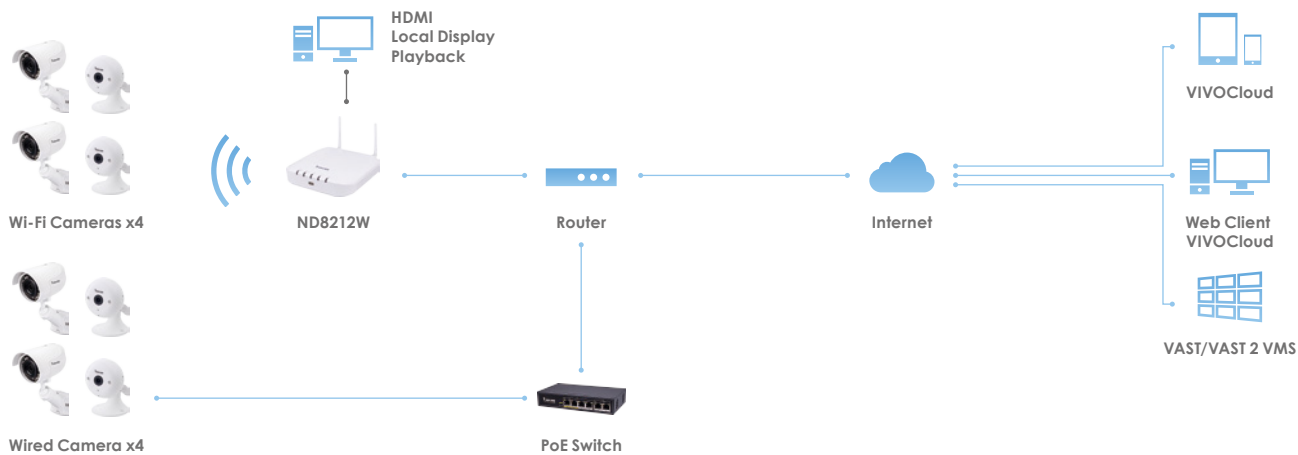
3.5" 6TB HDD

24

24/7
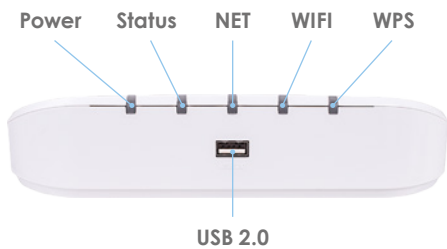
40

40 Days

System Structure

Wi-Fi/Wired Cameras with WAN Solution

HDMI
Local Display
Playback

Wi-Fi Cameras x4

ND8212W

Router

Internet

VIVOCloud

Web Client
VIVOCloud

VAST/VAST 2 VMS

Wired Camera x4

PoE Switch

Mechanical Information

Front View

Power   Status   NET   WIFI   WPS

USB 2.0

Back View

DC 12V   NET   USB 2.0   RESET/WPS

HDMI
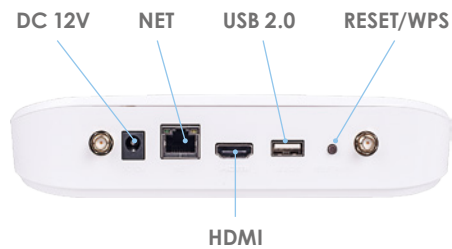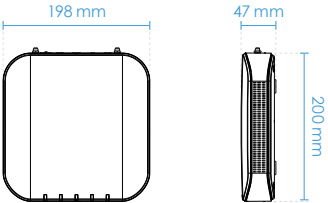
Technical Specifications

Hardware Information

Model	ND8212W

System

OS	Embedded Linux
CPU	ARM Processor
Flash	256 MB
RAM	1GB
Watchdog	Hardware + Software
Power Restoration	System Restart Automatically after Power Recovery

Storage

HDD Devices	Internal x1
HDD Max. Capacity	6TB x1
Disk Management	Create, Format and Remove Disk HDD S.M.A.R.T

Video & Audio

Video Output	HDMI x1
Resolution	3840x2160, 1920x1080, 1280x720
Graphics Decoder	Hardware decoding
Decoding Capacity	H.264: 3840x2160 @ 30 fps (1CH) 1920x1080 @ 120 fps (4CH) 1280x720 @ 240 fps (8CH)
Camera Position	Change the viewcell position on the Live View screens

