

# Total Security Solution





# High-reliability security equipment for life safety in a networked world, designed and made by **EMSTONE**

EMSTONE develops and manufactures world-class video security equipment that is convenient and reliable. We are doing our best for a safer world based on the technology and experience accumulated over many years. We want to play the role of one HUB by converging various security solutions that are increasing with the development of technology.



www.emstone.com

## **Competitive Strength of EMSTONE Product**



## PC Type Monitoring Solution based on LINUX

Linux-based applications can monitor, search and store up to 1024CH. Effective resource control ensures the stability of the operating system.



## Interworking with 3rd Party Solution

It supports video-based system integration through interworking with various 3rd party (LPR, Fire, Al, Emergency bell, Elevator, etc) systems. And API Provided for 3rd party.



## High resolution image display

Ultra-high resolution of IP Cameras, images, videos, real-time monitoring of servers are possible without physical limitations



## **User-friendly GUI**

Intuitive and easy-to-understand interface configurations such as calendar/time search capabilities and easy event settings make it easier for users to access.

## **Field of Business**

City Surveillance



Facility

Power Plant, Factory

**Transportation facilities** 





Education facilities

Hospital



Hotel



**Department Store** 



**REDBACK VMS** is a VMS solution optimized for integrated video control that can store and distribute up to 1024 channels of video on a single server.

## Point of view

The future VMS market requires not only the operation of the control center but also the role of the HUB.





Acts as a pathway to quickly and conveniently connect the ever-growing 3rd-party solutions

02

Space efficiency of the control center needs to be improved due to the increase of physical servers.

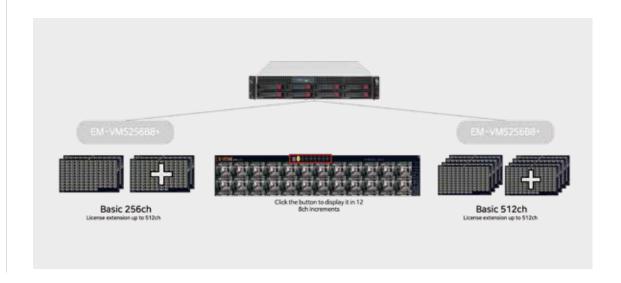






2,600 channel image of server racks built on site.

## Product Line-up



## **Feature**









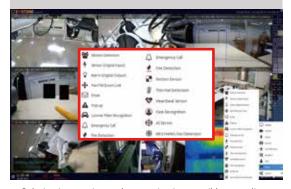
## Main Function

## The largest number of camera protocols from various manufacturers



- ▶ ONVIF / RTSP standard protocol default application
- ▶ Audio, motion, sensor input/output linkage by various manufacturers

#### Various solutions can be linked



► Solution integration and customization possible according to business purpose

## User management through fingerprint recognition mouse



► Biometrics function to restrict access of unregistered people and prevent password leakage



▶ Quick search by date/hour/minute



▶ Search by event situation



► Real-time live monitoring function for interlocked event occurrence

**EMSTONE NVR** Series is a recording device that can accommodate various channels and supports high-definition image processing based on integrated software. It supports video-based system integration through interworking with various 3rd party systems.

## **Product** Information

## LINUX-based PC NVR integrated monitoring solution



- ▶ Highly reliable 64-bit Linux-based NVR
- ► Support all resolutions including 12M / 8M / 5M / 2M / 1.3M
- ► ONVIF/RTSP standard protocol support
- ▶ Events such as motion / sensor / camera signal loss / disk error
- ▶ User authentication support using biometric information
- ► Two-way voice function support



- ▶ High-efficiency H.265 / H.264 compression method for clear image quality.
- ▶ Various recording modes such as motion detection / event / schedule
- ▶ Multi-user mode and screen lock support
- ► Support Failover system
- ► Model lineup: 4, 9, 16, 25, 36, 49, 64, 81, 100, 128, 64+, 128+ CH

## Main **Function**



▶ Quick search by date/hour/minute

and prevent password leakage

▶ Search by event situation



occurrence

# Various solutions can be linked

## Solution integration and customization possible according to business purpose

- Motion Detection
- A Pop-up
- Section Sensor
- Al Server

- Sensor (Digital Input)
- License Plate Recognition
- Thermal Detection
- **Elevator**

- Alarm (Digital Output)
- Emergency Call
- \* Heartbeat Sensor
- Measuring Machine

- Pan/Tilt/Zoom Link
- **6** Fire Detection
- Face Recognition
- E-mail

## Al Camera Integration



We provide an intelligent integrated control solution that detects people, objects through intelligent camera image analysis, and applies an event based on the analysis result to respond immediately.

## Al Box, Al Server Integration



Even for cameras that do not support AI, intelligent video analysis is provided for the corresponding channel video through the interworking of AI BOX and AI SERVER, and an integrated solution is provided through event linkage.

## **Emergency Call Integration**



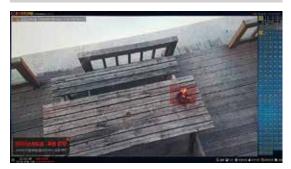
It is a solution that can be promptly delivered and responded to emergency call system through E-Map video pop-up and warning sound in case of emergency.

## **Elevator CRT Integration**



Integration with the elevator CRT system enables operating inform ation of the elevator to be displayed and saved on the screen, and by supporting search of the operating information of the elevator, the solution improves convenience by reducing the search time and provides accurate video analysis by displaying the intuitive operation information of live / search videos.

#### Flame / Smoke Detection



This solution detects flame and smoke by analyzing camera images in real time. A wide range of surveillance is possible, and users can quickly check whether there is a fire and respond to it through video in real time.

#### Thermal imaging Camera Integration



integrates with Various thermal imaging cameras. NVR,CMS and IPWALL systems, as well as external devices like control centers, EV charging stations, and warning lights. This ensures proactive fire prevention and an immediate, initial response to any fire incident.

# REDBACKA

Anyone can easily set it up, boasting high recognition and analysis rates based on Deep learning.

It provides selective monitoring of important data through object classification and pose analysis.

It delivers preemptive alerts, critical notifications,

and effective monitoring through highly reliable event analysis.

It provides the latest AI data through continuous firmware updates.

This Al video analytics solution is compatible with all existing cameras.

It supports analysis from multiple cameras on a single server and allows flexible server expansion.

It integrates with VMS, NVR, CMS, IPWALL, and third-party product lines.



Ai-SERVER-mini



## Ai-SERVER-Slim

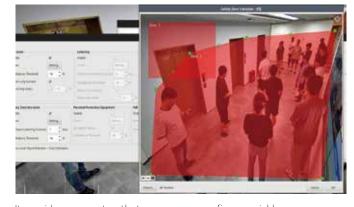
## Al Deep Learning Analysis



Using Al deep learning-trained data for analysis, it classifies objects, analyzes poses, and provides events and monitoring tailored to defined functions such as intrusion, loitering, fight, and falls.

