

Security Driven by **Intelligence**



PRODUCT GUIDE 2020

cbc-cctv.com

CBC (Europe) GmbH belongs to the CBC Group, one of the largest manufacturers of video surveillance systems, and can look back on many years of successful business in Germany. CBC is an international trading company which was founded in Tokyo, Japan, in 1925 by Mr. Utaro Doij.

Advanced video surveillance products are being continuously planned, developed and produced at our Japanese parent company in Tokyo. Numerous innovations have been successfully launched on the market, especially in the field of lens and camera technology. The lenses we have been producing for 30 years are developed and manufactured in our overseas works. Our leading market position is highlighted by our turnover of 2 billion euros per year.

CBC is a trading manufacturer with its registered office in Düsseldorf.

CBC (Europe) GmbH is a reliable partner thanks to our more than 20 years of experience and a competent team of some 50 employees. We offer our customers reliability, continuity, unique value for money, fast delivery and an excellent customer service. The importance of product information and the further training of our technicians, field workers and customers is a top priority for us.

40 years ago the CBC Group started off with the brand Computar which is regarded as the trademark for all optical components. With this brand the CBC Group is one of the world's leading lens manufacturers.

The brand GANZ, which is regarded as the trademark for all electronic products of the CBC Group, was introduced in 1999. The company unites the brand and electronic products under one roof. The product spectrum ranges from lenses, cameras, infrared lighting, protective housings and monitors down to video management systems, recording and transmission technology as well as IP transmission units. CBC is a supplier of technically and economically convincing CCTV solutions which cover all areas of video surveillance.

Thanks to the new developments and extensions to our products, we have created a comprehensive product range which can easily be integrated into all aspects of CCTV permitting us to offer our customers individual products or all-inclusive solutions.

As a manufacturing commercial enterprise, CBC continues to count on new technologies, above all digital surveillance products. CBC supplies its customers with top-quality products. Our aim is to be the first choice for CCTV buyers. Customer proximity is the focus of our corporate philosophy – from project development down to project implementation.

Rapid availability of all products thanks to stockkeeping – there is a store at almost all sites – supports our claim of being able to always provide the customer with optimum performance in the shortest possible time. On-site installation companies are supported by first-hand know-how, the technical service, regular seminars on aspects of CCTV technology and a highly motivated team.

The CBC network covers the world with ca. 3,000 employees. There are now more than 40 branches throughout the world (Europe, America and Asia). They ensure fast supplies and support for our customers. CBC (Europe) GmbH is responsible for continental Europe.

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THE NEXT GENERATION IN CENTRAL MANAGEMENT SOFTWARE

64
BIT

64 bit Core
Use the full power of your hardware



Event and Action Manager
Always be in control: automate your video surveillance process with the Alarm and Action manager

4K

4K Ready
4K ready VMS application with 4K recording and playback capability



Failover
Continuous monitoring of the status of all servers and failover management from the central server

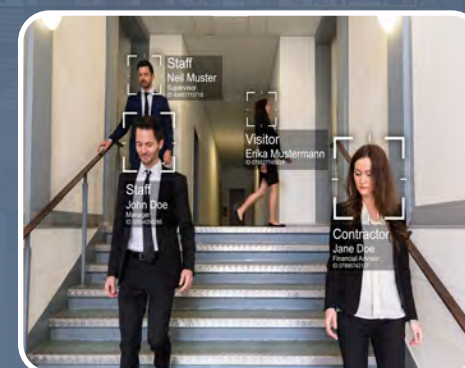


Powerful Analytics
Modules for advanced video analytics, face and license plate recognition



Archive Replication
Advanced mirror recording with scheduled transfers ensures the safety of your data at all times

control.eu



Face Recognition



Video Analytics

Available in 3 Editions:

GANZ CORTROL

Prime

16 Channel System – FREE

GANZ CORTROL Prime provides a robust feature set to get any home or small office set up with up to 16 channels; 16 GANZ security cameras or a combination of 8 GANZ and 8 from any other major vendor or ONVIF compatible camera.

Full HD Resolution

Stream up to 1080p

Client Access

Access your server from a client station (1 user at a time).

Mobile Application

Use your mobile device as a mobile security or to view live and recorded video (1 user at a time).

GANZ CORTROL

Premier

Standalone System – 1-96 Channels

GANZ CORTROL Premier features an intuitive and elegant user interface paired with advanced features and unlimited remote users. Fully manageable and virtually limitless across any network right at your fingertips.

Full HD and UHD Resolution

Stream up to 4k and 8k resolution.

Video Content Analysis

Add analytics to any camera in your system. Create Zones/Lines to alert on perimeter intrusion as well as loitering. Become efficient with the information you see.

Integrations and API

GANZ CORTROL Premier offers an SDK to integrate other software systems.

Mobile Streaming

Use your mobile device as a mobile security camera to stream video and have the ability to view live or be recorded.

GANZ CORTROL

Global

Enterprise System – Unlimited Channels

GANZ CORTROL Global is a complete surveillance solution for enterprise networks of any size and offers 64-bit processing power with a unique feature set to keep security efficiency as a number one priority.

Get the most out of your video wall in the control room. Create custom Video Wall configurations or force users to specific Video Walls with CORTROL Global. Create "Area Focused" video walls to quickly review footage.

Failover

Automated recovery of your system in the event of a sudden server failure. CORTROL Global carefully tracks operations of all servers, and, in case any of the servers has failed, it quickly activates a spare server to perform the actions that the malfunctioning server was performing prior to failing.

Automate recovery of your system in the event of a sudden server failure. CORTROL Global can manage multiple servers and activate a spare server in case one fails without losing any data.

Advanced Health Monitoring

Keep your finger on the pulse of all of your hardware, minimizing the risk of inconvenient surprises and control the state of the whole video surveillance system.

Multicast

Enjoy full use of the multicast environment, transmitting to different destination devices (both servers and cameras). This functionality fully integrates with large enterprise environments using Active Directory or LDAP technology.

Organization Hierarchy

The functionality allows the construction of a more structured hierarchy of system rights and privileges among users within an organization. The group's administrator (or sub-admin) rights are also specific for each group, thus valid only for the chosen scope of cameras and servers.

Archive Replication

Make your local recording server into a buffer server. In large enterprises, this allows for convenient local usage, scheduled or constant data transfer to Central Data Center, whenever the network is available.



GANZ CONTROL INTELLIGENCE:

This intelligent and powerful VMS supports most cameras and has a wide range of advanced features with a long list of add-ons, enabling highly efficient video surveillance



Intuitive and User-friendly

The CORTROL interface allows all users to easily understand the configuration process and start using the software



Enterprise Ready

Central server hierarchy, failover, archive replication and many other high level features, CORTROL Global is the ideal system for large-scale solution



Complete System

The essential and advanced software features allow you to make the most of your surveillance system



Time-proven Performance

Quality and stability of the software's core is proven and backed up by Ganz's years of experience and continuous development

GANZ CONTROL HIGHLIGHTS:



64 bit Core

Use the full power of your hardware



4K Ready

4K ready VMS application with 4K recording and playback capability



Powerful Analytics

Modules for advanced video analytics, face and license plate recognition



Event and Action Manager

Always be in control: automate your video surveillance process with the Alarm and Action manager



Failover

Continuous monitoring of the status of all servers and failover management from the central server



Archive Replication

Advanced mirror recording with scheduled transfers ensures the safety of your data at all times



Integrations and API

Combining your video surveillance with third-party software with integration possibilities that CORTROL offers

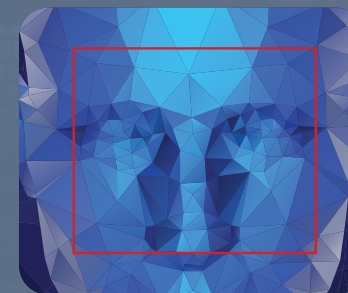
GANZ CONTROL MODULE:



LPR Module

CORTROL LPR is software for detecting, recognizing and registering vehicle license plates. It offers a very high level of reading reliability, an intuitive installation process and great usability characteristics.

The software is ideally suited for vehicle access and traffic control, as well as enforcement applications. CORTROL also offers multiple customization possibilities for specific license plates and different types of transport (trains, trucks, cars, etc.).



Facial Recognition

CORTROL Face Recognition is a biometric application that is designed to work with CORTROL Premier and Global editions.

The technology assures system performance and reliability with live face detection, simultaneous multiple face recognition and fast face matching in 1-to-1 and 1-to-many modes. CORTROL Face Recognition is ideally suited for human resource control applications as well as for security and enforcement applications.



VCA Module

CORTROL VCA is a real-time video analytics engine that utilizes advanced image processing algorithms to turn video into actionable intelligence.

At the core of the product is an advanced object tracking engine that continually tracks moving and stationary targets. Easy to set up, CORTROL VCA automatically adjusts to site conditions, making it ideal for both experienced and untrained personnel to use.



API Module

CORTROL offers customizable integration with other software systems in form of software development kit (SDK), CORTROL VMS Client Kit.

CORTROL VMS Client Kit is the collection of ActiveX software components which allow integration of CORTROL client side functionality into other software products and integration between CORTROL and third party software systems.

CORTROL ECO 4 SERVER SOLUTION

- 24 Channel
- max. 4 HDD

Recording performance	24 channel @ 4MP (12Mbps) 300Mbps
Chassis	1U Supermicro C813MTQ-600CB
Motherboard	Single Socket Supermicro X11SSL-F
Processor	Intel® XEON UP E3-1220v6 3,00 GHz (2400 MHz 4Cores/4Threads)
Memory	SIM DDR4-RAM SVR 8GB PC2400 Samsung ECCREG
USB	5x USB 3.0 ports, 6x USB 2.0 ports 2x @ rear panel
RAID Card	RAID PCIe 3.0 x8 SATA/SAS 12Gb/s Adaptec 8405E v2 4-K./10 512MB, RAID 0, 1, 10
DVD	DVD-RW NB SATA ultra-slimline 9,5 mm LiteOn DU-8AESH
OS	Win2016 Essentials OEM
Video Management	Latest GANZ CORTROL Version



CORTROL ECO 8 SERVER SOLUTION

- 48 Channel
- max. 8 HDD

Recording performance	48 channel @ 4MP (12Mbps) 600Mbps
Chassis	2U Supermicro SC825TQC-R740LPB
Motherboard	Single Socket Supermicro X10SRL-F
Processor	Intel® XEON DP E5-2620v4 2,10 GHz (2133 MHz 8Cores/16Threads)
Memory	SIM DDR4-RAM SVR 4GB PC2133 Kingston ECC REG
USB	4x USB 3.0 ports, 8x USB 2.0 ports 2x @ rear panel
RAID Card	Broadcom MegaRAID 9260-8i
DVD	DVD-RW NB SATA ultra-slimline 9,5 mm LiteOn DU-8AESH
OS	Win2016 Essentials OEM
Video Management	Latest GANZ CORTROL Version



CORTROL ECO 16 SERVER SOLUTION

- 48 Channel
- max. 16 HDD

Recording performance	48 channel @ 4MP (12Mbps) 600Mbps
Chassis	3U Supermicro SC836BE1C-R1K03B
Motherboard	Single Socket Supermicro X10SRL-F
Processor	Intel® XEON DP E5-2620v4 2,10 GHz (2133 MHz 8Cores/16Threads)
Memory	SIM DDR4-RAM SVR 4GB PC2133 Kingston ECC REG
USB	4x USB 3.0 ports, 8x USB 2.0 ports 2x @ rear panel
RAID Card	Broadcom MegaRAID 9361-4i
DVD	DVD-RW NB SATA ultra-slimline 9,5 mm LiteOn DU-8AESH
OS	Win2016 Essentials OEM
Video Management	Latest GANZ CORTROL Version



CORTROL ECO 24 SERVER SOLUTION

- 48 Channel
- max. 24 HDD

Recording performance	48 channel @ 4MP (12Mbps) 600Mbps
Chassis	4U Supermicro SC846BE1C-R1K28B
Motherboard	Single Socket Supermicro X11SSL-F
Processor	Intel® XEON UP E3-1230v6 3.50 GHz 4 Cores / 8 Threads
Memory	SIM DDR4-RAM SVR 8GB PC2400 Samsung ECC
USB	5x USB 3.0 (2 rear + 2 via header + 1 Type A), 6x USB 2.0 (2 rear + 4 via headers)
RAID Card	Broadcom MegaRAID 9361-4i
DVD	DVD-RW Lite-On IHAS124-14
OS	Win2016 Essentials OEM
Video Management	Latest GANZ CORTROL Version



CORTROL ECO 36 SERVER SOLUTION

- 96 Channel
- max. 36 HDD

Recording performance	96 channel @ 4MP (12Mbps) >800Mbps
Chassis	4U SuperChassis 847BE1C-R1K28LPB
Motherboard	Single Socket Supermicro X10SRI-F
Processor	Intel® Xeon® E5-2620V4 Processor 2.10GHz (3.00GHz,20MB,8.00GT QPI,85W) 8C/16T
Memory	SIM DDR4-RAM SVR 8GB PC2400 Samsung
USB	5x USB 3.0 ports, 6x USB 2.0 ports 2x @ rear panel
RAID Card	Broadcom MegaRAID 9361-8i
DVD	DVD-RW NB SATA ultra-slimline 9,5 mm LiteOn DU-8AESH
OS	Win2016 Essentials OEM
Video Management	Latest GANZ CORTROL Version