External Interface

USB Interface	Front: 1 (USB 2.0) Back: 1 (USB 2.0)
Audio	HDMI Audio Output

Network

Network Interface	10/100Mbps Ethernet (RJ-45) x 1
Wi-Fi	2.4Ghz 802.11 b/g/n
Protocols	IPv4, TCP/IP, HTTP, HTTPS, UPnP, RTSP/RTP/ RTCP, SMTP, FTP, DHCP, NTP, DNS, DDNS, IP Filter, WPS

Power

Power Input	DC 12V 3A
Power Consumption	Max. 15.6 W

LED Indicator

LED Indicator	Power, Status, NET, Wi-Fi, WPS

Mechanic

Form Factor	Desktop
Operation Buttons	Reset/WPS (Back)
Dimensions	198 (W) x 200 (D) x 47(H) mm
Weight	560 g (without HDD)
Operating Temperature	0°C ~ 40°C (32°F ~ 104°F)
Humidity	0 ~ 95%

General

Safety Certifications	CE, LVD, FCC, VCCI, C-Tick, MIC, NCC, BSMI
Warranty	24 months

Client PC Requirements

Operating System	Microsoft Windows OS: XP/Vista/7/8/10/2008/2012
CPU	Intel Celeron or above
Memory	2 GB or above
Ethernet	10/100Mbps
Display Resolution	1024x768 pixels or above
Web Browser	Internet Explorer 10 (32 bit) or above
Software AP	Installation Wizard 2, Shepherd, VAST, VAST 2
Mobile/Tablet App	VIVOCloud, iViewer (iOS) VIVOCloud, iViewer (Android)
Cloud Connection	VIVOCloud Portal

Accessories

Others	Power adaptor, QIG, 8 x HDD screw, 2 x HDD Brackets,1 x USB Mouse, 2 x 2.4Ghz Wi-Fi Antenna

Dimensions

198 mm   47 mm   200 mm

Software Information

Record

Maximum Channel	Up to 8 (4CH Wi-Fi + 4CH Wired)
Record Throughput (MB)	24 Mbps, default settings: 1920X1080 @ 32 fps (4CH)
Network Throughput (MB)	40 Mbps
Audio Format	G.711, G.726

Technical Specifications

Video Format	MJPEG, H.264
Video Resolution	UP to 8MP Camera
Recording Time (sec.)	Pre-Record: 5 (Max. 10) Post-Record: 20 (Max. 300)
Recording Stream	Single
Recording Mode	Continuous, Schedule, Manual, Event, Activity Adaptive Streaming
Recording Setting	Recycle (unit: day)
Recording Path	Local Path
Record Video Format	3GP
Watermark	Supported
Schedule Backup	Supported

LiveView (Local Display)

Stream Application	Constant/Auto Adaptive Stream
LiveView Display	8 Channels (4CH Wi-Fi + 4CH Wired) Multiple Layout Display: 1x1, 3V, 2x2, 3x3, 1P+3, 2P+3, 1M+5, 1P+6
Monitor Enhancement	OSD Display (NVR), OSD Display (Camera), Camera Information, Remote I/O Control, Event Notification, Aspect Ratio, Fisheye Dewarp (1O, 1P, 1R, 1O3R, 1P3R, 1O8R)
PTZ Control	Panel Control/Joystick
PTZ Operation	Direction Control, Home, Iris, Preset, Patrol (Group), PiP Control

Playback (Local Display)

Playback Display	4 Channels Multiple Layout Display: 1x1, 2x2, 1P+3, 1V+3
Playback Control	Regular (Play, Pause, Stop), Rewind, Next/Previous Frame, Speed Control, Calendar, Event, Timeline, Timeline Scale, Thumbnail (Storyboard)
Video Search	By Calendar, Date/Time, Alarm
Thumbnail Explorer (Storyboard)	Listing the thumbnail of recorded video (Max. 2 CH)
Monitor Enhancement	OSD Display (Camera), Event Notification, Aspect Ratio, PiP Control, Fisheye Dewarp (1O, 1P, 1R, 1O3R, 1P3R, 1O8R)
Snapshot	JPEG
Video Clip Export	EXE

LiveView (Remote)

Stream Application	Stream Selection
Audio Capability	One Way
LiveView Display	4 Channels Multi Layout Display: 1x1, 2x2, 1V+3
Monitor Enhancement	OSD Display (NVR), Drag & Drop, Image Freeze, Audio Control, Remote I/O Control, Event Notification, Bookmark, Fisheye Dewarp (1O, 1P, 1R)

PTZ Control	Panel Control
PTZ Operation	Direction Control, Home, Zoom, Focus, Iris, Preset, Patrol (Group), PiP Control
Snapshot	JPEG