## AI SEILVEIL SIIIII

## Easy Setup



It provides easy setup that anyone can configure quickly. Users simply select the event algorithm to use, enter the event notification criteria, and choose the area to analyze.

















Supports over 130 manufacturers Camera protocols & All Extisting IP Cameras

## Ai-Analysis Algorithm Function

## **Safety Zone Intrusion**



It estimates the POSE to determine foot position and triggers events only for people entering the zone. Unlike general motion or intrusion detection, the algorithm identifies people and can distinguish between those who are facing the zone and those who have not physically entered it.

#### **Fight**



By estimating poses, it detects fighting and assault to trigger events. This enables rapid monitoring of abnormal behavior in high-risk areas and schools, facilitating swift response.

## **Personal Protective Equipment**



It detects safety helmet compliance and triggers events upon non-compliance. This enhances safety regulation adherence and prevents potential accidents in critical industrial environments.

#### Fall



Detects falls by estimating posture (POSE) and triggers events. This aids rapid response by quickly monitoring abnormal behavior in security applications and specific facilities.

## Intrusion / Loitering



Detects intrusion or loitering through object detection and classification, triggering events. By preemptively detecting loitering behavior before intrusion, it enables proactive warning notifications and the application of preemptive control measures.

## Queueing



Queue detection monitors the number of people waiting in a designated area. It triggers an event when the queue length exceeds a set threshold. This is utilized for crowd management and detecting abnormal conditions.

#### **Crowd Counting**



The system uses algorithms to count the number of people in a specific area and analyze crowd density. This is utilized to prevent safety incidents and optimize crowd control at large events and facilities.

## **People Counting**



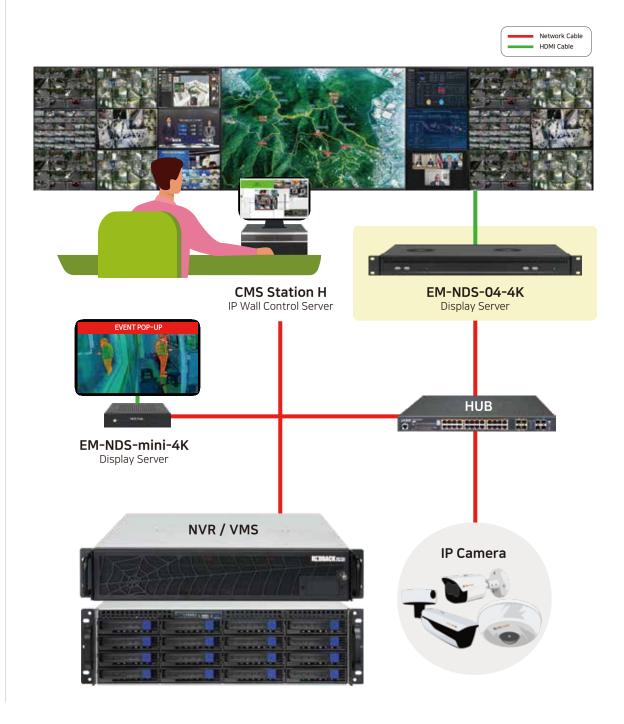
The people counting algorithm analyzes the direction of movement of objects within a designated area. It analyzes the number of people entering and exiting the zone to optimize facility operations and manage congestion levels.

**Smart IP Wall System** is a solution that can be applied to all sites requiring integrated CCTV control.

Differences from other systems

Unlike other heavy server-type IP wall solutions, it is operated only with a light PC-based display server, so the configuration is simple, scalable, and has high stability

## **Diagram**



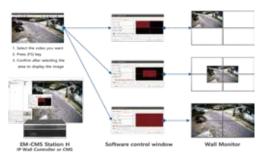
## **Feature**

## Simple and intuitive user interface

It supports IP Video Wall Control UI which can control set monitor layout and video preset with one click and reflect and display the currently displayed video in real time.



You can check the image to be displayed on the wall monitor with your own eyes, and anyone can easily operate it with a simple and intuitive configuration to display the desired image on the wall monitors.



#### Same performance support for scaling

Unlike the existing video wall system, which does not support expansion when adding a wall monitor or degrades after expansion, the system can be expanded by adding a display server and supports the same performance.



#### Support for multi-user and per-user permission settings

Multiple users can control the video wall at multiple control points, and each user can set the rights for wall monitor control and video control



## Search the video by displaying the search box on the wall monitor

Unlike the existing video wall system that can only display real-time video or encoded video, video search is possible by displaying the search box linked to the recording device on the wall monitor.



IP Video Wall Event Integration Screen

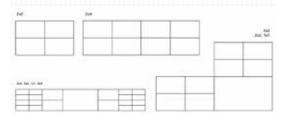
#### Event display function of NVR and linked system

When events occur in the NVR and the linked system, the wall monitor supports interlocking functions such as video popup, event message, image popup, and videowall preset operation.



## Free monitor layout configuration

In addition to the regular horizontal and vertical arrays, both monitor combinations and atypical monitor arrays of different sizes are supported.



#### Video wall DID monitor control

You can power on/off the video wall DID monitor with one button, and control the brightness and connection method.



## Main Product Line-up

Video Management System

**Central Monitoring System** 

REDBACK VMS Performance Series

CMS Station H





1U B2

2UB8-E

3UB16-E

4UB24-E









Smart IP Wall

■ EM-NDS-mini-4K

EM-NDS-04-4K





Ai Analysis Server

Ai-SERVER-mini

Ai-SERVER-Slim





## The largest number of camera protocols from various manufacturers



- ▶ ONVIF / RTSP standard protocol default application
- ▶ Audio, motion, sensor input/output linkage by various manufacturers





**Panasonic** 



SONY







Honeywell



JVC





SQU)