CORTROL CLIENT SOLUTION

- 2 or 4 Monitors

	Solution for 2 Monitors - GCCS2	Solution for 4 Monitors - GCCS4
Operating System	Microsoft® Windows® 10 Professional	
Processor	Intel® Core i5-7500 3,40 GHz (GPU HD630) 65W	Intel Core i7-7700 3,60 GHz (GPU HD630) 65W
Memory	8GB	
Optical Drive	DVD-RW SATA LG GH24NSD1	
Ports	10 x USB, 2 x PS-2, RJ-45	
Interfaces	4x USB 3.0, 2x USB 2.0, 2x PS/2, LAN, Audio	4x USB 3.0, 2x USB 2.0, 2x PS/2, LAN, Audio
Graphics	Graf PCIe nVidia GT730 Silent Asus 2GB DDR3	Graf CAD PCIe nVidia PNY Quadro P600 2GB GDDR5
Video Ports	VGA, DVI-D, HDMI, DisplayPort	
Storage	SSD M.2 2280 256 GB SATA	
Network Interface	Intel® i219V, 10/100/1000 MBit/s	
Accessory	Keyboard, Mouse, Power / HDMI Cable	





Model	Type	Resolution FPS	Lens	WDR	IR	Audio		Alarm	VCA	Power
						I/O	MIC			
ZN-B8M310-DLP	Bullet	8MP / 25fps	2.8 ~ 12mm MFZ	T-WDR	30m	1/1	–	1/1	Optional	12V / 24V / PoE
ZN-B4M212-DP	Bullet	4MP / 25fps	2.8 ~ 12mm MFZ	T-WDR	30m	1/1	–	1/1	Optional	12V / 24V / PoE
ZN-MB4F4-D	Bullet	4MP / 25fps	4.0mm	T-WDR	15m	–	–	–	Optional	12V / 24V / PoE
ZN-VD8M310-DLP	Outdoordome	8MP / 25fps	2.8 ~ 12mm MFZ	T-WDR	30m	1/1	–	1/1	Optional	12V / 24V / PoE
ZN-VD4M212	Outdoordome	4MP / 25fps	2.8 ~ 12mm MFZ	T-WDR	30m	1/1	–	1/1	Optional	12V / 24V / PoE
ZN-VD4F28-DL	Outdoordome	4MP / 25fps	2.8mm	T-WDR	15m	1/1	–	1/1	Optional	12V / PoE
ZN-D4M212-DLP	Indoordome	4MP / 25fps	2.8 ~ 12mm MFZ	T-WDR	15m	1/1	–	1/1	Optional	12V / 24V / PoE
ZN-F12F12-NL	Fisheye	12MP / 25fps	1.2mm	T-WDR	5m	1/1	–	1/1	Optional	12V / PoE



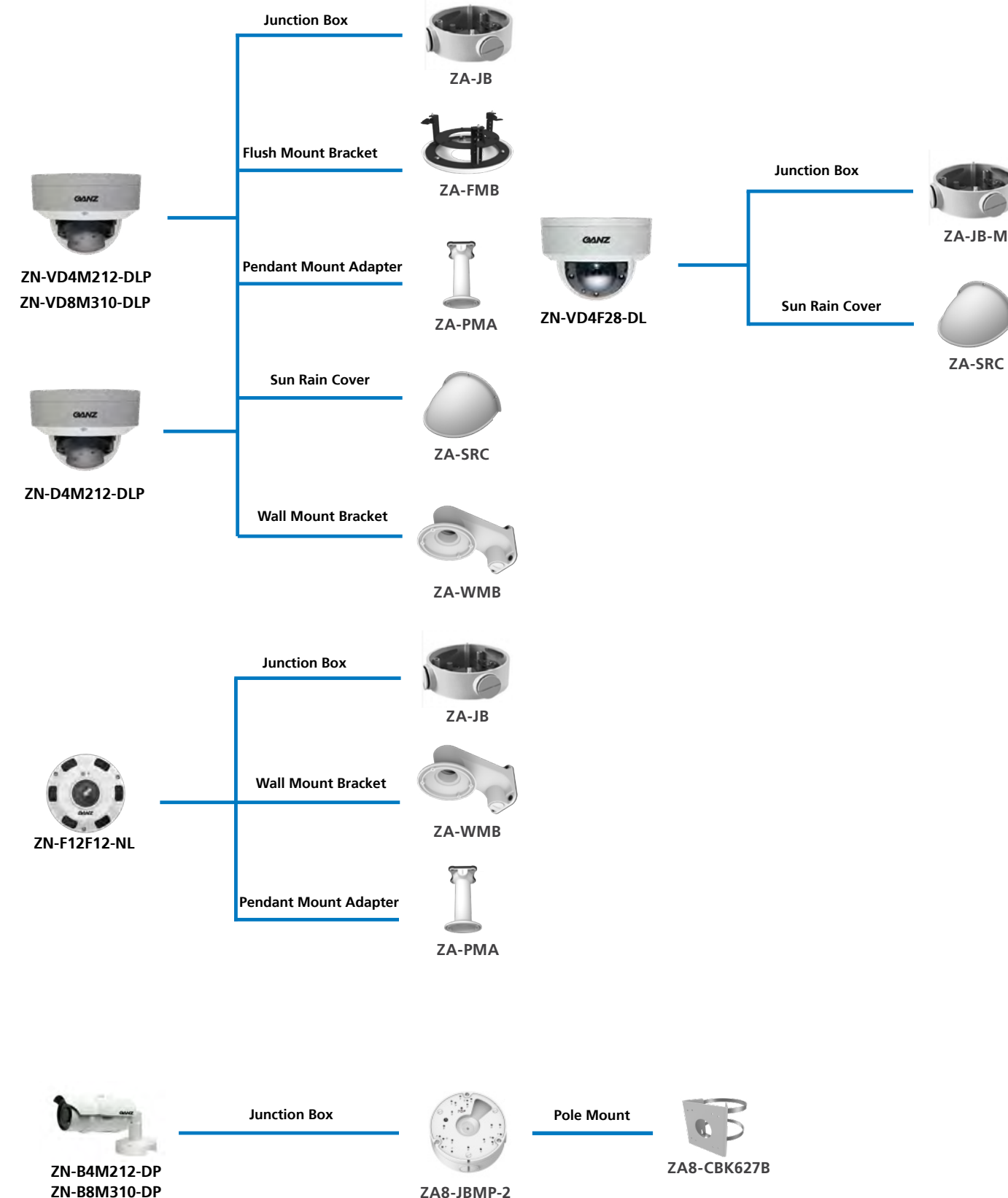
Model	Channel	Recording	LAN	PoE	HDD SATA	Audio I/O	Alarm I/O	VGA / HDMI
NR-4F81-4PA-V	4	4K / 25fps	2x Gbit	4x	max. 1	–	4IP / 1	1/1
NR-8F82-8PA-V	8	4K / 25fps	2x Gbit	8x	max. 2	–	8IP / 1	1/1
NR-16F82-8PA-V	16	4K / 25fps	2x Gbit	8x	max. 2	–	16IP / 1	1/1
NR-16F85-8PRA	16	4K / 25fps	2x Gbit	8x	max. 5	1/1	16IP +2 / 1	1/1



	8 MEGAPIXEL BULLET	4 MEGAPIXEL BULLET	
	ZN-B8M310-DP	ZN-B4M212-DP	ZN-MB4F4-D
SoC	Hi3519v101	Hi3516D	
Max res & Frame rate	3840 x 2160 / 25bps	2592 x 1520 / 25fps	
Sensor	IMX334	1/3" OV4689	
Recording Pixels	3840 x 2160	2592 x 1520	
Lens	MFZ 3.6 ~ 10mm	MFZ 2.8 ~ 12mm	f=4.0mm
Iris	p-iris		fixed iris
Optical Zoom	x2.8	x4.3	-
Angle of View (H / V / D)	111 / 61 / 130(w), 43 / 25 / 53(t)	99 / 53 / 113(w), 31 / 18 / 35(t)	87 / 47 / 102
Day & Night	IR Cut-Filter		
D -> N threshold	Configurable		
N -> D threshold	Configurable		
IR Number / Distance	4ea / ~30M, Smart IR		4ea / 15m, smart IR
Min. illumination	0.02Lx / F1.4 (color)		0.1Lx / F1.2 (color)
DC 12V	Yes		
AC 24V	-		
PoE 48V	Yes		
PoE class	class-3		class-2
Heater	-		
Micro SD Card	Yes		-
Analog Video Out	1x BNC (Installation Only)		-
Alarm In / Out	1 / 1		-
Audio In / Out	1x RCA / 1x RCA		-
Audio CODEC	G.711		-
FAN	-	-	-
Ambient Temperature	-10 ~ 50°C		
Ambient Humidity	less than 90%, Non-condensing		
Materials	Aluminum diecasting		
Weight	1.02kg		0.47kg
Dimensions mm	290.5 (Straight) x 105.37 (base)		73.05 x 56.2 x 192.86 (W x H x D)
IK Rating	-		
IP Rating	IP66		IP66
3D DNR	Yes		
WDR	tWDR		
Image Compression	H.264 / H.265 (on request)		
VBR+	Yes		
Streaming	Triple Streaming (2 x H.264/H.265 + 1 x Jpeg)		
Video Analytics	Optional		
SDK	HTTP based API, Onvif Profile S		



	8 MEGAPIXEL OUTDOOR DOME	4 MEGAPIXEL OUTDOOR DOME		4 MEGAPIXEL INDOOR DOME	FISHEYE
	ZN-VD8M310-DLP	ZN-VD4M212-DLP	ZN-D4M212-DLP	ZN-VD4F28-DL	ZN-F12F12-NL
SoC	Hi3519v101	Hi3516D			Hi3519V101
Max res & Frame rate	3840 x 2160 / 25fps	2592 x 1520 / 25fps			4000 x 3000 / 25fps
Sensor	IMX334	1/3" OV4689			IMX226
Lens	MFZ 3.6 ~ 10mm	MFZ 2.8 ~ 12mm		f=2.8mm	1.2mm computar lens
Iris	P-iris			fixed iris	
Optical Zoom	x2.8	x4.3		-	
Angle of View (H / V / D)°	111 / 61 / 130(w), 43 / 25 / 53(t)	99 / 53 / 113(w), 31 / 18 / 35(t)		106 / 60 / 124	185° x 360°
Day & Night	IR Cut-Filter				
D -> N threshold	Configurable				
N -> D threshold	Configurable				
IR LEDs	30m, Smart IR		15m, Smart IR		5m
Min. illumination	0.1Lx / F1.2 (color)				
DC 12V	Yes				
AC 24V	Yes			-	
PoE 48V	Yes				
PoE class	class-3	class-2			
Heater	-	-			
Micro SD Card	Yes				
Analog Video Out	Yes (Installation Only)				
Alarm In / Out	1 / 1				
Audio In / Out	1 / 1				
Audio CODEC	G.711				
FAN	-	-			
Ambient Temperature	-10 ~ +50°C				
Ambient Humidity	less than 90%, Non-condensing				
Materials	Aluminum die-casting		Polycarbonate	Aluminum diecasting	
Weight	0.8kg		0.4kg		0.6kg
Dimensions mm	151.42Ø x 109.3H			114Ø x 81.81H	160Ø x 46H
IK Rating	IK10		-	IK10	-
IP Rating	IP67		-	IP67	IP66
3D DNR	Yes				
WDR	tWDR				
Image Compression	H.264 / H.265 (optional)				
VBR+	Yes				
Streaming	Triple Streaming (2 x H.264/H.265 + 1 x Jpeg)	Triple Streaming (2 x H.264/H.265 + 1 x Jpeg)			
Video Analytics	Yes	Optional		-	Optional
SDK	HTTP based API, Onvif Profile S				