Playback (Remote)

Playback Display	4 Channels Multiple Layout Display: 1x1, 2x2, 1V+3
Playback Control	Regular (Play, Pause, Stop), Next Frame, Speed Control, Calendar, Timeline, Timeline Scale, Bookmark
Monitor Enhancement	OSD Display (NVR), Drag & Drop, Audio Control, PiP Control, Fisheye Dewarp (1O, 1P, 1R)
Snapshot	JPEG
Video Clip Export	EXE

Alarm Management

Schedule Type	Continuous, Schedule, Manual
Event	Motion Detection, PIR Detection, Tampering Detection, Digital Input (Camera), Digital Output (Camera), Connection Abnormal, Storage Abnormal, Storage Full, Camera Network Loss
Action	Record, Email (Text), Email (Snapshot), FTP, Buzzer, ePTZ Control (Go to Preset), Camera DO, VIVOCloud APP Notification
Recording Time (sec.)	Pre-Record: 5 (Max. 10) Post-Record: 20 (Max. 300)

Backup

Manual	USB Dongle (FAT Format), FTP Server Upload

System

User Management	User Account: 16 User Account Time Limit: 10 mins User Level: Administrator/Regular User User Feature Definition: By Camera
Log	System, Recording, User, Error
Date&Time	Time Zone, Manual, Automatic Sync NTP, Daylight Saving Time
Firmware	Manual update
Restore Default	Supported
Backup/Restore (Configuration)	Supported
Language	Czech, English, French, German, Italian, Japanese, Korean, Portuguese, Russian, Spanish, Simplified Chinese, Traditional Chinese, Polish

Camera Integration

Insert Camera	Manual, Search
Video (Media) Setting	Compression, Resolution, FPS, Video Quality
Image Setting	Image Display, Image Adjustment

Technical Specifications

Motion Detection	Supported
ONVIF Core SPEC.	Version 2.2 or above (By Project)
ONVIF Stream	Video (H.264 & MJPEG)
ONVIF Recording	Continuous, Schedule, Manual
ONVIF Discover	Discover other brand camera through "Insert Camera & Batch Insert"

![VIVOTEK logo]

IP8160
IP8160-W
Cube Network Camera

2MP · 8M IR · Smart Stream II · AEC · PoE · WiFi · Compact Size

VIVOTEK's IP8160/IP8160-W is a stylish 2-megapixel cube network camera specifically designed for small-scale retail security applications. With a resolution of 1920x1080 at 30 fps, a removable IR-cut filter and built-in IR illuminators effective up to 8 meters, this remarkable camera provides users with superior image quality around the clock.

When coupled with VIVOTEK's Smart Stream II technology, the IP8160/IP8160-W can reduce both bandwidth and storage consumption by up to 50%* while retaining the same superb image quality as a Full HD camera.

Further, the camera supports two-way audio, and employs Acoustic Echo Cancellation (AEC) to greatly enhance audio quality and provide a clearer, smoother auditory image . VIVOTEK provides two easy-to install options for this compact camera; the IP8160-W boasts a 802.11b/g/n compatible wireless connection, and the IP8160 is designed for Power over Ethernet (PoE) functionality, making setup of these two powerful cameras both quick and simple.
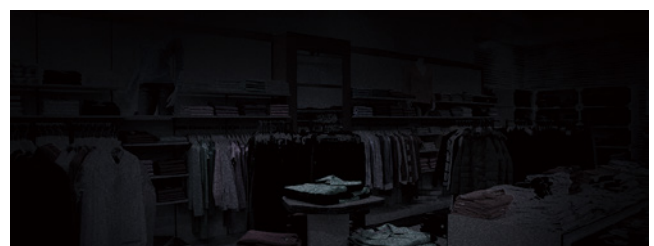
 * Depending on scenes

Key Features

· 30 fps @ 1920x1080
· Built-in IR Illuminators up to 8 M
· Smart IR Technology to Avoid Overexposure
· Smart Stream II to Optimize Bandwidth Efficiency
· Built-in Microphone and Speaker for Two-way Audio
· Acoustic Echo Cancellation (AEC) for Optimizing Sound System
· Built-in 802.3af Compliant PoE (IP8160)
· Built-in 802.11 b/g/n WLAN (IP8160-W)
· Built-in MicroSD/SDHC/SDXC Card Slot for On-board Storage
· Compact Design