Video Management System



## Performance Series

# **REDBACK VMS**



## Specification -

Model		EM-VMS256B8+	EM-VMS512B8+			
	IP Camera	256CH	512CH			
Video Input	Max. License	up to 512CH	up to 1024CH			
CPU		Intel i7(12Cores, up to 4.7GHz)				
RAM		DDPS 32GB	DDR5 64GB			
			0010 0400			
SSD		mSATA SSD 120GB(OS, VMS)				
Display	Monitor output	2 x HDMI (4K60Hz)				
	Split screen	(1/2/4/6/7/9/10/13/16/25/36/49/64/81/100/128)				
Performance	Live/Play	FHD 64 channel simultaneous live/ play (Max 32Mp support for 1 camera)				
	Storage	Storage/Transmission of 128 FHD channels per HDD				
	Interface	2.5GbE 2ports and 10GbSFP+ 1port	2.5GbE 2ports and 10GbSFP+ 2port			
	Bandwidth	15Gbps	25Gbps			
Network	Simultaneous Access	1024(within network bandwidth)				
	Protocol	TCP/IP,UDP,DNS,DDNS,HTTP,NTP,RTP/RTCP,RTSP				
	Bandwidth Control	Auto, Manual				
	Mode	Continuous, Schedule, Event linkage				
Recording	Performance	Max CH x 4Mbps (up to Network Bandwidth of Storage System), CIF~32MP				
	Compression	H.265 / H.264 / MJPEG / MPEG4				
Sansah /	Search Mode	Date / Time Calendar Search, Channel Bundle Search, Event Search				
Search/ Play	Play-Back Control	Forward / Reverse Playback (High Speed: x1 ~ x32, Low Speed: 1/4 ~ 1/2), Before / After Staff				
	Resolution	CF~32M				
IP Camera	Protocol	Supported ONVIF / RTSP and Axis / Sony / Panasonic / Hanwha / Truen / Dahua / HIKVISION etc. over 130+				
Operating System		Linux 64bit(Embedded)				
	Default	N/A				
	Available	Up to 8ea SATA type 3.5" HDDs (24TB HDD - Max 192TB, Surveillance / Enterprise Level)				
Starrag	RAID(option)	Support for external RAID 0/1/5/6/50/60 for EM-JBOD24B connections (up to 2ea) (Enterprise Level HDD only, up to 1,152TB)				
Storage	Non-RAID (option)	HBA for EM-JBCC24B connections (up to 2ea) (Surveillance / Enterprise Level, Ma	ax 24TB x 24Bay x 2EA = 1,152TB)			
	SAN (FC,option)	HBA for SAN Storage connections (4G/8G/16G Single/Dual)				
	ISCSI (IP SAN)	Supported				
Back-up	Mode	Video (Multiple Channels, Time / Event Subtitle, Encryption), Still Image (Partial Mosaic supported)				
	File Format	MP4, JPG				
Event	Type	Motion Detection, Sensor, Relay, Disk Failure, Camera Signal Loss / Recovery, Em Detection, Thermal Event, Intelligent Server Integration	nergency Call, LPR, POS, Elevator, Flame / Smoke Detection, Abnormal Sound			
	Action	Recording, Alarm, Camera pop-up, Warning message, Warning sound, E-mail, FTP, Preset				
	PC	Live, Search, Backup, Event Manager, E-Map, Multi-monitors, Pan/Tilt/Zoom Con	trol, NVR Setting			
Application	Web	Live, Pan / Tilt / Zoom for all channels				
	Mobile	IOS / Android Apps				
Security		Multi User Level, Biometric Authentication				
Failover		Supported				
Data/Time Synchronia	ration	NTP timeserver, own NTP server function, self synchronization via GPS(option)				
	Built-in SW	EMSTONE video analysis Al-based flame/smoke detection 1 channel( ◆ Additional	License Options)			
Intelligent Solution	External	E/L CRT system, EM-call system, LPR Camera, Flame/Smoke Detect system, Password management solution, Video export secu	rity system			
	Interworking Analysis Server	EMSTONE-AI, Intellivix, NEXREAL, IVS, HanwhaVision, Truen, ITX, CHAJA, Neotec	h			
Operating Temp / Hu	midity	5 C-40 C / 0%~90%				
Power Supply / Curre	nt	SMPS 500W (input from AC100~240V 50/60Hz)				
Product Dimension (V	V x H x D) / Weight	430.4(W) X 88.4(H) X 480(D)mm / 12kg (without HDD)				
Packing Dimension(W	/xHxD)/Weight	570(W) X 175(H) X 710(D)mm / 15.5kg (without HDD)				



## Performance Series

# **1UB2**



## **Specification**

Model		EM-04B2	EM-09B2	EM-16B2	EM-25B2	
Video input	IP Camera	4CH	9CH	16CH	25CH	
CPU		Dual Core 1.0GHz of	r Higher			
RAM		DDR4 4GB DDR4 16GB				
	Monitor output	1xHDMI / 1xVGA				
	Split screen	1/2/4	1/2/4/6/7/9	1/2/4/6/7/9/10/13/16	1/2/4/6/7/9/10/13/16/25	
Display	Performance (CH/fps)	12M(1CH/15fps) 8M(1CH/30fps) 5M(2CH/60fps) 1080P(4CH/120fps)	12M(1CH/30fps) 8M(2CH/60fps) 5M(4CH/120fps) 1080P(9CH/270fps)	12M(2CH/60fps) 8M(4CH/120fps) 5M(6CH/180fps) 1080P(16CH/480fps)	12M(3CH/90fps) 8M(4CH/120fps) 5M(6CH/240fps) 1080P(25CH/750fps)	
	Mode	Continuous, Schedu	ule, Event linkage			
Recording	Performance	Max. 500Mbps / CIF	~12MP			
	Compression	H.265 / H.264 / MP	EG4 / MJPEG			
0	Search Mode	Date / Time Calend	ar Search, Channel Bundle	Search, Event Search		
Search/Play	Play-Back Control	Play forward / back	ward (fast:x1~x32, slow:1/	4~1/2), Step forward / bac	kward	
10.0	Resolution	CIF~12M				
IP Camera	Protocol	Supported IP Camera and ONVIF / RTSP				
Operating Syste	em	Linux 64bit(Embedded) / mSATA SSD 16GB(OS, NVR SW DISC)				
Default		None				
Ctorono	Available	Up to 2ea 3.5" HDD can be installed (20TB HDD, available, up to 40TB capacity)				
Storage	RAID/External	Not Supported				
	Hot Swap	Hot Plug Supported				
Dools	Backup Mode	Video(multiple back up, da	te/time/event information display, en	cryption function support), still image(	partial mosaic support)	
Back-up	File Format	MP4, JPG				
	PC	Live, Search, Backup,	Event Manager, E-Map, Multi-	-Monitor, PAN / TILT / ZOOM Co	ontrol, NVR Setting	
Application	Web	All Channel Live, PAN/TILT/ZOOM Control				
	Smart Phone	Provide iPhone / An	droid APP			
	Interface	10/100/1000 Base-Tx Ethernet (RJ45) - 1ea				
Network	Maximum User	1024 (within network	k bandwidth)			
	Protocol	TCP/IP, UDP, DNS,	DDNS, HTTP, NTP, RTP/F	RTCP, RTSP		
Operating temper	erature / humidity	5°C~40°C / 0%~90%				
Power / Power	Consumption	DC12V 5A Adapter (AC100 ~ 240V 50/60Hz)				
Dimension (W >	(H x D)	430.0(W) X 44.5(H) X 249.5(D)mm				
Weight		3.66Kg(without HDD)				