		NETWORK VIDEO RECORDER		
		NR-4F81-4PA-V	NR-8F82-8PA-V	NR-16F82-8PA-V
Channels		4ch	8ch	16ch
	INPUT SIGNAL	4 x IP Camera (Max 4k)	8 x IP Camera (Max 4k)	16 x IP Camera (Max 4k)
Monitoring	MAIN MONITOR	VGA / HD Display		
	MAIN MONITOR RESOLUTION	4k/30p / 1080p / 720p / SXGA		4k/60p / 1080p / 720p / SXGA
	SPOT	-		1
	MOTION DETECTION	Yes (From IP Camera)		
Audio	INPUT SIGNAL	4 CH (From IP Camera)	8 CH (From IP Camera)	16CH (From IP Camera)
	OUTPUT SIGNAL	-		
	MICROPHONE	-		
	CODEC	G.711		
Recording	CODEC	H.264 (BP, MP, HP) /H.265		
	REC. RATE	MAX. 30 FPS@8MP / CH (Depend on IP Camera)		
	REC. RESOLUTION	MAX. 4k (Depend on IP Camera)		
Alarm I/O	ALARM IN	4 CH (IP) (Depend on IP Camera) / 2IN	8 CH (IP) (Depend on IP Camera) / 2IN	16 CH (IP) (Depend on IP Camera) / 2IN
	ALARM OUT	4 CH (IP) (Depend on IP Camera) + 1 RELAY (Internal)	8 CH (IP) (Depend on IP Camera) + 1 RELAY (Internal)	16 CH (IP) (Depend on IP Camera) + 1 RELAY (Internal)
STORAGE	INTERNAL HDD	1EA (SATA)	2EA (SATA)	
	EXTERNAL STORAGE	-		
	INTERNAL ODD	-		
	USB	2ports		
INTERFACES	RS-485	-		
	RS-232	-		
HUB	LAN	4 (IP Camera, POE) + 1 (WAN)	8 (IP Camera, POE) + 1 Giga (WAN)	8 (IP Camera, POE) + 2Giga (WAN/LAN) + NR-8P
	REMOTE CONTROL	Yes		
	NETWORK	-		
	TOTAL PoE POWER	-		
ETC	MANAGEABLE by IPX	-		
	ADAPTOR	-		
	WATCHDOG	Yes		
POWER	COOLING FAN	1EA		
	POWER SUPPLY	48V adaptor		
ENVIRONMENT	POWER CONSUMPTION	TBD		
	TEMPERATURE	0°C ~ 40°C		
CHASSIS	HUMIDITY	10 ~ 90% NC		
	DIMENSION	1U		
CERTIFICATION	WEIGHT	TBD		
	Type	FCC, CE, C-Tick		
MONITORING	DISPLAY RATE	Up to 120fps/100fps (Realtime)	Up to 240fps/200fps (Realtime)	Up to 480fps/400fps (Realtime)
	DECODING RATE	Max Total 60fps @ 8M		Max Total 120fps @ 8M
	DISPLAY RESOLUTION	2160p / 1080p / 720p / SXGA		
	DISPLAY MODE	1,4	1,4,6,8	1,4,8,9,16
	SEQUECE	Programmable Sequence		
	DIGITAL ZOOM	Yes		
	COVERT	Yes		
	CAMERA COLOR CONTROL	Yes (CONTRAST, HUE, TINY, BRIGHTNESS) (Depend on IP Camera)		
	CAMERA IMAGE CONTROL	Yes (WHITE BALANCE, EXPOSURE, FLICKERLESS) (Depend on IP Camera)		
	AUDIO MONITORING	Yes (From IP Camera)		
	MICROPHONE	Yes (MIC to IP Camera)		
	PTZ CAMERA SUPPORT	Yes		
	VIDEO COMPRESSION	H.264 (BP,MP,HP) / H.265		
	AUDIO COMPRESSION	G.711		
	RECORD	RECORDING RESOLUTION	Up to 8MP (Depend on IP Camera)	
RECORDING RATE		MAX. 30 FPS@CH		
SCHEDULE METHOD		Daily / Weekly / Each Hour		
PROGRAMMABLE FOR CH		Yes		
RECORD TIME LIMIT		Yes		
EVENT RECORDING		Yes		
INTENSIVE RECORDING		Yes (MOTION / ALARM)		
PRE-EVENT RECORDING		0 / 1 / 2 / 3 / 4 / 5 / 10 / 15 SEC		
PANIC RECORDING		Yes		
DISPLAY MODE		1, 4, 9	1, 4, 9, 16	1, 4, 9, 16
SEARCH & PLAYBACK	PLAYBACK RATE	Up to 120FPS	Up to 240FPS	Up to 480FPS
	PLAYBACK SPEED	x1, x2, x4, x16, x32, x64		
	CALENDAR SEARCH	Yes (2008/1/1 ~ 2035/12/31)		
	EVENT SEARCH	Yes		
	THUMBNAIL SEARCH	Yes		
	BOOKMARK SEARCH	Yes		
	INSTANT PLAYBACK	Yes		
	PLAYBACK ZOOM	Yes		
	SNAPSHOT	Yes (JPEG)		



NETWORK VIDEO RECORDER				
		NR-4F81-4PA-V	NR-8F82-8PA-V	NR-16F82-8PA-V
ARCHIVING	ARCHIVING DEVICES	USB Memory, FTP		
	REMOTE ARCHIVING	Yes (WEB RA, VMS, FTP)		
	SNAPSHOT ARCHIVING	Yes		
	DATA RESERVING	Yes		
	RESERVED DATA LIST MANAGEMENT	Yes		
	BACKUP DATA FORMAT	AVI, RAW		
	WATERMARK	MD5		
	WATERMARK VARIFICATION	Yes		
	ARCHIVED DATA PLAYBACK	Yes		
	MAX. CONNECTIONS	32 USERS		
	DHCP	Yes		
	HTTPS	Yes		
	SSL	Yes		
	DDNS	Yes		
	TRANSMISSION RATE	MAX 120 fps(Depend on IP Camera)	MAX 240 fps (Depend on IP Camera)	MAX 480 fps (Depend on IP Camera)
NETWORK	BANDWIDTH CONTROL	Yes		
	WEB BROWER ACCESS	Yes		
	REMOTE MONITORING	Yes		
	REMOTE PLAYBACK	Yes		
	REMOTE ARCHIVING	Yes		
	REMOTE HEALTH CHECK	Yes		
	VMS SUPPORT	Yes		
	ONVIF CAMERA SUPPORT	Yes (Profile-S)		
	TWO-WAY AUDIO	Yes		
	PC BASED REMOTE AGENT	Yes		
	SMART PHONE APPLICATION	Yes (iPhone, iPad, Android)		
	WEB BASED REMOTE AGENT	Yes		
	SDK	Yes (HTTP BASED SDK, PC Codec Library)		
	IP FILTERING	Yes		
	AUTO ROUTER PORT FORWARDING	Yes		
EVENT & ACTIONS	DUAL STREAMING	Yes		
	FTP CLIENT	Yes (For ARCHIVING)		
	E-MAIL	Yes (SMTP CLIENT)		
	AUTHORITY CONTROL	ADMIN/MANAGER/USER		
	AUTO IP CAM INSTALLATION (PLUG AND DISPLAY)	Yes		
	PROTOCOLS	WS-Discovery, RTP, RTSP, RTCP,S MTP, NTP, HTTP, FTP, DDNS, DHCP, uPNP(Router Port Forwading), HTTPS, SSL		
	WIFI	-		
	ALARM OUT	Yes		
STORAGE	EVENT NOTIFICATION	Yes		
	VIDEO POPUP	Yes		
	ALARM SENSOR EVENT	Yes		
	VIDEO LOSS EVENT	Yes		
	MOTION DETECTION EVENT	Yes		
	MOTION SENSOR AREA	DEPEND ON IP CAMERA		
	DISK EVENT	Yes		
	SYSTEM EVENT	Yes		
USER	NETWORK EVENT	Yes		
	DISK S.M.A.R.T CHECK	Yes(DEPEND ON HDD SPEC)		
	EXTERNAL STORAGE	Yes (eSATA, NAS(for Backup))		
	AUTO DISK RECOVERY	Yes		
ETC	DELETING PARTIAL DATA	Yes		
	GROUP AUTHORITY	Yes(ADMIN/MANAGER/USER)		
	OPERATING SYSTEM	LINUX*		
	F/W UPGRADE	Yes (USB / NETWORK)		
	SETUP IMPORT/EXPORT	Yes		
	KEYBOARD CONTROLLER	Yes		
	BACKUP VIEWER	Yes (Multi Channel Playback Support)		
	POS / Text-In Device			
	LANGUAGE	MULTI-LANGUAGE		



4K

NR-16F85-8PRA (w/ external Hub NR-8P)		
Channels		16ch
Monitoring	Input Signal	16 x IP Camera (Max 8MP)
	Main Monitor	VGA / HD Display
	Main Monitor Resolution	2160p / 1080p / 720p / SXGA
	Spot	1
	Motion Detection	Yes (From IP Camera)
Audio	Input Signal	16 CH (From IP Camera)
	Output Signal	1CH
	Microphone	1CH
	Codec	G.711
Recording	Codec	H.264(BP,MP,HP)/H.265
	Recording Rate	MAX. 30 FPS@8MP/CH (Depend on IP Camera)
	Recording Resolution	MAX. 8MP (Depend on IP Camera)
Alarm I/O	Alarm In	16 CH (IP) + 2 CH (Internal) (Depend on IP Camera)
	Alarm Out	16 CH (IP) (Depend on IP Camera) + 1 RELAY (Internal)
Storage	Internal HDD	5EA
	Eexternal Storage	Yes (eSATA, NAS (for Backup))
	Internal ODD	none
Interfaces	USB	3ports
	RS-485	1
	RS-232	1
	LAN	8 (IP Camera, POE(802.3at)) + 1 (LAN) + 1 (WAN)
	Remote Controll	Yes
	Network	2GE + 8GE(PoE) (16ch)
Hub	Total PoE Power	72W
	Manageable by IPX	ARM9 interior (16ch)
	Adaptor	48V, 96W
ETC	Watchdog	Yes
	Cooling Fan	1EA
Power	Power Supply	SMPS 12V 100W + SMPS 52V 100W
	Power Consumption	15W max. without HDD
Environment	Temperature	0°C ~ 40°C (32°F~104°F)
	Humidity	10 ~ 90% NC
Chassis	Dimension	2U (430 x 367 x 88.4)
	Weight	TBD
Certification	UL, CUL, FCC, CE	UL, cUL, FCC, CE, KC, C-tick
	Display Rate	Up to 480fps / 400fps (Realtime)
Monitoring	Decoding Rate	Max Total 120fps @ 8M
	Display Resolution	2160p / 1080p / 720p / SXGA
	Display Mode	1,4,8,9,16
	Sequence	Programmable Sequence
	Digital Zoom	Yes
	Covert	Yes
	Camera Color Control	Yes (CONTRAST, HUE, TINY, BRIGHTNESS) (Depend on IP Camera)
	Camera Image Control	Yes (WHITE BALANCE, EXPOSURE, FLICKERLESS) (Depend on IP Camera)
	Audio Monitoring	Yes (From IP Camera)
	Microphone	Yes (MIC to IP Camera)
	PTZ Camera Support	Yes (IP, RS485)
	Video Compression	H.264 (BP,MP,HP) /H.265
	Audio Compression	G.711
	Recording Resolution	Up to 8MP (Depend on IP Camera)
	Recording Rate	MAX. 30 FPS@CH
Record	Schedule Method	DAILY/WEEKLY EACH HOUR
	Programmable for Ch	Yes
	Record Time Limit	Yes
	Event Recording	Yes
	Intensive Recording	Yes (MOTION / ALARM)
	Pre-Event Recording	0/1/2/3/4/5/10/15 SEC
	Panic Recording	Yes
Seach & Playback	Display Mode	1,4,9,16
	Playback Rate	Up to 480FPS
	Playback Speed	x1, x2, x4, x16, x32, x64
	Calendar Search	Yes (2008/1/1 ~ 2035/12/31)
	Event Search	Yes
	Thumbnail Search	Yes
	Bookmark Search	Yes
	Instant Playback	Yes
	Playback Zoom	Yes
	Snapshot	Yes (JPEG)



4K

NETWORK VIDEO RECORDER		
		NR-16F85-8PRA (w/ external Hub NR-8P)
Archiving	Archiving Devices	USB Memory, FTP
	Remote Archiving	Yes (WEB RA, VMS, FTP)
	Snapshot Archiving	Yes
	Data Reserving	Yes
	Reserved Data List Management	Yes
	Backup Data Format	AVI, RAW
	Watermark	MD5
	Watermark Verification	Yes
	Archived Data Playback	Yes
	Max. Connections	32 Users
Network	DHCP	Yes
	HTTPS	Yes
	SSL	Yes
	DDNS	Yes
	Transmission Rate	Max 480 fps (Depend on IP Camera)
	Bandwidth Control	Yes
	Web Browser Access	Yes
	Remote MONITORING	Yes
	Remote Playback	Yes
	Remote Archiving	Yes
	Remote Health Check	Yes
	VMS Support	Yes
	ONVIF Camera Support	Yes (Profile-S)
	Two-Way Audio	Yes
	PC Based Remote Agent	Yes
	Smart Phone Application	Yes (iPhone, iPad, Android)
	Web Based Remote Agent	Yes
	SDK	Yes (HTTP BASED SDK, PC Codec Library)
	IP Filtering	Yes
	Auto Router Port Forwarding	Yes
	Dual Streaming	Yes
	FTP Client	Yes (For Archiving)
	E-MAIL	Yes (SMTP CLIENT)
	Authority Control	ADMIN / MANAGER / USER
	AUTO IP Cam Installation (Plug and Display)	Yes
	Protocols	WS-Discovery, RTP, RTSP, RTCP,S MTP, NTP, HTTP, FTP, DDNS, DHCP, uPNP(Router Port Forwarding), HTTPS, SSL
	WIFI	-
Event & Actions	Alarm Out	Yes
	Event Notification	Yes
	Video Pop-Up	Yes
	Alarm Sensor Event	Yes
	Video Loss Event	Yes
	Motion Detection Event	Yes
	Motion Sensor Area	Depends on IP Camera
	Disk Event	Yes
	System Event	Yes
	Networ Event	Yes
Storage	HDD S.M.A.R.T Check	Yes (Depends on HDD Specifications)
	External Storage	Yes (eSATA, NAS(for Backup))
	Auto Disk Recovery	Yes
	Deleting Partial Data	Yes
User	Group Authority	Yes (ADMIN/MANAGER/USER)
ETC	Operating System	LINUX®
	F/W Upgrade	Yes (USB / NETWORK)
	Setup Import / Export	Yes
	Keyboard Controller	Yes
	Backup Viewer	Yes (Multi Channel Playback Support)
	POS / Text-In Device	
	Language	Multi-Language