IR On

IR Off

Technical Specifications

Model	IP8160: PoE, 8M IR IP8160-W: WiFi, 8M IR

System Information

CPU	Multimedia SoC (System-on-Chip)
Flash	128 MB
RAM	256 MB

Camera Features

Image Sensor	1/2.9" Progressive CMOS
Maximum Resolution	1920x1080
Lens Type	Fixed-focal
Focal Length	f = 2.8 mm
Aperture	F1.8
Field of View	113˚ (Horizontal) 63˚ (Vertical) 136˚ (Diagonal)
Shutter Time	1/5 sec. to 1/32,000 sec.
WDR Technology	WDR Enhanced
Day/Night	Removable IR-cut filter for day & night function
Minimum Illumination	0.07 Lux @ F1.8 (Color) < 0.01 Lux @ F1.8(B/W)
Pan/Tilt/Zoom Functionalities	ePTZ: 48x digital zoom (4x on IE plug-in,12x built in)
IR Illuminators	Built-in IR illuminators, effective up to 8 meters with Smart IR IR LED*2
On-board Storage	Slot type: MicroSD/SDHC/SDXC card slot Seamless Recording

Video

Compression	H.264 & MJPEG
Maximum Frame Rate	30 fps @ 1920x1080 15 fps @ 1920x1080 (Acoustic Echo Cancellation On)
Maximum Streams	3 simultaneous streams
S/N Ratio	70 dB
Dynamic Range	70 dB
Video Streaming	Adjustable resolution, quality and bitrate Smart Stream II
Image Settings	Time stamp, text overlay, flip & mirror; Configurable brightness, contrast, saturation, sharpness, white balance, exposure control, gain, backlight compensation, privacy masks; Scheduled profile settings, defog, 3DNR, video rotation

Audio

Audio Capability	Two-way Audio (Full duplex)
Compression	G.711, G.726
Interface	Built-in microphone Built-in speaker
Effective Range	5 meters

Network

Users	Live viewing for up to 10 clients
Protocols	IP8160: IPv4, IPv6, TCP/IP, HTTP, HTTPS, UPnP, RTSP/RTP/RTCP, IGMP, SMTP, FTP, DHCP, NTP, DNS, DDNS, PPPoE, CoS, QoS, SNMP, 802.1X ,SSL/TLS, ARP IP8160-W: IPv4, IPv6, TCP/IP, HTTP, HTTPS, UPnP, RTSP/RTP/RTCP, IGMP, SMTP, FTP, DHCP, NTP, DNS, DDNS, SNMP, ARP
Interface	IP8160: 10 Base-T/100 Base-TX Ethernet (RJ-45) IP8160-W: IEEE 802.11 b/g/n WLAN
ONVIF	Supported, specification available at www.onvif.org

Intelligent Video

Video Motion Detection	Five-window video motion detection

Alarm and Event

Alarm Triggers	Motion detection, manual trigger, periodical trigger, system boot, recording notification, camera tampering detection, audio detection
Alarm Events	Event notification using HTTP, SMTP, FTP, NAS server and SD Card File upload via HTTP, SMTP, FTP, NAS server and SD card

General

Connectors	IP8160: RJ-45 cable connector for 10/100Mpbs Network/PoE connection*1 IP8160-W: Micro USB connector for DC 5V power input*1
LED Indicator	System power and status indicator
Power Input	IP8160: IEEE 802.3af POE Class 0 IP8160-W: DC 5V
Power Consumption	IP8160: Max. 5.5 W IP8160-W: Max. 8 W
Dimensions	Ø 66 x 38.9 mm
Weight	IP8160: 100.6 g (Camera unit), 58 g (Stand) IP8160-W: 62 g (Camera unit), 58 g (Stand)
Safety Certifications	CE, LVD, FCC Class B, VCCI, C-Tick
Operating Temperature	Starting Temperature: 0˚C ~ 40˚C (32˚F ~ 104˚F) Working Temperature: 0˚C ~ 40˚C (32˚F ~ 104˚F)
Humidity	90%
Warranty	24 months

System Requirements

Operating System	Microsoft Windows 8/7/Vista/XP/2000

Technical Specifications

Web Browser	Mozilla Firefox 7~43 (streaming only) Internet Explorer 7/8/9/10/11
Other Players	VLC: 1.1.11 or above QuickTime: 7 or above

Included Accessories

Power Adapter	IP8160-W: 5V, 2A USB connector adapter
Others	Quick installation guide, warranty card, stand with screw kit, USB connector adapter(IP8160-W)

Dimensions

· IP8160

Ø66 mm   75.9 mm   97.5 mm

· IP8160-W

Ø66 mm   75.9 mm   97.5 mm