## Performance Series

# **2UB8-E**



## Specification

		EM-16B8-E				EM-128B8-E			
Video Input	IP Camera	16CH	25CH	36CH	64CH	128CH			
CPU	-	intel Celeron(5Cores, up	to 1.1GHz)	intel i5(12Cores, up to	4.4GHz)	'			
RAM		DDR5 16GB	DDR5 16GB DDR5 32GB						
SSD		mSATA SSD 16GB(OS, NVR)							
	Monitor output	2 x HDMI (4K60Hz)							
Display			[1724/957910] The second of th						
	Split screen					/81/100/128)			
Performance	Live/Play		FHD 16CH FHD 25CH FHD 36CH FHD 64 channel simultaneous live/ pilay (Max 32Mp support for 1 camera)						
	Storage		f 128 FHD channels per HDD						
	Interface	2.5GbE 2ports							
	Bandwidth	5Gbps							
Network	Simultaneous Access	1024(within network bandwi							
	Protocol	TCP/IP,UOP,DNS,DONS,HT	TP,NTP,RTP/RTCP,RTSP						
	Bandwidth Control	Auto, Manual							
	Mode	Continuous, Schedule, I							
Recording	Performance		Network Bandwidth of Storag	e System), CIF~32MP					
	Compression	H.265 / H.264 / MJPEG							
Search/	Search Mode	Date / Time Calendar S	earch, Channel Bundle Search	, Event Search					
Play	Play-Back Control	Forward / Reverse Playback (High Speed: x1 - x32, Low Speed: 1/4 - 1/2), Before / After Staff							
IP Camera	Resolution	CIF~32M	CIF~32M						
ir Camera	Protocol	Supported ONVIF / RTSP an	d Axis / Sony / Panasonic / Hanwh	a / Truen / Dahua / HIKVISION etc.	over 130+				
Operating System	1	Linux 64bit(Embedded)							
	Default	N/A							
	Available	Up to 8ea SATA type 3.5" HDDs (24TB HDD - Max 192TB, Surveillance / Emerprise Level)							
	RAID(option)	Support for external RAID 0/11/5r/t/50/60 for EM-JBCD24B connections (up to 2ea) (Enterprise Level HDD only, up to 1,1527B)							
Storage	Non-RAID (option)	HBA for EM-JBC024B connections (up to 2ea) (Surveillance / Enterprise Level, Max 24TB x 24Bay x 2EA = 1,152TB)							
	SAN (PC,option)	HBA for SAN Storage connections (4G/8G/16G Single/Dual)							
	ISCSI (IP SAN)	Supported							
	Mode	Video (Multiple Channels	s, Time / Event Subtitle, Encry	ption), Still Image (Partial Mos	saic supported)				
Back-up	File Format	MP4, JPG							
Eurot	Type	Motion Detection, Sensor, R Thermal Event, Intelligent Se	ielay, Disk Failure, Camera Signal L over Integration	oss / Recovery, Emergency Call, L	PR, POS, Elevator, Flame / Smoke I	Detection, Abnormal Sound Detection			
Event	Action	Recording, Alarm, Camera pop-up, Warning message, Warning sound, E-mail, FTP, Preset							
	PC			monitors, Pan/Tilt/Zoom Contr					
Application	Web	Live, Pan / Tilt / Zoom f			-				
	Mobile	iOS / Android Apps							
Security			ric Authentication						
Failover		Multi User Level, Biometric Authentication  Supported							
Data/Time Synch	ronization	NTP timeserver, own NTP server function, self synchronization via GPS(option)							
Dallas Tallio Oyliasi	Built-in SW				a)				
Intelligent	External	E/L CRT system, EM-call sy	EMSTONE video analysis Al-based filame/smoke detection 1 channel(+ Addisonal License Options)  E/L CRT system, EM-call system, LPR Camera, Plame/Smoke Detect system, Password management solution, Video export security system						
Solution	Interworking Analysis Server		REAL, IVS, HanwhaVision, Truen, I						
Operating Temp / He		5°C~40°C / 0%~90%							
Power Supply / Curn		SMPS 500W (input from AC	100-240V 50/60Hz)						
Product Dimension (W x		430.4(W) X 88.4(H) X 480(I							
Packing Dimension(W x H x D) / Weight		570(W) X 1750H) X 710(D)n							

## Performance Series

# 3UB16-E



## Specification -

Video Input	IP Camera	36CH	64CH	128CH			
CPU		intel i5(12Cores, up to 4.4GHz)					
RAM		DDR5 32GB					
SSD		mSATA SSD 16GB(OS, NVR)					
	Monitor output	2 x HDMI(4K60Hz)					
Display Split screen (1/2/4/67/9/03/13/16/25/06) (1/2/4/67/9/03/13/16/25/06/64)			(1/2/4/6/7/910/13/16/25/36/49/64)	(1/2/4/6/7/9/10/13/16/25/36/49/64/81/100/126)			
	Live/Play	FHD 36CH	FHD 64CH	· ·			
Performance	Storage	Storage/Transmission of 128 FHD channels	per HDD				
	Interface	RJ45 2,5GbE 2ports					
	Bandwidth	5Gbps					
Network	Simultaneous Access	1024(within network bandwidth)					
	Protocol	TCP/IP,UDP,DNS,DDNS,HTTP,NTP,RTP/RT	CP,RTSP				
	Bandwidth Control	Auto, Manual					
	Mode	Continuous, Schedule, Event linkage					
Recording	Performance	Max CH x 4Mbps (up to Network Bandwidth	of Storage System), CIF~32MP				
	Compression	H.265 / H.264 / MJPEG / MPEG4					
Search/	Search Mode	Date / Time Calendar Search, Channel Bund	lle Search, Event Search				
Play	Play-Back Control	Forward/Reverse Playback (High Speed: x1-	x32, Low Speed: 1/4~1/2), Before / After Staff				
	Resolution	CIF~32M					
IP Camera	Protocol	Supported ONVF / RTSP and Axis / Sony / Panason	ic / Harrwha / Truen / Dahua / HIKVISION etc., over 130+				
Operating System		Linux 64bit(Embedded)					
	Default	N/A					
	Available	Up to 16ea SATA type 3.5" HDDs (24TB HDD = Max 384TB, Surveillance / Enterprise Level)					
	RAID(option)	Support for external RAID 0/1/5/6/50/60 for (IM-UBC004B connections (up to 2xs) (Enterprise Level HCD only, up to 1,1927B)					
Storage	Non-RAID (option)	HBA for ENIV-JB0024B connections (up to 2ea) (Surveillance / Enterprise Level, Max 24/8x x 256 × 1,152/18)					
	SAN (FC,option)	HBA for SAN Storage connections (4G/8G/16G Single/Dual)					
	ISCSI (IP SAN)	Supported					
	Mode	Video (Multiple Channels, Time / Event Subti	tie, Encryption), Still Image (Partial Mosaic supports	od)			
Back-up	File Format	MP4, JPG					
	Type	Motion Detection, Sensor, Relay, Disk Failure, Cam- Thermal Event, Intelligent Server Integration	era Signal Loss / Recovery, Emergency Call, LPR, POS, Elev	ator, Flame / Smoke Detection, Abnormal Sound Detection,			
Event	Action		message. Warning sound. E-mail. FTP. Preset				
	PC		lecording, Alarm, Camera pop-up, Warning message, Warning sound, E-mail, FTP, Preset  ive, Search, Backup, Event Manager, E-Map, Multi-monitors, Pan/Tilt/Zoom Control, NVR Setting				
Application	Web	Live, Pan / Tilt / Zoom for all channels					
	Mobile	iOS / Android Apps					
Security		Multi User Level, Biometric Authentication					
Failover		Supported					
Data/Time Synchroniz	ation	NTP timeserver, own NTP server function, self synchronization via GPS(option)					
	Built-in SW	EMSTONE video analysis Al-based flame/smoke de					
Intelligent Solution	External	E/L CRT system, EM-call system, LPR Camera, Flame/Smoke Detect system, Password managem	ent solution, Video export security system				
	Interworking Analysis Server	EMSTONE-AI, Intellivix, NEXREAL, IVS, HarwhaVisio	n, Truen, ITX, CHAJA, Neotech				
Operating Temp / Hun	nidity	5°C~40°C / 0%~90%					
Power Supply / Curren	t	SMPS 500W ( input from AC100 ~ 240V 50/	60Hz )				
Product Dimension (W x H	(x D) / Weight	430.4(W) X 133.4(H) X 550(D)mm /14.6kg (	without HDD)				
Packing Dimension(W x H	x D) / Weight	570(W) X 225(H) X 765(D)mm /20.3kg (with	out HDD)	570(W) X 225(H) X 765(D)mm /20.3kg (without HDD)			