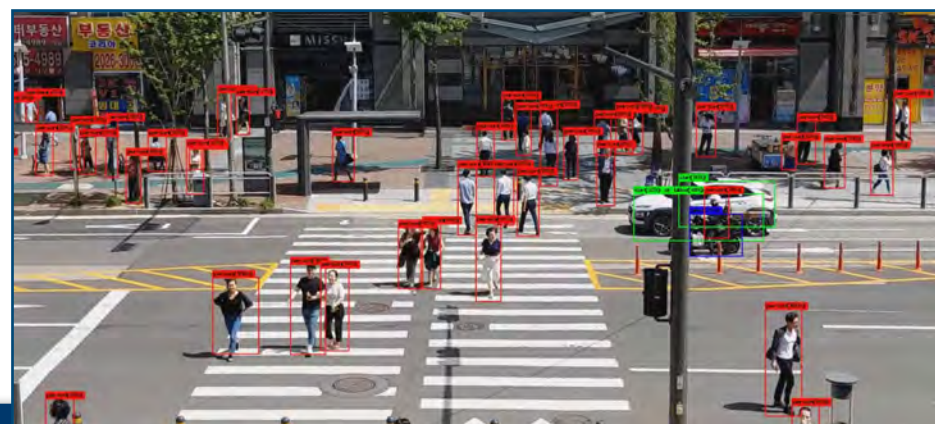
ACCESSORIES

Model	ZA-RM1U	NR-RM2	NR8P
Product type	Rack Mount for 1U	Rack Mount for 2U	8ch External PoE Hub



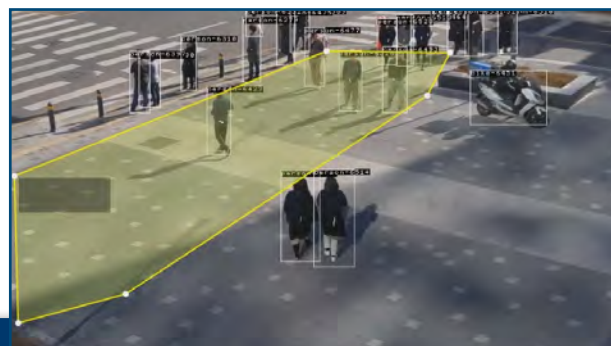
Features:

- 4 / 8 / 16 Channel Version
- Advanced Algorithm
- Configurable Ruleset
- No Calibration and Classification required
- Human / Vehicle Detection
- People and Vehicle Counting and Heat Map
- Intrusion / Presence Detection / Enter / Exit / Line Crossing
- ONVIF Compliance
- Face Recognition
- License Plate Recognition
- Further Object Behaviour Analysis



Busy Scene

Detection of multiple objects with classifications without calibration



Zone Setup

Intuitive creation of specific shaped zones



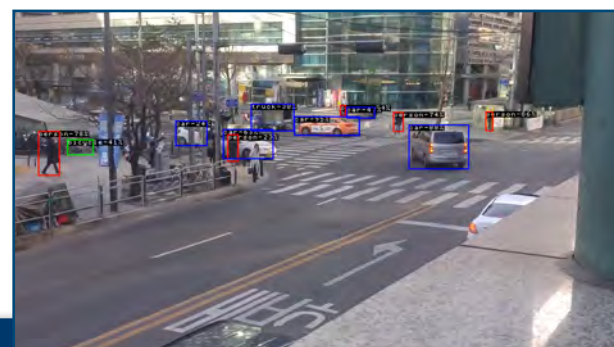
Zone Type

Intrusion, loitering, stop and line crossing






Accurate Detection and Classification

Classification under difficult light conditions



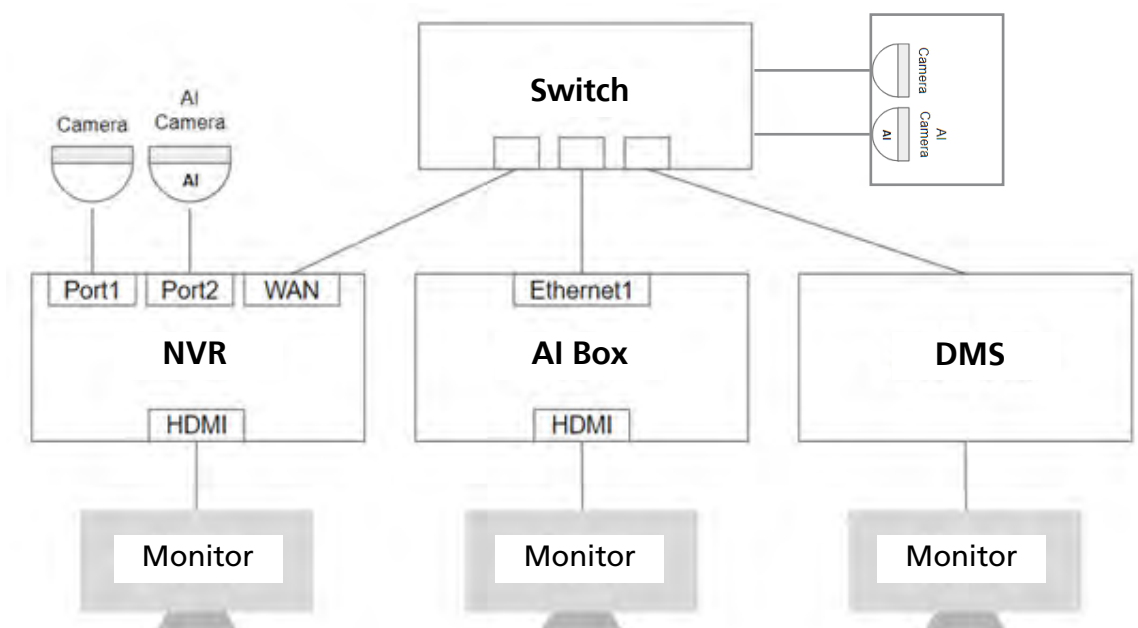
Far Objects

Classification of Objects at a distance

	Pro	Mid	Lite
			
Model	ZN-AIBOX16	ZN-AIBOX8	ZN-AIBOX4
Memory	8GB	4GB	
Main Monitor	HDMI (for diagnostic)		
Main Monitor Resolution	Up to 1080p (for diagnostic)		
Number of Video Stream	Up to 16ch	Up to 8ch	Up to 4ch
Max Video Input Resolution	4K @ 120fps (1080P @ 480fps)	4K @ 60fps (1080P @ 240fps)	4K @ 30fps (1080P @ 120fps)
Total input pixel count per second*	2M x 30fps x 16Ch	2M x 30fps x 8Ch	2M x 30fps x 8Ch
Video Input Method	RTSP, Onvif		
Supported Input Video Format	H.265 / H.264		
Number of Annotated Video Output Stream	16 + 1 (Channel0 encoding)	8 + 1 (Channel0 encoding)	4 + 1 (Channel0 encoding)
Video Output Stream Method	RTSP over TCP, RTSP over Websocket		
Alarm Input	4 Ch		
Alarm Output	1 Ch		
Internal HDD	Internal SD Card Slot		
USB	USB3.0 X 2 ports		USB3.0 X 2 ports
RS-485	1		
RS-232	-		
LAN	10 / 100 / 1000Mbps x 2		10 / 100 / 1000Mbps x 2
Watchdog	Yes		
Cooling Fan	-		
Power Supply	12V / 2A adaptor		
Power Consumption	20W max. without HDD		
Temperature	0°C ~ 40°C		
Humidity	10 ~ 90% NC		
Dimension	200 x 131 x 38		
Weight	0.6kg Net, 1.1kg Gross		
Certification	CE, FCC, KC		

* The total input pixel count per second from the connected cameras cannot exceed the specified capacity. So, please adjust either the resolution or fps of the connected cameras or reduce the number of connected channels.

CONNECTION EXAMPLE



PRO - MID - LITE

Main Features		<ul style="list-style-type: none"> - Deep learning based AI Engine and Analytics Rule Engine - Various AI Video Analytics Package - Can be used for Surveillance, Business Intelligence, Access Control, Loss Prevention, etc - Compatible existing Onvif based VMS, NVR/DVR, Alarm monitoring system - Easy integration with annotated video stream - Easy integration with various APIs and Protocols (Onvif, REST, E-mail, TCP, RS485) - HTML5 Web based Configuration
AI Engine	Detector	Deep learning based Object Detection & Classification <ul style="list-style-type: none"> - Person, Car, Bike - Other objects Special camera support <ul style="list-style-type: none"> - Thermal (Human only) - Fisheye (Human only)
	Tracker	Multi object Tracking
	Recognizer	Face Recognition Engine License Plate Recognition Engine
	Behavior Analyzer	Optional
Event Trigger	Behavior Detection Trigger	Intrusion, Occupancy, Loitering, Stopping, Enter/Exit, Line Crossing, Direction, Tailgating
	Counting Trigger	Object Counting (Line, Zone, Queue (Presence)), Event Counting
	System Trigger	Alarm-In, Recurrence
	Recognition Trigger	Face Recognition , License Plate Recognition
	False Alarm Filter	Auto & Manual False Alarm Filter
Event Action	Combined with other triggers	Yes
	Network Action Handler	Onvif, HTTP, TCP, E-mail, FTP
	System Action Handler	Relay Out, RS485
	Annotated Video Stream	Video Popup on Channel 0 multi view stream
	Pre/Post snapshot	Yes
Analytics Report	Recording Video	Event triggered recording on SD card, Cloud, etc
	Counter Report	Number of objects (Human, Car, Bike, etc..) in zones Line crossing counting (Line cross, Enter, Exit) Event counting
	Visitor Analytics Report	Age, Gender, VIP (Need to enable face recognition)
	Queue Management Report	Queue length, Average Queue Time
	Heatmap Report	Yes
UI	Pathmap Report	Yes
	Web UI	HTML5 Web UI (No Plugins)
API	API	Onvif, REST

* Some features will require extra licenses.

** Some features will be available later on. Please ask our sales team.

Model	Type	Resolution FPS	Lens	Sensor	WDR	IR	I/O	MIC	Audio	Alarm	VCA	Power
IPN1302SV	Box	2MP / 25fps	CS	1/2.8"	T-WDR	–	1/1	–	1/1	1/1	Yes	12V / PoE
IPN1402HD	Box	2MP / 25fps	CS	1/2.9"	D-WDR	–	–	–	–	–	Yes	PoE
IPN8102HD-W	Pinhole	2MP / 25fps	2.8mm	1/2.8"	D-WDR	–	–	–	–	–	–	12V / PoE
IPN302SV	Indoordome	2MP / 25fps	3mm	1/2.7"	T-WDR	–	–	–	–	–	Yes	PoE
IPN3402HD	Indoordome	2MP / 25fps	3 - 9mm	1/2.9"	D-WDR	35m	–	–	–	–	Yes	12V / PoE
IPN362HD	Outdoordome	2MP / 25fps	3.6mm	1/2.9"	D-WDR	10m	–	–	–	–	Yes	12V / PoE
IPX3802SV	Outdoordome	2MP / 25fps	2.8 - 8mm MFZ	1/2.7"	T-WDR	–	1/1	–	1/1	1/1	Yes	12V / PoE
IPN3502SV	Outdoordome	2MP / 25fps	2.8 - 12mm MFZ	1/2.8"	T-WDR	40m	1/1	–	–	–	Yes	12V / PoE
IPN3502SV-IR	Outdoordome	2MP / 25fps	2.8 - 12mm MFZ	1/2.8"	T-WDR	–	1/1	–	–	–	Yes	12V / PoE
IPN6802HD	Bullet	2MP / 25fps	4.3mm	1/2.9"	D-WDR	20m	–	–	1/1	1/1	Yes	12V / PoE
IPN6702HD	Bullet	2MP / 25fps	2.8 - 12mm MFZ	1/2.9"	D-WDR	35m	–	–	–	–	Yes	12V / PoE
IPN6702SV-722	Bullet	2MP / 25fps	7 - 22mm MFZ	1/2.8"	T-WDR	60m	1/1	–	1/1	1/1	Yes	12V / PoE+
IPN6702SV	Bullet	2MP / 25fps	2.8 - 12mm MFZ	1/2.8"	T-WDR	40m	1/1	–	1/1	1/1	Yes	12V / PoE+
IPN2103HD	Fisheye	3MP / 14fps	1.2mm	1/2.5"	D-WDR	–	1/1	–	–	–	Yes	12V / PoE
IPX4602SV	PTZ	2MP / 25fps	4.3 - 129mm	1/2.8"	T-WDR	–	1/1	–	4/2	4/2	Yes	24V / PoE+

VCA - Video Analytics



_People and Vehicle Counting

This feature counts the people and vehicles that pass through the setup „lines“ with precision. It recognizes directions, so it can differentiate whether they are entering or exiting. It can also measure the speed of the objects. This feature is ideal for retail: counting customers, identifying trends and alerting staff when a group gathers in a defined location.