## Performance Series

# 4UB24-E



## Specification -

			EM-64B24V2	EM-128B24V2			
Video Input	IP Camera	36CH	64CH	128CH			
CPU		intel i5(12Cores, up to 4.4GHz)					
RAM		DDR5 32GB					
SSD		mSATA SSD 16GB(OS, NVR)					
	Monitor output	2 x HDMI(4K60Hz)					
Display	Split screen	(1/2/4)6/7/9/10/13/16/25/36)	(1/2/4/6/7/9/10/13/16/25/36) (1/2/4/6/7/910/13/16/25/36/40/64) (1/2/4/6/7/9/10/13/16/25/36/40/64/91/10/13/16/25/36/40/64/91/9/10/25/96/40/9/9/9/9/9/9/9/9/9/9/9/9/9/9/9/9/9/9/				
	Live/Play	FHD 36CH	FHD 64CH				
Performance	Storage	Storage/Transmission of 128 FHD channels	Storage/Transmission of 128 FHD channels per HDD				
	Interface	RJ45 2.5GbE 2ports					
	Bandwidth	5Gbps					
Network	Simultaneous Access	1024(within network bandwidth)					
	Protocol	TCP/IP,UDP,DNS,DDNS,HTTP,NTP,RTP/RT	CP,RTSP				
	Bandwidth Control	Auto, Manual					
	Mode	Continuous, Schedule, Event linkage					
Recording	Performance	Max CH x 4Mbps (up to Network Bandwidth	of Storage System), CIF~32MP				
	Compression	H.265 / H.264 / MJPEG / MPEG4					
Count /	Search Mode	Date / Time Calendar Search, Channel Bund	die Search, Event Search				
Search/ Play	Play-Back Control	Forward/Reverse Playback (High Speed: x1-	-x32, Low Speed: 1/4~1/2), Before / After Staff				
	Resolution	CIF~32M					
IP Camera	Protocol		nic / Hanwha / Truen / Dahua / HIKVISION etc., over 130+				
운영체제		Linux 64bit(Embedded)					
2011	Default	N/A					
	Available						
	RAID(option)	Up to 24ea SATA type 3.5" HDDs (24TB HDD - Max 576TB, Surveillance / Enterprise Level)					
Storage	Non-RAID (option)	Support for external RAID 0/1/5/6/150/RD for EM-JB00248 connections (up to 2ea) (Exterprise Level HDD only, up to 1,1527B)  HBA for EM-JB00248 connections (up to 2ea) (Surveillance / Enterprise Level, Max 247B x 245bx x 25A = 1,1527B)					
	SAN (FC.option)	HBA for SAN Storage connections (4G/8G/1					
	ISCSI (IP SAN)	Supported					
	Mode		itle, Encryption), Still Image (Partial Mosaic suppor	ted)			
Back-up	File Format	MP4, JPG					
	Туре		era Signal Loss / Recovery, Emergency Call, LPR, POS, Eli	evator, Flame / Smoke Detection, Abnormal Sound			
Event	Action	Recording, Alarm, Camera pop-up, Warning message, Warning sound, E-mail, FTP, Preset					
	PC		ap, Multi-monitors, Pan/Tilt/Zoom Control, NVR Se	etting			
Application	Web	Live, Pan / Tilt / Zoom for all channels		-			
	Mobile	iOS / Android Apps					
Security		Multi User Level, Biometric Authentication					
Failover		Supported					
Data/Time Synchroniz	ration	NTP timeserver, own NTP server function, self synchronization via GPS(option)					
		EMSTONE video analysis Al-based flame/smoke di	etection 1 channel(  Additional License Options)				
Intelligent Solution	External	E/L CRT system, EM-call system, LPR Camera, Flame/Smoke Detect system, Password manager	ent solution, Video export security system				
	Interworking Analysis Server	EMSTONE-AI, Intellivix, NEXREAL, IVS, HarwhoVisi	on, Truen, ITX, CHAJA, Neotech				
Operating Temp / Hur	midity	5°C~40°C / 0%~90%					
Power Supply / Currer	nt	SMPS 1200W ( input from AC100 ~ 240V 5	0/60Hz )				
Product Dimension (W x )	H x D) / Weight	430.4(W) X 175.4(H) X 550(D)mm /17.5kg (HDD without)					
Packing Dimension(W x H	1 x D) / Weight	570(W) X 270(H) X 765(D)mm /23.3kg (HD	D without)				

Smart IP Wall



## Network Display Server

# NDS-mini-4K



## Specification

Model		EM-NDS-mini-4K	
	Output	1 of HDMI	
Monitor	Output Performance	Full-HD Monitor Display - up to 1ea(60Hz) Ultra HD Monitor Display - up to 1ea(60Hz)	
Video output	Full-HD Monitor	D1(720x480): 1,920fps HD(1280x720): 960fps Full HD(1920x1080): 480fps Ultra HD(3840x2160): 120fps	
Performance	Ultra HD Monitor	D1(720x480): 1,920fps HD(1280x720): 960fps Full HD(1920x1080): 480fps Ultra HD(3840x2160): 120fps	
Operating System		Linux 64bit (Embedded)	
CPU		Dual Core 1.8GHz or Higher	
RAM		DDR4 16G RAM	
VGA		Integrated Graphic	
Disk		SSD mSATA 16G	
Notice	Interface	2ea of 1/2.5Gbps Ethernet (RJ45)	
Network	Bandwidth Control	Auto	
Operating Temp / H	Humidity	0°C~40°C / 0%~90%	
Power Supply / Cur	rent	DC12V 5A	
Dimension (W x H x	( D)	185.0(W) x 45.0(H) x 197.5(D) mm	
Weight		Approx. 1.04Kg (without VESA Mount)	

Smart IP Wall

## Network Display Server

# NDS-04-4K



## Specification

Model		EM-NDS-04-4K	
	Output	4 of HDMI ports	
Monitor	Output Performance	Full-HD Monitor Display - up to 4ea Ultra HD Monitor Display - up to 4ea	
Video output	Full-HD Monitor	D1(720x480): 4 x 1,920fps HD(1280x720): 4 x 960fps Full HD(1920x1080): 4 x 480fps Ultra HD(3840x2160): 4 x 120fps	
Performance	Ultra HD Monitor	D1(720x480): 4 x 1,920fps HD(1280x720): 4 x 960fps Full HD(1920x1080): 4 x 480fps Ultra HD(3840x2160): 4 x 120fps	
Operating System		Linux 64bit (Embedded)	
CPU		2ea Quad Core 2.4GHz or Higher	
RAM		DDR4 32G RAM	
VGA		Integrated Graphic(Intel® Iris® Xº Graphic)	
Disk		M.2 SSD 32G	
Naturali	Interface	4ea of 1/2.5Gbps Ethernet (RJ45)	
Network	Bandwidth Control	Auto	
Operating Temp	/ Humidity	0°C~40°C / 0%~90%	
Power Supply / C	urrent	2ea of DC12V 5A	
Dimension (W x H	H x D)	430.0(W) x 45.0(H) x 248.0(D) mm	
Weight		Approx. 2.98Kg	

\* The specification of this product may change without prior notice

Al Analysis Server

## **REDBACK AI**

## **AI-SERVER-mini**



Mode	l name	EM-Al04mini	EM-Al08mini	EM-Al16mini	EM-Al00mini	
Video	Default	4CH	8CH	16CH	0CH	
input	Max	Up to 4CH	Up to 8CH	Up to 16CH	Up to 16CH	
Inferenc	e Budget	20	20	24	24	
С	:PU		intel i5(1	4cores)		
G	iPU		Intel Arc	Graphics		
N	PU		Intel NPU3	(11TOPs)		
Total TOPs(C	PU+GPU+NPU)		Up to 3	34TOPs		
R	AM	DDR5	16GB	DDR5	32GB	
S	SD		M.2 SSD 128GB	(OS, Event DB)		
Display	Monitor output		1 x HDMI(8K60Hz) -	+ 1 x HDMI(4K60Hz)		
	Split screen	(1/2/4)	(1/2/4/6/9)	(1/2/4/6/10/13/16)	depend on CH	
Network Band	width / interface		5Gbps / RJ-45	5 2.5GbE 2port		
Bandwid	Ith Control	Auto, Manual				
Simultane	ous Access	1024 (Within network bandwidth)				
ID comoro	Resolution	CIF-32M				
IP camera protocol		ONVIF / RTSP and Axis / Sony / Panasonic / Hanwha / Truen / Dahua / HIKVISION etc. over 130+				
(	os	Linux 64bit (Embedded)				
Alarm event	type	Motion Detection, Sensor, Relay, Camera Signal Loss / Recovery				
Alami eveni	External	Emergency Call, POS, Thermal Event(Thermal, Sensor)				
	LPR		EMSTONE video analysis	s Al-based LPR (Option)		
Intelligent	Fire / Smoke	EMSTONE video analysis Al-based flame/smoke detection (Option)				
Event	Intelligent Part 1			analysis Al-based /people counting/crowdir anal protective Equipmen		
Ac	etion	Alarm, Camera pop-up, Warning message, Warning sound, E-mail, FTP, Preset, HTTPS API Support				
Sec	curity	Multi User Level, Biometric authentication support				
Data/Time S	ynchronization	NTP timeserver, own NTP server function, self synchronization via GPS(option)				
Operating Te	mp / Humidity		5℃~40℃	/ 0%~90%		
Power Sup	ply / Current		DC12V 10A (AC	100-240V input)		
Dimension	(W x H x D)	185(W) x 45(H)	x 197.5(D) mm / Appro	x. 1.14 kg (Vesa mount (	0.08kg Without)	
	ension (W x H x D)		350(W) x 76(H) x 235(E	)) mm / Approx. 1.95 kg		

Al Analysis Server

## **REDBACK AI**

## **AI-SERVER-Slim**



Mode	el name	EM-AI16S	EM-AI32S	EM-AI00S	
Video	Default	16CH	32CH	0CH	
input	Max	Up to 16CH	Up to 32CH	Up to 32CH	
Inference Budget			48		
C	PU		Dual intel i5 (14+14 cores)		
G	PU .		Dual Intel Arc Graphics		
١	IPU		Dual Intel NPU3 (22TOPs)		
Total TOPs(C	PU+GPU+NPU)		Up to 68TOPs		
R	RAM		DDR5 64GB		
S	SSD	Du	ual M.2 SSD 128GB (OS, Event D	B)	
Display	Monitor output	2 x	HDMI(8K60Hz) + 2 x HDMI(4K60	)Hz)	
	Split screen	(1/2/4/	(6/9/16)	depend on CH	
Network Band	width / interface		10Gbps / RJ-45 2.5GbE 4port		
Bandwid	dth Control	Auto, Manual			
Simultane	ous Access	1024 (Within network bandwidth)			
ID	Resolution	CIF-32M			
IP camera	protocol	ONVIF / RTSP and Axis / Sony / Panasonic / Hanwha / Truen / Dahua / HIKVISION etc. over 130+			
(	OS	Linux 64bit (Embedded)			
Alarm event	type	Motion Detection, Sensor, Relay, Camera Signal Loss / Recovery			
Alami eveni	External	Emergency Call, POS, Thermal Event(Thermal, Sensor)			
	LPR	EMSTONE video analysis Al-based LPR (Option)			
Intelligent	Fire / Smoke	EMSTONE video a	analysis Al-based flame/smoke	detection (Option)	
Event	Intelligent Part 1	Intrusion/Lo	MSTONE video analysis Al-base oitering/Queuing/people counting all/Fighting/Personal protective E	g/crowding,	
Ad	ction	Alarm, Camera pop-up, Warning message, Warning sound, E-mail, FTP, Preset, HTTPS API Support			
Se	curity	Multi User Level, Biometric authentication support			
Data/Time S	Synchronization	NTP timeserver, own N	ITP server function, self synchror	ization via GPS(option)	
Operating Te	emp / Humidity	5℃~40℃/0%~90%			
Power Sup	pply / Current	Du	al DC12V 10A (AC 100-240V inp	out)	
Dimension	n (W x H x D)	430(W)	x 45(H) x 248(D) mm / Approx.	3.18 kg	
	ension (W x H x D)	498(W)	x 115(H) x 351(D) mm / Approx	. 3.60 kg	