_Stopping and Dwell Detection

Objects that are stopped inside a zone, or remain inside a zone for longer than the defined amount of time will trigger an alarm. Ideal for identifying a loitering person.



_Intrusion Detection

For perimeter security and crime prevention cameras can be used as intrusion detection sensor. An alarm is generated when a pre-determined object (person or vehicle) crosses into the detection zone. Equally, an alarm is generated when an object crosses from the inside to the outside of a detection zone.



_Directional Detection

Objects that travel in the configured direction (within the limits of the acceptance angle) through a zone or over a line trigger an alarm. This can be used for traffic control and entry/exit monitoring.



_Tailgating Detection

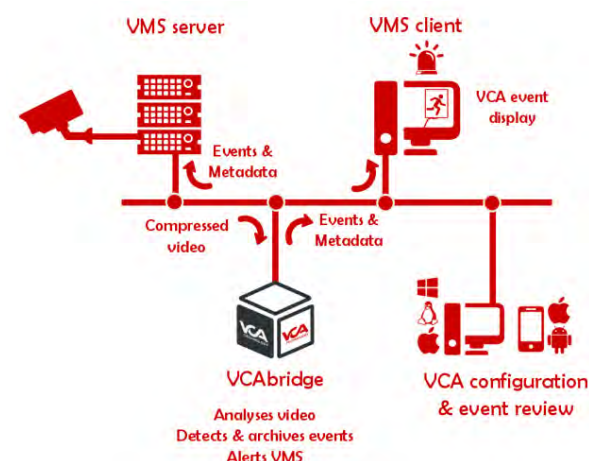
Object tailgating is defined as two objects crossing a virtual line or zone within in a pre-defined time frame. This is suitable for vehicles or with people in an access control setting.



	All-in-One Stand Alone Analytics Appliance	
	VBP2000	VBP3510
Supported Browsers	IE*, Safari*, Chrome, Firefox* (latest versions)	
Supported Clients	PC, iPad*, iPhone*, Android	
No. Channels	1 channel @ 1080p 30fps 4 channels @ D1 30fps	4 channels @ 1080p 30fps 8 channels @ 720p 30fps 16 channels @ D1 30fps
Software Update	Automatic or Manual	
Supported Video Format	H.264, MJPEG	
Digital Input / Output	2 / 2	4 / 4
RS-485	1	2
Audio Streaming	-	
Audio Compression	-	
Audio Input / Output	-	
Video Input Method	RTSP, ONVIF, Supported VMS / NVR* / PSIM* Platforms	
Output Data Format	Events(TCP*, HTTP*, SMTP, VMS / NVR / PSIM Client) Metadata(XML, JSON)*	
Web Interface	HTML5 via embedded web server, No plugins necessary	
API*	RESTful API for 3rd party integration and customization	
Event Sources	Digital Input (DI), any analytics rule	
Event Actions	Digital Output (DO) E-mail, TCP*, HTTP* and FTP* notification Local event log*	
Tamper	Camera Tamper Alert, Loss of Video Input Connection Alert	
Object Tracking	Robust object tracking engine tracks through occlusion, high probability of detection, low false positive rate. Multiple modes permit optimization for intrusion detection or business intelligence tracking	
Abandoned Object Detection*	Detects objects left or removed from a scene	
Object Counting	Accurate people and vehicle counting, even in dense scenes	
Event Rules	Intrusion detection, Shake cancellation, Tamper detection, Enter & exit filters, Appear & disappear filters, Stopping filter, Dwell filter, Direction filter, Counting, Abandoned object filter*, Removed object filter*, Zones & lines, Speed filter, 3D calibration, Tailgating filter, Logical rules*, People Tracker*, Color Filter*	
Material / Color	Aluminum; Anodized black	
Power Source / Consumption	DC 12V / 9.2W @ 12VDC	DC 12V / 15.4W @ 12VDC
Operating Condition	-10°C ~ 50°C	
Weight	0.9kg	1.8kg
Approvals	CE, FCC, KC	

*Please check the availability with your account manager.

System Architecure



	2 MEGAPIXEL BOX CAMERA	
	IPN13025V	IPN1402HD
Image Sensor	1/2.8" CMOS	1/2.9" CMOS
Compression	H.264, MJPEG	
Max. Resolution	1080p	
Effective Pixel	1920 x 1080	
Video Frame Rate	25fps@HD 1080p	
Lens	CS-Mount	
Iris	Manual/ DC Iris	
S/N Ratio	50dB or more	
Monitor Output	1 x BNC (for installation)	-
Alarm In-/Output	1 / 1	-
Audio input/-output	1 / 1	-
Audio Codec	G.711	-
Day/Night	Mechanical	Digital
Min. Illumination	0.03 Lux (Color) 0.006 Lux (B/W, DSS on)	0.5 Lux (Color) 0.01 Lux (B/W, DSS on)
AGC/BLC/DNR/WDR	Yes / Yes / Yes / Yes, T-WDR	Yes / Yes / Yes / Yes, D-WDR
Network Interface	10/100 Base T	
Protocols	TCP/IP, UDP/IP, HTTP, RTSP, RTP, RTP/UDP, RTP/TCP, SNTP, mDNS, UPnP, SMTP, SOCK, IGMP, DHCP, DDNS, SSL v2/v3, IEEE 802.1X, SSH, SNMP v2/v3	
Remote Access	IE 7.0+	
Micro SD Memory	Integrated SD slot	
Motion Detection	Yes	
Operating Voltage	12VDC	-
PoE	Yes (IEEE 802.3af)	
Power Consumption	400mA @12VDC	3.84W @PoE
Operating Temperature	0°C ~ 50°C	-10°C - 50°C
Housing / IP / IR	Aluminium / - / -	Polycarbonat / - / -
Weight	500g	200g
Dimensions WxHxD	71mm x 64mm x 140mm	64mm x 50mm x 97.5mm
Certificates	ONVIF (Profile S), CE, FCC	



2 MEGAPIXEL PINHOLE CAMERA	
	IPN8102HD-W
Image Sensor	1/3" CMOS
Compression	H.264, MJPEG
Max. Resolution	1080p
Effective Pixel	1920 x 1080
Video Frame Rate	25fps@ HD 1080p
Lens	2.8mm, F2.8
FOV (horiz.)	103°
Iris	-
S/N Ratio	50dB or more
Monitor Output	-
Alarm Ein / Ausgang	-
Audio Ein/ Ausgang	-
Audio Codec	-
Day/Night	Digital D/N
Min. Illumination	Color: 1.0 lux / SW: 0.007 lux (DSS ON)
AGC/BLC/DNR/WDR	Yes / Yes / Yes / Yes
Network Interface	10/100 Base T
Protocols	TCP/IP, UDP/IP, HTTP, RTSP, RTCP, RTP/UDP, RTP/TCP, SMTP, mDNS, UPnP, SMTP, SOCK, IGMP, DHCP, DDNS, SSL v2/v3, IEEE 802.1X, SSH, SNMP v2/v3
Remote Access	IE 7.0+
Micro SD Memory	Integrated SD slot
Motion Detection	Yes
Operating Voltage	12VDC
PoE	Yes (IEEE 802.3af)
Power Consumption	max. 3.6W@12VDC
Operating Temperature	-10°C ~ 50°C
Housing	Polycarbonat
Weight	Camera unit: 225g Camera: 250g
Dimensions	Camera: 28.5mm (ø) x 25mm (H) Camera unit: 107mm (W) x 26mm (H) x 124mm (D)
Certification	OnVIF (Profile S), FCC, CE

2 MEGAPIXEL INDDOR DOME CAMERA	
IPN302SV	IPN3402HD
1/2.8" CMOS	1/2.9" CMOS
H.264, MJPEG	
1080p	
1920 x 1080	
25fps@ HD 1080p	
3.0mm	3 - 9mm
106.7°	110° - 35.5°
DC	
50dB or more	
-	Yes
-	
-	
Digital D/N	Mechanical
Color: 0.04 lux / SW: 0.006 lux (DSS ON)	Color: 0.5 lux / SW: 0lux (IR ON)
Yes / Yes / Yes / Yes, T-WDR	Yes / Yes / Yes / Yes, D-WDR
10/100 Base T	
QoS Layer 3 DiffServ, TCP/IP, UDP/IP, HTTP, HTTPS, FTP, RTSP, RTCP, RTP/UDP, RTP/TCP, mDNS, UPnP™, SMTP, DHCP, DNS, DynDNS, NTP, SNMPv1/v2c/v3(MIB-II), IGMP, ICMP, SSLv2/v3, TLSv1/1.2, SRTP, RTMP, IEEE802.1X*	
IE 7.0+	
Integrated SD slot	
Yes	
-	12VDC
Yes (IEEE 802.3af)	
max. 4.5W@PoE	max. 7W@12VDC
0°C ~ 40°C	
Aluminum Die-Casting	Polycarbonat
270g	470g
Ø105.5mm x 55.5mm	Ø148mm x 100mm
FCC, CE, KC, IK09, UL	FCC, CE, KC

2 MEGAPIXEL OUTDOOR DOME CAMERA		
	IPN362HD	IPN3802SV
Image Sensor	1/2.9"	1/2.8"
Compression	H.264, MJPEG	
Max. Resolution	1920 x 1080	
Video Frame Rate	25fps@HD 1080p	
Lens	3.6mm	2.8 - 8.0mm
FOV (horiz.)	87°	106° - 57°
Iris	-	DC
S/N Ratio	50dB or more	
Monitor Output	-	Yes
Alarm In-/Output	-	1 / 1
Audio input/-output	-	1 / 1
Audio Codec	-	G.711
Day/Night	Mechanical	
Min. Illumination	Color: 0.5 Lux / B/W: 0 Lux (IR LED On)	Color: 0.03Lux / B/W : 0.006Lux (DSS ON)
IR	8 IR LEDs, max. 10m	-
WDR	Yes, D-WDR	Yes, T-WDR
AGC/BLC/DNR	Yes / Yes / Yes	
Network Interface	10/100 Base T	
Protocols	IPv4, IPv6, QoS Layer 3 DiffServ, TCP/IP, UDP/IP, HTTP, HTTPS, FTP, RTSP, RTCP, RTP/UDP, RTP/TCP, mDNS, UPnP™, SMTP, DHCP, DNS, DynDNS, NTP, SNMPv1/v2c/v3(MIB-II), IGMP, ICMP, SSLv2/v3, TLSv1/1.2, SRTP, RTMP, IEEE802.1X*	
Remote Access	IE 7.0+	
Micro SD Memory	Integrated SD slot	
Motion Detection	Yes	
Operating Voltage	12VDC	12VDC / 24VAC
PoE	Yes (IEEE 802.3af)	Yes (IEEE 802.3af)
Power Consumption	4.2W @ DC 12V	16.2W @ DC 12V
Operating Temperature	-20°C ~ 50°C	[DC12V/AC24V] -20°C ~ 50°C [PoE] 0°C ~ 50°C; Built-in fan and heater
Housing	Aluminum	
Protection Class	IP66 / IK10	
Weight	400g	1.6kg
Dimensions WxHxD	Ø115,9 mm x 74.5 mm	Ø154.4 mm x 130 mm
Certificates	FCC, CE, KC, IP66, IK10	



	2 MEGAPIXEL OUTDOOR DOME CAMERA	
	IPN3502SV	IPN3502SV-IR
Image Sensor	1/2.8"	
Compression	H.264, MJPEG	
Max. Resolution	1920 x 1080	
Video Frame Rate	25fps@HD 1080p	
Lens	2.8 - 12mm	
FOV (horiz.)	99° - 35°	
Iris	DC	
S/N Ratio	50dB or more	
Monitor Output	-	
Alarm In-/Output	1 / 1	
Audio input/-output	1 / 1	
Audio Codec	G.711	
Day/Night	Mechanical	
Min. Illumination	0.03 Lux (DSS On) / B/W : 0.006 Lux (DSS On)	Color: 0.03 Lux (DSS On) / B/W : 0 Lux (IR LED On)
IR	-	28 Smart IR LEDs, max. 40m
WDR	Yes, T-WDR	
AGC/BLC/DNR	Yes / Yes / Yes	
Network Interface	10/100 Base T	
Protocols	QoS Layer 3 DiffServ, TCP/IP, UDP/IP, HTTP, HTTPS, FTP, RTSP, RTP, RTCP, RTP/UDP, RTP/TCP, mDNS, UPnP™, SMTP, DHCP, DNS, DynDNS, NTP, SNMPv1/v2c/v3(MIB-II), IGMP, ICMP, SSLv2/v3, TLSv1/1.2, SRTP, RTMP, IEEE802.1X	
Remote Access	IE 7.0+	
Micro SD Memory	Integrated SD slot	
Motion Detection	Yes	
Operating Voltage	12VDC	
PoE	Yes (IEEE 802.3af)	
Power Consumption	8 W@DC12V (Heater on), 9.5W@PoE (Heater on)	9 W@DC12V(Heater on, IR-LED on), 10.5W@PoE(Heater on, IR-LED on)
Operating Temperature	-40°C ~ 50°C	
Housing	Aluminum, Anti-vandal bubble (PC)	
Protection Class	IP66 / IK10	
Weight	1.2kg	
Dimensions WxHxD	Ø155 mm x 129 mm	
Certificates	FCC, CE, KC, IP66	