Smart IP Wall



## Central Monitoring Server

## **CMS Station H**



## **Specification**

Model		EM-CMS Station H	
CMS Version	Default	CMS Basic Version (8 Host)	
CMS version	Options	16/64/128/512/1024 Host	
Operating System		Ubuntu 22.04 with modified Linux Kernel, OpenGL and X-Windows	
CPU		Intel Dual Core 1.8Hz	
RAM		DDR4 16G RAM (8Gx2ea)	
VGA		Integrated Graphic (included 48 Execution Unit)	
Disk		M.2 SSD 128G	
	Monitor Output	2xHDMI(up to 4K 60Hz support)	
Display	Mode	Various display mode and full screen mode like 1x1, 1x2, 2x1, 2x2, 3x3	
	Performance	Full HD 32CH Decoding, Up to 8K(7680x4320) Decoding	
Search/Replay	Method	Date / Time Calendar Search, Individual / Channel Bundle Search, Event Search	
	Replay Control	Forward direction (high speed:x1~x32), Step forward / backward	
	Mode	Video, Still Image	
Backup	File Format	MP4, JPG, Encrypted Backup	
Video Wall		EMSTONE IP Video Wall System Setup / Control	
Event	Туре	Motion Detection, Sensor, Relay, Disk Failure, Camera Signal Loss / Recovery, Emergency Bell, License Plate Recognition, POS, Elevator CRT, Fire / Smoke Detection, Abnormal Sound Detection, Thermal Imaging Camera	
	Action	Alarm Digital-out, Pop-up Camera, Alarm Sound, Warning Message, Preset Control, IP Video Wall Control (Video / Image / Text Output Control, Preset)	
Naturali	Interface	1/2.5Gbps Ethernet (RJ45) -2ea	
Network	Bandwidth Control	Automatic, Manual	
Operating tempera	ture / humidity	5°C~40°C / 0%~90%	
Power / Power Co	onsumption	DC12V 5A	
Dimension (W x H	I x D)	224.0(W) X 88.8(H) X 200.0(D)mm	
Weight		Approx. 2.7Kg	



## **Specification** –

Model		EM-IQV(14W5Z)	EM-IQP(14W5Z)		
	Image Sensor	1/2.8" 5Megapixel progressive CMOS			
Camera	Electronic Shutter Speed	1 sec ~ 1/10,000sec(60/30 mode) 1 sec ~ 1/10,000sec(50/25mode)			
Calliela	Min. Illumination	0.05Lux (Color), 0.01Lux(B/W), 0 Lux (ligh	05Lux (Color), 0.01Lux(B/W), 0 Lux (light)		
	Illumination Distance	IR LED: 30 m Warm LED: 10m			
	Lens Type	Motorized Vari-focal			
Lens	Focal Length	2.7 ~ 13.5mm, F1.6 ~ F2.8			
	Field of View	103.4°(W) ~ 23.8°(T)			
	Pan/Tilt Radius	_	Pan: 360° (Endless) / Tilt: -40° ~ +45°		
DTZ	Pan/Tilt Speed	-	Pan: 0.1°~ 90°/sec / Tilt : 0.1° ~ 20°/sec		
PTZ	Preset	255			
	Group	8 Groups (Max. 16 presets)			
\	Video Compression	H.265 / H.264 / MJPEG			
Video	Video Frame Rate	Max. 30 fps for 5M/4M/1080P/720P/D1			
	Day/Night	Auto / Day / Night(ICR)			
Function	BLC/HLC/WDR	Yes			
Tunction	White Balance	Auto/Indoor/Outdoor/Manual			
	IVS	Motion Detection, Line Cross, Area Entrance, Area Exit, Appear/Disappear			
	Audio Compression	G.711 A-law, G.711 µ-law, 128kbps, sam	pling rate 8kHz		
Audio	Speaker / Mic	14W 6Ω Built-in Speaker , Built-in MIC (Fo	14W 6Ω Built-in Speaker , Built-in MIC (For TSM)		
	Function	TSM ( True Sound Monitoring )			
	Interface	RJ-45 ( 10/100 BASE-T )			
Network	Protocol	ONVIF(profile S), EMSTONE_P, IPv4, TCP/	IP, UDP, RTP, RTSP, RTMP, HTTP, HTTPS		
	User/Host	10			
	Power Supply	PoE+ / DC12V 2A	PoE+ / DC12V 3.5A		
Power	Operating Conditions	-30°C to +50°C /less than ≤ 95% RH			
	Protection	IP66, IK10			
Ctru otur-	Dimensions	190 mm × 233 mm × 125 mm	190 mm × 233 mm × 265 mm		
Structure	Net Weight	2.1kg	3.3kg		

# **DOME CAMERA**

EM-IQD(F21P)
EM-IQD(IR28P)



## **Specification** -

Model		EM-IQD(F21P)	EM-IQD(IR28P)	
	Image Sensor	1/2.7" 5Megapixel progressive CMOS		
	Max. Resoluition	2880 x 1620 pixel		
Camera	Electronic Shutter Speed	1/3 sec ~ 1/10,000sec		
Gamera	Min. Illumination	0.006Lux (Color), 0.01Lux(B/W)	0.006Lux(Color), 0.01Lux(B/W), 0 Lux (light)	
	Illumination Distance	-	More than 30M, Wave: 850nm	
	LED Type	_	IR LED, WARM LED	
	Lens Type	Fixed		
Lens	Focal Length	2.1mm, F2.1	2.8mm, F1.6	
	Field of View	H: 140° / V: 79°	H: 102° / V: 56°	
Video	Video Compression	H.265 / H.264 / MJPEG		
video	Video Frame Rate	Max. 30 fps for 5M/4M/1080P/720P/D1/CIF		
	Day/Night	Auto / Day / Night(ICR)		
F	BLC/HLC/WDR	Yes		
Function	White Balance	Auto / Manual		
	IVS	Motion detection, Video Shelter, Line Crossing, Area Intrusion, Region Entrance, Region Exiting, Fast Moving		
	Audio Compression	G.711 A-law, G.711 µ-law, 128kbps, sampling rate 8kHz		
Audio	Spearker / Mic	Built-in Mic	_	
	Function	Abnormal Sound Detection	_	
	Interface	RJ-45 ( 10/100 BASE-T )		
Network	Protocol	ONVIF(profile S), EMSTONE_P, IPv4, TCP/IP	, UDP, RTP, RTSP, RTMP, HTTP, HTTPS	
	User/Host	10		
	Power Supply	PoE (802.af) / DC12V (5W)	PoE (802.af) / DC12V (10W)	
Power	Operating Conditions	-30°C to +60°C		
	Protection	IP67, IK10		
Ctrusture	Dimensions	112 mm × 87.5 mm		
Structure	Net Weight	600g	497g	

\*\* The specification of this product may change without prior notice.

## **BULLET CAMERA**

# EM-IQV(IR28P) EM-IUV(IR2812ZP)





## **Specification** -

Model		EM-IQV(IR28P)	EM-IUV(IR2812ZP)
Camera	Image Sensor	1/2.7" 5Megapixel progressive CMOS	1/1.8" 8Megapixel progressive CMOS
	Max. Resoluition	2880 x 1620 pixel	3840 x 2160 pixel
	Electronic Shutter Speed	1/3 sec ~ 1/10,000sec	
	Min. Illumination	0.006Lux(Color), 0.01Lux(B/W), 0 Lux(light)	0.003Lux(Color), 0 Lux (light)
	Illumination Distance	More than 30M, Wave: 850nm	More than 70M, Wave: 850nm More than 50M, Warm LED
	LED Type	IR LED, WARM LED	IR LED, WARM LED
	Lens Type	Fixed	Motorized Vari-focal
Lens	Focal Length	2.8mm, F1.6	2.8 ~ 12mm, F1.2 ~ F2.15
	Field of View	H: 102° / V: 56°	H: 112° ~ 48° / V: 59° ~ 28°
	Video Compression	H.265 / H.264 / MJPEG	
Video	Video Frame Rate	Max. 30 fps fo 5M/4M/1080P/720P/D1/CIF	Max. 30 fps fo 8M/6M/5M/4M/1080P/720P/D1/CIF
	Day/Night	Auto / Day / Night(ICR)	
F	BLC/HLC/WDR	Yes	
Function	White Balance	Auto / Manual	
	IVS	Motion detection, Line Crossing, Area Intrusion, Region Entrance, Region Exiting, Fast Moving	
	Audio Compression	G.711 A-law, G.711 µ-law, 128kbps, sampling rate 8kHz	
Audio	Speaker / Mic	-	3W Built-in Speaker, Built-in MIC
	Function	_	Abnormal Sound Detection
	Interface	RJ-45 ( 10/100 BASE-T )	
Network	Protocol	ONVIF(profile S), EMSTONE_P, IPv4, TCP/IP, UDP, RTP, RTSP, RTMP, HTTP, HTTPS	
	User/Host	10	
	Power Supply	PoE (802.af) / DC12V (Max. 10W)	PoE (802.af) / DC12V (Max. 13W)
Power	Operating Conditions	-30°C to +60°C /less than ≤ 95% RH	
	Protection	IP67, IK10	IP67
011	Dimensions	Ф68 x 172.3mm	Ф93.5 x 278.9mm
Structure	Net Weight	490g	1000g

The specification of this product may change without prior notice

# Thermal CAMERA EM-IX(Q36P)

## **Specification** –

Model		EM-IX(Q36P)	
Camera	Image Sensor	1/2.8" 5Megapixel progressive CMOS	
	Max. Resoluition	2880 x 1620 pixel	
	Electronic Shutter Speed	1 sec ~ 1/10,000sec	
	Min. Illumination	0.01Lux(Color), 0 Lux(light)	
	Illumination Distance	More than 20M, Wave: 850nm	
	LED Type	IR LED, WARM LED, RED LED (Alarm or Event)	
	Detector Type	IR Array thermal sensor	
Thermal	Resolution	32 x 24 Pixel	
	Max Distance	Max. 10 Meter	
	Lens Type	Fixed	
Lens	Focal Length	2.8mm, F1.6	
	Field of View	H: 95° / V: 48°	
Video	Video Compression	H.265 / H.264 / MJPEG	
video	Video Frame Rate	Max. 30 fps for 5M/4M/1080P/720P/D1/CIF	
	Day/Night	Auto / Day / Night(ICR)	
Function	BLC/HLC/WDR	Yes	
i unction	White Balance	Auto / Manual	
	IVS	Motion detection, Line Crossing, Area Intrusion, Region Entrance, Region Exiting	
	Audio Compression	G.711 A-law, G.711 μ-law, 128kbps, sampling rate 8kHz	
Audio	Speaker / Mic	3W Built-in Speaker , Built-in MIC (For TSM)	
	Function	TSM ( True Sound Monitoring )	
	Interface	RJ-45 ( 10/100 BASE-T )	
Network	Protocol	ONVIF(profile S), EMSTONE_P, IPv4, TCP/IP, UDP, RTP, RTSP, RTMP, HTTP, HTTPS	
	User/Host	10	
	Power Supply	PoE (802.af) / DC12V (12W)	
Power	Operating Conditions	-20°C to +50°C	
	Protection	IP66	
01	Dimensions	Ф93.5 x 278.9 mm	
Structure	Net Weight	1000g	

 $\ensuremath{\mbox{\ensuremath{\mbox{\sc W}}}}$  The specification of this product may change without prior notice.

# Thermal CAMERA

**EM-IX(Q2713P)** 



## **Specification** -

Model		EM-IX(Q2713P)	
Camera	Image Sensor	1/2.8" 5Megapixel progressive CMOS	
	Max. Resoluition	2692 x 1944 pixel	
	Electronic Shutter Speed	1 sec ~ 1/10,000sec	
	Min. Illumination	0.05Lux(Color), 0.001Lux(B/W), 0 Lux(light)	
	Illumination Distance	More than 50M, Wave: 850nm	
	LED Type	IR LED	
	Detector Type	Uncooled VOx Microbolomter	
Thermal	Resolution	256 x 194 pixel	
	Spectral Range	8 μm–14 μm	
	Thermal Sensitivity	≤45mK(@F#1.0, 300k)	
	Lens	3.2mm F1.1 (HFOV X VFOV : 51°x 39°)	
	Lens Type	Motorized Vari-focal	
Lens	Focal Length	2.7 ~ 13.5 mm, F1.6 ~ F 2.8	
	Field of View	101.9°(W) ~ 33.1°(T)	
\	Video Compression	H.265 / H.264 / MJPEG	
Video	Video Frame Rate	Max. 30 fps for 5M/4M/1080P/720P/D1/CIF	
	Day/Night	Auto / Day / Night(ICR)	
F #:	BLC/HLC/WDR	Yes	
Function	White Balance	Auto / Manual	
	IVS	Motion detection, Line Crossing, Area Intrusion, Region Entrance, Region Exiting	
A 1'	Audio Compression	G.711 A-law, G.711 µ-law, 128kbps, sampling rate 8kHz	
Audio	Speaker / Mic	3W Built-in Speaker	
	Interface	RJ-45 ( 10/100 BASE-T )	
Network	Protocol	ONVIF(profile S), EMSTONE_P, IPv4, TCP/IP, UDP, RTP, RTSP, RTMP, HTTP, HTTPS	
	User/Host	10	
	Power Supply	PoE+ / DC12V (18W)	
Power	Operating Conditions	-30°C to +50°C	
	Protection	IP66	
Structure	Dimensions	132 x 250 x 116 mm	
	Net Weight	1300g	

## **E**EMSTONE