	2 MEGAPIXEL BULLET CAMERA			
	IPN6802HD	IPN6702HD	IPN6702SV	IPN6702SV-722
Image Sensor	1/2.9"		1/2.8"	
Compression	H.264, MJPEG			
Max. Resolution	1920 x 1080			
Video Frame Rate	25fps@HD 1080p			
Lens	4.3mm	2.8 - 12mm		7.0 - 22mm
FOV (horiz.)	74.4°	90° - 35°	99° - 35°	
Iris	-	DC		
S/N Ratio	50dB or more			
Monitor Output	-		Yes	
Alarm In-/Output	1 / 1			
Audio in-/output	-		1 / 1	
Audio Codec	-		1 / 1	
Day/Night	Mechanical			
Min. Illumination	Color: 1.0Lux B/W : 0 Lux (IR LED On)	Color: 0.5Lux B/W : 0 Lux (IR LED On)	Color: 0.3Lux B/W : 0 Lux (IR LED On)	
IR	8 Smart IR LEDs, max. 20m	16 Smart IR LEDs, max. 35m	16 Smart IR LEDs, max. 40m	16 Smart IR LEDs, max. 60m
WDR	Yes, D-WDR		Yes, T-WDR	
AGC/BLC/DNR	Yes / Yes / Yes			
Network Interface	10/100 Base T			
Protocols	QoS Layer 3 DiffServ, TCP/IP, UDP/IP, HTTP, HTTPS, FTP, RTSP, RTCP, RTP/UDP, RTP/TCP, mDNS, UPnP™, SMTP, DHCP, DNS, DynDNS, NTP, SNMPv1/v2c/v3(MIB-II), IGMP, ICMP, SSLv2/v3, TLSv1/1.2, SRTP, RTMP			
Remote Access	IE 7.0+			
Micro SD Memory	Integrated SD slot			
Motion Detection	Yes			
Operating Voltage	12VDC			
PoE	Yes (IEEE 802.3af)		Yes, PoE+	
Power Consumption	6W @ DC 12V	9W @ DC 12V	17W @ DC12V	
Operating Temperature	-20°C ~ 50°C		-40°C ~ 50°C	
Housing	Aluminum			
Protection Class	IP66			
Weight	600g	870g	895g	
Dimensions WxHxD	76mm x 73.5mm 235mm	86mm x 83.5mm x 280mm		
Certificates	FCC, CE, KC, IP66, UL	FCC, CE, KC, IP66		



2 MEGAPIXEL OUTDOOR PTZ	
	IPX4602SV
Image Sensor	1/2.8"
Compression	H.264, MJPEG
Max. Resolution	1920 x 1080
Max. Resolution	25fps@HD 1080p
Lens	4.3mm - 129.0mm
FOV (horiz.)	63.7° - 2.3°
Iris	DC
S/N Ratio	50dB or more
Monitor Output	-
Alarm In-/Output	4 / 2
Audio input/-output	1 / 1
Audio Codec	G.711
Day/Night	Mechanical
Protocols	IPv4, IPv6, QoS Layer 3 DiffServ, TCP/IP, UDP/IP, HTTP, HT-TPS, FTP, RTSP, RTP/UDP, RTP/TCP, mDNS, UPnP™, SMTP, DHCP, DNS, DynDNS, NTP, SNMPv1/v2c/v3(MIB-II), IGMP, ICMP, SSLv2/v3, TLSv1/1.2, SRTP, RTMP
Pan/Tilt	Pan Range: 360° Endless Rotation Tilt Range: -5° ~ 185° Auto-flip
Manual Pan/Tilt Speed	0.01° ~ 120° /sec
Preset Pan/Tilt Speed	600° /sec
Presets	255
Privatzone	8
Interfaces	10/100 Base T
Micro SD Memory	Integrated SD slot
Operating Voltage	24VAC
PoE	Yes, PoE+
Power Consumption	46W@AC 24V(heater on), 15W@PoE+
Operating Temperature	[AC24V] -40°C ~ 50°C PoE+] 0°C ~ 50°C; Built-in fan and heater
Housing	Aluminum
Protection Class	IP66 / IK10
Weight	4.6kg
Dimensions	Ø232 mm x 278.1 mm
Certificates	FCC, CE, IP66, IK10

2 MEGAPIXEL FISHEYE CAMERA	
	IPN2103HD
Image Sensor	1/2.5"
Compression	H.264, MJPEG
Max. Resolution	1080p
Effective Pixel	2048 x 1536
Video Frame Rate	14fps@ 2048 x 1536
Lens	1.2mm
FOV (horizontal/vertical)	180° / 180°
Iris	-
S/N Ratio	50dB or more
Monitor Output	Yes
Alarm Ein / Ausgang	1 / 1
Audio Ein/ Ausgang	1 / 1
Audio Codec	G.711
Day/Night	Digital D/N
Min. Illumination	Color: 1.0 Lux, B/W : 0.01Lux (DSS ON)
AGC/BLC/DNR/D-WDR	Yes / Yes / Yes / Yes
Network Interface	10/100 Base T
Protocols	IPv4, IPv6, QoS Layer 3 DiffServ, TCP/IP, UDP/IP, HTTP, HT-TPS, FTP, RTSP, RTP/UDP, RTP/TCP, mDNS, UPnP™, SMTP, DHCP, DNS, DynDNS, NTP, SNMPv1/v2c/v3(MIB-II), IGMP, ICMP, SSLv2/v3, TLSv1/1.2, SRTP, RTMP, IEEE802.1X
Remote Access	IE 7.0+
Micro SD Memory	Integrated SD slot
Motion Detection	Yes
Operating Voltage	12VDC
PoE	Yes (IEEE 802.3af)
Power Consumption	max. 3.6W@12VDC
Operating Temperature	0°C ~ 50°C
Housing	Polycarbonat
Weight	360g
Dimensions	Ø144mm x 57.2mm
Certification	FCC, CE, KC



PMC-3000

PMC-3010

CMA-U100

CMA-4600

Pendant Mount Cap

Pole Mount

IPN352HD IPN2103HD IPN3102HD IPN3202HD IPN3402HD IPN3502HD IPX5502HD	WMB-3000P CMB-3000P	IPX3702HD	WMB-3000P CMB-3000P
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IPN6602HD IPN6702HD IPN6802HD	WMB-3000P CMB-3000P ODE-1000T JBK-U100 WMB-3000 WMB-3000S	IPX4602HD	-
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WMB-3000P

WMB-3000S

WMB-4600

Wall Mount Bracket

-	PMC-3000 PMC-3010	IPX3702HD	-	IPX4602HD	-
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PMA-U100

PMA-4600

Pole Mount

IPN6602HD IPN6702HD IPN6802HD	WMB-3000P CMB-3000P ODE-1000T JBK-U100 WMB-3000 WMB-3000S	IPX4602HD	-
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FMB-3502

Flush Mount Bracket

IPN3502HD-5211 IPN5311 IPN5211IR IPN5311IR	
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JBK-U100

Junction Box Kit

IPN6602HD IPN6702HD IPN6802HD	WMB-3000P CMB-3000P PMA-U100 CMA-U100 ODE-1000T WMA-U100
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PTB-IPT2500

Wall Mount Bracket

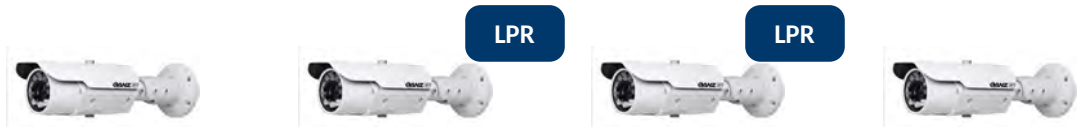
IPT2500MR



Model	Type	Resolution FPS	Lens	WDR	IR	I/O	MIC	Audio	Alarm	VCA	Power
ZN8-C12-N	Box	12MP / 20fps	CS, 1/1.7"	D-WDR	-	1/1	•	1/1	S		12V / PoE
ZN8-VB2M722-N	Bullet	4MP / 25fps	2.7-12mm MFZ	T-WDR	40m	1/1	-	1/1	S / O		12V / PoE
ZN8-BB2M312-NR	Bullet	4MP / 15fps	3-12mm	D-WDR	30m	-	-	-	S / O		12V / PoE
ZN8-BB2M722-NR	Bullet	2MP / 25fps	2.8-12mm	D-WDR	30m	-	-	-	S / O		12V / PoE
ZN8-BB12M412-N	Bullet	12MP / 20fps	4.1-12mm MFZ	T-WDR	70m	1/1	-	1/1	S		12V / PoE
ZN8-P4NTAF60L	PTZ	2MP / 25fps	22x AF Zoom	D-WDR	100m	1/1	-	7/2	-		24V
ZN8-P3X30-NIR	PTZ	3MP / 25fps	30x AF Zoom	D-WDR	120m	1/1	-	7/2	-		24V
ZN8-P3X12-NIR	PTZ	3MP / 25fps	12x AF Zoom	D-WDR	100m	1/1	-	2/1	-		12V / PoE+



12 MEGAPIXEL BOX CAMERA	
	ZN8-C12-N
Image Sensor	1/3" CMOS
Compression	H.265, H.264 ,MJPEG
Triple Stream	Yes, configurable
Resolution options	Stream1: 4000×3000@20fps, 4096×2160/3840×2160/ 1920×1080/1280×720 @25/30fps Stream2: D1/VGA/640×360/CIF/QVGA @25/30fps Stream3: VGA/CIF/QVGA @25/30fps
Video Frame Rate	max. 25fps
Day/Night	Mech. Day/Night
Min. Illumination	Color: 0.009 Lux @(F1.2,AGC ON) B/W: 0.0009 Lux @(F1.2,AGC ON)
Digital Noise Reduction	2/3DNR
WDR	D-WDR
Audio input/-output	1 / 1, Built-in Mic
Audio Codec	G.711, RAW_PCM
Network Interface	10 / 100 Base-T
Alarm In-/Output	1 / 1
Protocols	IPv4/IPv6, 802.1x, HTTP, HTTPS, TCP/IP, UDP/IP, RTSP, DHCP, NTP, RTCP/RTP, PPPoE, SMTP, DNS, UPnP, FTP, APR, SNMP
HLC	Yes
Motion Detection	Yes
ROI	Yes
Micro SD Memory	Micro SD slot, Max 128GB
Operating Voltage	AC24V/DC12V/POE
Power Consumption	5W
Operating Temperature	-20°C ~ 50°C
Dimensions	150.2mm x75mm x 69.7mm
Weight	400g
Certification	CE, FCC



	2 MEGAPIXEL IR BULLET			12 MP IR BULLET
	ZN8-VB2M722-N	ZN8-BB2M312-NR	ZN8-BB2M722-DR	ZN8-BB12M412-N
Resolution	2MP			12MP
Image Sensor	1/2.8” Progressive Scan CMOS	1/2.9” Progressive Scan CMOS	1/2.8” Progressive Scan CMOS	1/1.7” Progressive Scan CMOS
Compression	H.264/265, MJPEG	H.264, MJPEG	H.264/265, MJPEG	
Stream	Dualstream		Triplestream	
Resolution Options	Stream 1: 1920x1080 Stream 2: D1		Stream1: 1920×1080 @25fps Stream2: D1/VGA/CIF @25/30fps Stream3: 1920×1080/VGA	Stream1: 4000×3000 @20fps, Stream2: VGA @25fps Stream3: VGA@25fps
Video Frame Rate	max. 25fps			
FOV (horiz.)	40.7 °~ 16.8 °	87°~ 35°	40.7°~16.8°	98°~ 34.5°
Lens	Motorized lens 7 - 22mm	Motorized lens 3 - 12mm	Motorized lens 7 - 22mm	Motorized lens 4.1~12.8mm
Day/Night	Mech. Day/Night			
Min. Illumination	Color 0.001Lux IR ON 0 Lux	Color 0.01Lux IR ON 0 Lux	Color 0.001Lux IR ON 0 Lux	Color 0.009Lux 0Lux IR LED
IR LED / Range	60m	40m	60m	80m
Digital Noise Reduction	2/3DNR			
WDR	T-WDR > 120dB	D-WDR	T-WDR > 120dB	D-WDR
Audio input/-output	1 / 1			
Audio Codec	G.711, RAW_PCM			
Network Interface	10 / 100 Base-T			
Alarm In-/Output	1 / 1		- / 1	1 / 1
Protocols	HTTP, HTTPS, TCP, UDP, RTSP, DHCP, NTP, PPPoE, SMTP, FTP, UPnP, Unicast, Multicast		IPv4/IPv6, 802.1x, HTTP, HTTPS, TCP/IP, UDP/IP, RTSP, DHCP, NTP, RTCP/RTP, PPPoE, SMTP, DNS, UPnP, FTP, APR, SNMP	
HLC	Yes			
Motion Detection	Yes			
ROI	Yes			
Micro SD Memory	Micro SD/SDHC/SDXC slot, Max 128GB	Micro SD/SDHC/SDXC slot, Max 64GB	Micro SD, Max 128GB	
Protection Class	IP66		IP67	
Operating Voltage	DC12V/POE			
Power Consumption	5W (IR LED OFF) 8W (IR LED ON)			
Operating Temperature	-40°C ~ 60°C			
Dimensions	φ110 × 377mm			
Weight	1680g			
Certification	CE, FCC			
LPR	-	Supporting EU+CIS number plates Recognition rate of 97% or higher Max recognition speed of 50km/h		-



Wallmount & Power Supply
inclusive



Wallmount inclusive



Wallmount
inclusive

	2 MEGAPIXEL PTZ	5 MEGAPIXEL PTZ	3 MEGAPIXEL PTZ
	ZN8-P4NTAF60L	ZN8-P5X12DL	ZN8-P3X30-DL-H
Resolution	2MP	5MP	3MP
Image Sensor	1/2.8" CMOS		
Compression	H.264, MJPEG	H.265, H.264, MJPEG	
Dualstream	Dualstream	Triple Stream	
Resolution Options	1920 x 1080 / 25fps	Stream1: 2560×1920 @25fps Stream2: VGA @25fps Stream3: VGA @25fps	Stream1: 2048×1536 @25fps Stream2: VGA @25fps Stream3: VGA @25fps
Video Frame Rate	max. 25fps		
Lens	4.7mm - 103mm, 22x optical, 12x digital	4.7 - 56.4mm 12x optical, 16x digital	4.5 - 135mm 30x optical, 16x digital
Day/Night	Mechanical		
Min. Illumination	0.02 Lux (Color) 0.002 Lux (B/W), 0 Lux (IR on)	0.01Lux (Color) 0Lux (IR ON)	
IR	Yes (Smart IR), max. 100m	Yes (Smart IR), max. 80m	Yes (Smart IR), max. 200m
DNR	Yes, 2/3DNR		
WDR	D-WDR	T-WDR	
Audio input/-output	1 / 1		
Audio Codec	G.711, RAW PCM		
Network Interface	10 / 100 Base-T		
Alarm input/-output	7 / 2	2 / 1	7 / 2
Protocols	HTTP, HTTPS, TCP/IP, UDP/IP, RTSP, DHCP, NTP, PPoE, Unicast / Multicast, ONVIF	IPv4/IPv6, 802.1x, HTTP, HTTPS, TCP/IP, UDP/IP, RTSP, DHCP, NTP, RTCP/RTP, PPPoE, SMTP, DNS, UPnP, FTP, APR, SNMP	
Pan Angle / Speed	360° (endless), 0.01° - 180°/sec		
Tilt Angle / Speed	-10° ~ 90°, 0.01° - 90°/sec		
Presets	255	300	400
Tour	Max. 12		
Auto-Scan	Max. 12		
Track	Max. 6		
Privacy Masking	Yes		
Motion Detection	Yes		
Micro SD-Card	Yes (up to 64GB)	Yes (up to 128GB)	
Operating Voltage	24VAC	PoE+ / 12VDC	PoE+ / 24VAC
Power Consumption	40W max.	25W max.	40W max.
Protection Class	IP66	IP66, TVS4000V	
Operating Temp	-40°C - +60°C	-55°C - +60°C	
Dimensions	Ø 205mm x 332mm (H)	146.6×139.3×218.3mm	Ø 226 × 362.8mm (H)
Weight	4.3kg	1.5kg	5.2kg



GANZ Thermal Solutions

The wide range of thermal camera models from GANZ offer a wide variety of possible applications - not only in the area of security. ThermalCAMERAs do not require visible light; Influences such as fog or smoke, in which conventional CAMERAs no longer offer any visibility, are no hindrance to this.



GANZ Thermal Solutions with Video Analytics

A special feature of this Thermalcameras series is the integrated and, as required, expandable GXi video analysis function. This will provide a more precise and significantly expanded monitoring function.

Furthermore, the ICE™ (Image Contrast Enhancement) technology ensures an improved image quality whether you choose the 9 or 30Hz version.

Hybridcameras provide analog connections as well as integration into an IP system. Compatibility is guaranteed by Onvif Profile S / G.



GANZ Thermal Solutions with Temperature detection

The Thermalcameras of the GANZ Genstar series enable exact temperature display - and this in up to eight freely definable zones.

Thanks to the high sensitivity and resolution, the accuracy and speed of the temperature display is given. It does not matter whether module, bullet, box or PTZ:

The right design and focal length are available for almost every application.

	CHOISE OF THERMAL CAMERA MODELS WITH VIDEO ANALYTICS
ZNT1-HAT24G35A	Thermal Bullet Camera, 17um, 50 NETD, Resolution 640X480, 30 fps, 50° HFOV, NTSC/PAL, VCA
ZNT1-HAT24G22A	Thermal Bullet Camera, 17um, 50 NETD, Resolution 640X480, 30 fps, 37° HFOV, NTSC/PAL, VCA
ZNT1-HAT24G25A	Thermal Bullet Camera, 17um, 50 NETD, Resolution 640X480, 30 fps, 18° HFOV, NTSC/PAL, VCA
ZNT1-HBT24G35A	Thermal Bullet Camera, 17um, 50 NETD, Resolution 640X480, 9 fps, 50° HFOV, NTSC/PAL, VCA
ZNT1-HBT24G22A	Thermal Bullet Camera, 17um, 50 NETD, Resolution 640X480, 9 fps, 37° HFOV, NTSC/PAL, VCA
ZNT1-HBT24G25A	Thermal Bullet Camera, 17um, 50 NETD, Resolution 640X480, 9 fps, 18° HFOV, NTSC/PAL, VCA



	CHOISE OF THERMAL CAMERA MODELS WITH TEMPERAT MEASUREMENT
ZNT8-B0F8-TAS	Thermal Bullet Camera, 20um, 40 NETD, Resolution 400*300, 30 fps, 8mm
ZNT8-B0F15-TAS	Thermal Bullet Camera, 20um, 40 NETD, Resolution 400*300, 30 fps, 15mm
ZNT8-B0F25-TAS	Thermal Bullet Camera, 20um, 40 NETD, Resolution 400*300, 30 fps, 25mm
ZNT8-B0F35-TAS	Thermal PTZ-Camera, 20um, 40 NETD, Resolution 400*300, 30 fps, 8mm
ZNT8-B0F50-TAS	Thermal PTZ-Camera, 20um, 40 NETD, Resolution 400*300, 30 fps, 25mm
ZNT8-P0M75-TAX32	Thermal / Opticale PTZ-Camera, 20um, 40 NETD, Resolution 400*300, 30 fps, 75mm / 10mm - 320mm



Nautilus

Rugged PTZ Platform

Rough environments require more. The extremely durable cameras of the Nautilus series can not get harmed so fast.

Numerous hardening tests:

Vibrations, high G-forces, strong wind or salt, the winner was always Nautilus.
Further special features are the integrated white and IR light LEDs, the quiet and without drive wedge belts Digital servos as well as 360 ° turnability.



Model		HD colour Day/Night 30X
Camera	Image Sensor	2.1 Megapixel 1/2.8" CMOS
	Max. Resolution & Bildrate	1920 x 1080p @ 25fps
	Scansystem	Progressive scan
	Min. Illumination	Color: 0.5 Lux B/W: 0.01 Lux ICR on
	S/N Ratio	52dB
	ICR	Auto / manual
	WDR	Yes
	DNR	3D
	BLC	An / Aus
	Privacy Masking	Yes
Lens	Protocols	CBC C-Dome, Overview, BBV485, Pelco D/P, Samsung SCC-3000 , Sensormatic, Forward Vision MICI-300, VCL, Vicon, Pelco CoaxitronTM, BBV UTC
	Lens	30:1, f = 4.3 to 129mm, F1.6 - F5.0
	F.O.V. (Field of View)	65.1 - 2.34°
	AUTOFOCUS	Yes
	Iris	Auto / manual

Also available as Hybrid version 'Thermal & IP'

Model		FHD - IP
Encoder	Video Compression	H.264
	Encoder Resolution	1080p / D1
	FPS	25
	Dualstream	Yes
	Protocols	TCP/IP, HTTP, DCHP, DNS, DDNS, RTP, RTSP, PPPoE, SMTP, NTP, UPnP, SNMP, FTP, QoS, HTTPS, IPv6
	Security	Password
ONVIF		Yes

Certification and Approvals	
CE-EN50130-4, EN61000-3-2 & 3-3.EN55022, EN60950-1	
UL	
FCC part 15	
IK10	
IP - IEC60529	
Vibration IEC60068-2-6	
Shock IEC60068-2-7	
Sea spray BS EN 60068-2-52	
Wind shear BS-6399-2	

Model Number	Description
LZ-NDNC40X	SD Analogue 40x, ¼" Super HAD II CCD, 670TVL, Wiper
LZ-NDNC40X-IR	SD Analogue 40x, ¼" Super HAD II CCD, 670TVL, Wiper, with IR & White Light Illuminator

Model Number	Description
LZ-NIJC	Intelligent Junction Box
LZ-NSJC	Standard Junction Box
LZ-10MUC	10m Cable
LZ-WMB	Universal Wall Bracket
LZ-UCS	Universal Column Bracket
LZ-SNB	Swan Neck Bracket
LZ-CMB	Corner Mount Bracket
LZ-PMB	Mid-Pole Mount Bracket



LZ-CMB



LZ-PMB



LZ-10MUC



LZ-UCS



LZ-WMB



LZ-SNB



	2 MEGAPIXEL 4-1 CAMERAS				
	LCWB-P-4-SN LCWB-PE-4-SN	LLTB-IR212PS-4-SN	LTWB-IR212P-4-SN	LDWB-IR212P-4-SN	LYWB-IR212P-4-SN LYWB-IR622P-4-SN
Image Sensor	Sony 1/2.8" IMX 290 LQR CMOS				
DSP/ISP	Nextchip NVP2450H				
Videonorm	PAL / NTSC; Progressive Scan				
Pixel Size	2.9 μm (H) × 2.9 μm (V)				
Effective Pixel	1945 (H) × 1097 (V) ca. 2.13MP				
Max. Resolution	1920 x 1080				
Video Frame Rate	1080P @25/30 fps				
Electronic Shutter	AUTO/ 1/50 (1/60) -1/50,000sec				
Min. Illumination	0.01 Lux (Color)	0.01 Lux (Color, high sensitivity) / 0 Lux (IR on)			
S/N Ratio	≥60dB (AGC OFF)				
Video Signal	AHD / CVI / TVI / CVBS (960H)				
Synchronisation	Internal				
Day/Night	External / Auto (ICR) / Color / B&W (OSD Switch)				
DNR	3 / 2 DNR				
WDR	True WDR (DOL-WDR)				
Light Compensation	Auto / BLC / WDR / OFF / HLC				
AE	Yes (optimized)				
AWB	Yes (optimized)				
AGC	Yes (optimized)				
Sence Up	Yes				
Image Setting	Yes				
Privacy Masking	Yes				
Motion Detection	Yes				
OSD Menu	Supports UTC + OSD Button on Cable				
Lens	CS-Mount	2.8-12mm 3MP HD			LYWB-IR212P-4-SN: 2.8-12mm 3MP HD LYWB-IR622P-4-SN: 6-22mm 3MP HD
Iris	DC				
IR LEDs	-	Φ 5 x 35 pcs	Φ 5 x 17 pcs		Φ 5 x 5 pcs
Max. IR Range	-	~41m, Smart IR	~20m, Smart IR		~50m, Smart IR
Material	Metallic Casing			Polycarbonat	Metallic Casing
Color	White / Grey		White	White / Grey	White / Black
Operating Voltage	LCWB-P-4-SN: DC12V / AC24 LCWB-PS-4-SN: AC230V	DC12V	Dual Voltage (DC12V / AC24V ±10%)		
Power Consumption	100mA	Max. 4.5W	Max. 3W		Max. 6W
IR CUT Filter	Dual IR-CUT Filter Switch				
Max. Range Video Signal	CVBS: 500m via Coax Cable (75-3/5) / AHD & CVI (1080P): 300m~400m / TVI (1080P): 300m				
Operating Temperature	-20°C ~ +60°C				
Humidity	≤95%RH (not condensing)				
Protection Class	IP55	IP66, vandal-proof		-	IP66, vandal-proof
Dimensions (mm)	136(L) * 56(H) * 70(B)	99(H)*145(Φ)	112(H)*147.8(Φ)	99.2(H)*130(Φ)	LYWB-IR212P-4-SN: 261(L)*118(B)*76(H) LYWB-IR622P-4-SN: 306.2(L)*76(B)*76(H)
Weight	450g	760g	550g	265g	865g



Modell		HYBRID RECORDER				
		DR-4M51-A-V	DR-8M52-A-V	DR-16M52-A-V	DR-16M55-RA	
Channels		4ch	8ch	16ch	16ch	
Monitoring	Input Signal	SD (960) / AHD, TVI (HD, FHD) / 3, 4, 5MP			SD (960) / AHD, TVI (HD, FHD) / 3, 4, 5MP, 4k15 (TBD)	
	Main Monitor	HDMI / VGA	HDMI / VGA	HDMI / VGA	VGA / HD (main/HD spot selectable)	
	Spot Out	1 (CVBS)			2 (CVBS)	
	Loop Through	-	-	-	YES	
	Motion Detection	YES				
Audio	Input Signal	4CH (10KOhm, 2.8Vpp)		4CH (10KOhm, 2.8Vpp)	16CH (10KOhm, 2.8Vpp)	
	Output Signal	1CH (600Ohm, 2.8Vpp)		1CH (600Ohm, 2.8Vpp)	1CH (600Ohm, 2.8Vpp)	
	Codec	G.711 ulaw				
Recording	Codec	H.264				
	Recording Rate	Up to 48FPS@ 5MP Up to 60FPS@ 4MP Up to 72FPS@ 3MP Up to 120FPS@ FHD Up to 120FPS@ 2CIF Up to 120FPS@ CIF	Up to 96FPS@ 5MP Up to 120FPS@ 4MP Up to 144FPS@ 3MP Up to 240FPS@ FHD Up to 240FPS@ 2CIF Up to 240FPS@ CIF	Up to 96FPS@ 5MP Up to 120FPS@ 4MP Up to 144FPS@ 3MP Up to 240FPS@ FHD (2/3/4/5MP when Noise Filter setting is Off) Up to 480FPS@ 2CIF Up to 480FPS@ CIF	Up to 160FPS@ 5MP Up to 240FPS@ 4MP Up to 240FPS @ 3MP Up to 480FPS @ FHD Up to 480FPS @ 2CIF Up to 480FPS@ CIF	
	Recording Resolution	CIF, 2CIF, D1, 960H, 720p, 1080p, 3MP, 4MP, 5MP				
	Alarm I/O	Alarm In	2CH			18CH (16CH+2CH), Pulled up to 5V via 10KOhm
		Alarm Out	1CH (RELAY)			8CH, RELAY (125VAC, 60VDC) / 8CH, O.C. (Pulled up to 5V via 1KOhm)
Storage	Internal HDD	1EA	2EA	2EA	Max 5EA w/ RAID5	
	External Storage	-			eSATA, NAS (FTP Server, for Backup)	
	Internal ODD	-			-	
Interfaces	USB	2x front			3 ports (2Front + 1 Rear)	
	RS-485	1			2	
	RS-232	-			1	
	LAN	1x 10 / 100Mbps	1x 10 / 100 / 1000Mbps	1x 10 / 100 / 1000Mbps	1 (LAN) + 1 (WAN) - 10 / 100 / 1000Mbps	
	Remote Control	Yes				
ETC	Signal Switch	-				
	Watchdog	Yes				
	Cooling Fan	-	1	2		
Power	Power Supply	12V/2A	12V/3A		DC12V, Adaptor, 7.5~10A, 100~200V AC, 50-60Hz	
	Power Consuption	6W max. without HDD	13W max. without HDD	14W max. without HDD	21W max. without HDD	
Environment	Temperature / Humidity	0°C ~ 40°C / 10 ~ 90% NC				
Chassis	Dimension (mm)	260(W) x 262.6(D) x 44(H)	380(W) x 314.6(D) x 44(H)		430(W) x 367(D) x 88.4(H)	
	Net Weight(kg)	1.54	2.52	2.58	6.2	
	Gross Weight(kg)	2.28	3.63	3.69	7.3	
Certification	UL, CUL, FCC, CE	CE, FCC, c-Tick				
Monitoring	Display Rate	120FPS@2MP 54FPS@3MP 120FPS@4MP (half) 80FPS@5MP (half)	240FPS@2MP 108FPS@3MP 240FPS@4MP (half) 160FPS@5MP (half)	480FPS@2MP 216FPS@3MP (half) 480FPS@4MP (half) 320FPS@5MP (half)	480FPS/400FPS	
	Display Resolution	1920x1080 (HD Display, VGA) Dual Display (Mirroring)			4K/1080p/720p/VGA, Dual Display (Mirroring)	
	Display Mode	1, 4	1, 4, 6, 8, 9	1, 4, 6, 8, 9, 16		
	Sequence	Programmable Sequence				
	Digital Zoom	Yes				
	Covert Cameras	Yes				
	Camera Color Control	Yes (Contrast, Color, Tint, Brightness)				
	PTZ Camera	Yes				

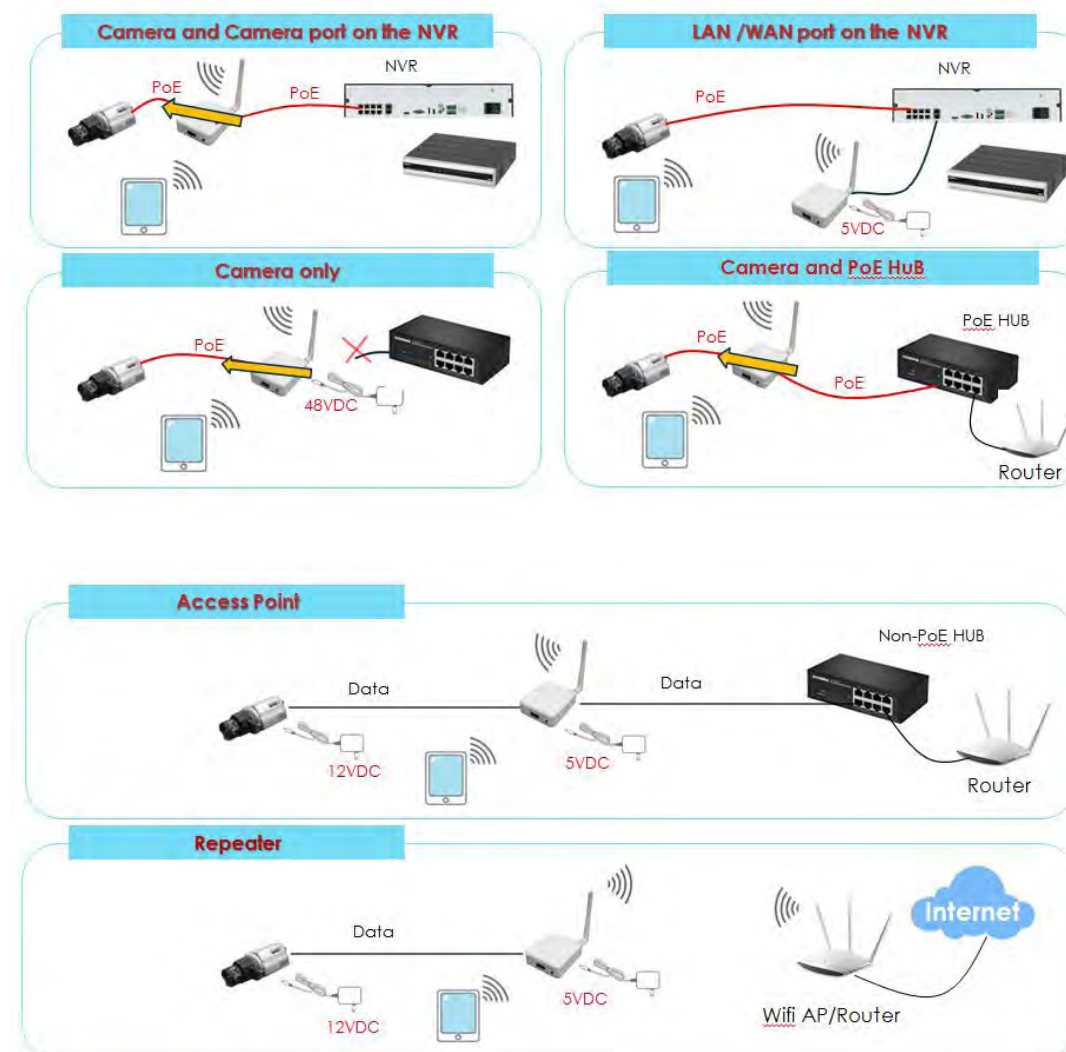


Modell		HYBRID RECORDER				
		DR-4M51-A-V	DR-8M52-A-V	DR-16M52-A-V	DR-16M55-RA	
Record	Schedule Method	Daily / Weekly / Each Hour				
	Programmable for Ch	Yes				
	Manual Recording	Yes				
	Post-Event Recording	5 / 10 / 15 / 20 / 30 / 60 / 180 SEC				
	Event Recording	Yes				
	Pre-Event Recording	0 / 1 / 2 / 3 / 4 / 5 / 10 / 15 SEC				
	Panic Recording	Yes				
	Event Logging	Yes (Motion, Alarm, Panic, Vloss)				
	System Logging	Yes (System On/Off, Time Changed, HDD / E-Mail Operations, System Operations)				
	Setup Logging	Yes (Setup Changed)				
Search & Playback	Remote Logging	Yes (User, IP Address, Remote Operations)				
	Playback RATE	Same as Recording Rate				
	Playback SPEED	x1, x2, x4, x8, x16, x32, x64				
Archiving	Search TYPE	Calender / Event/ Time / Thumbnail				
	Archiving Devices	USB Memory, FTP				
	Remote Archiving	Yes (WEB RA, VMS, FTP)				
	Snapshot Archiving	Yes				
	Data Reserving	Yes				
	Reserved Data List Management	Yes				
	Backup Data Format	AVI, RAW				
	Watermark	Yes				
	Watermark Verification	Yes				
Network	Archived Data Playback	Yes				
	Max. Connections	32 Users				
	DHCP	Yes				
	DDNS	Yes				
	Transmission Rate	Max 120 FPS	Max 240 FPS	Max 480 FPS		
	Bandwidth Control	Yes				
	Web Browser Access	Yes				
	Remote Function	Remote Monitoring / Playback / Archiving / Setup / PTZ Control. / Health Check				
	VMS Support	Yes				
	Two-Way Audio	Yes				
	PC Based Remote Agent	Yes				
	Smartphone Application	Yes (iOS, Android)				
	Web Based Remote Agent	Yes (Windows®, LINUX®, MAC OS/X®, ETC.)				
	SDK	Yes (HTTP, RTSP Protocol Base)				
	Event	Auto Router Port Forwarding	Yes			
Dual Streaming		Yes				
FTP Client		Yes (For Archiving)				
E-Mail		Yes (SMTP Client)				
Authority Control		ADMIN / MANAGER / USER				
Protocols		RTP, RTSP, RTCP, SMTP, NTP, HTTP, FTP, DDNS, DHCP, UPnP (Router Port Forwarding)				
Type		Video Loss Event / Event Notification / Event Pop-Up / Motion Detection / Motion Sensor Area				
ETC		Language	Multi-Language			
		Operating System	LINUX®			
		DST Setup	Yes			
	HDD Temperature Check	Yes (Dpends on HDD Specifcatons)				
	HDD S.M.A.R.T Check	Yes				
	Auto HDD Recovery	Yes				
	Setup Iport / Eexport	Yes				
PTZ Control	Yes (Pan / Tilt / Zoom / Focus / Iris / Preset)					



	WIRELESS SERVICE EQUIPMENT
	ZW-N22F
Network	2x RJ-45 PoE
WLAN	IEEE802.11b/g/n AP / Repeater / Client mode
USB	1
Security	WEP / WPA-PSK / WPA2-PSK
Operating Voltage	48VDC / Micro USB 5V in
Operating Temperature	0°C - 50°C
Accessories	Power Supply / Antenna
Dimensions (WxHxD)	75 x 75 x 33mm

Examples:





	MONITORS			
	LME17E-III	LME19-III	LME23.6SP-2	LME32
Video Norm	PAL / NTSC			
Screen Size	17"	19"	23.6"	32"
Resolution	1280 x 1024			
Aspect Ratio	4:3			
Displayable Colors	16,7 Million			
Response Time	5 ms			8.5 ms
Angle of View (L/R)	170° / 160°		80° / 85°	88° / 88°
Luminosity	250 cd/m²	300 cd/m²	300 cd/m²	400 cd/m²
Contrast Range	1000 : 1		5000 : 1	
Video Input	1x BNC, VGA, HDMI		2x BNC, VGA, HDMI	2x HDMI, BNC, VGA
Video Output	1x BNC		2x BNC	BNC
Audio Input	PC Stereo, RCA			
Audio Output	-			
Speaker	2x 2 Watt			
OSD Menu	English, German, French, Italien, Spanish, Russian, Turkish, Japanese, Polish			
3D Comb Filter	Yes			
De-Interlace	Yes			
PIP / POP	Yes / Yes			
VESA Connection	75 mm x 75 mm			200mm x 100mm / 200mm x 200mm
Operating Voltage	12 VDC (Power Supply 230V)			AC 100-240V 50/60HZ
Power Consumption	22 Watt	25 Watt	33 Watt	70 Watt
Operating Temperature	-10°C - 50°C			
Weight	2.7 kg	3.1 kg	3.2 kg	12.1 kg



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