Surveon Camera Introduction

High Reliability with Superior Image Quality

Surveon
Complete Megapixel Solutions

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Advantage to Customer

- **Save Maintenance Cost with Robust Performance**
  - ➢ Industrial-grade component
  - ➢ IK10 & IP66 / 67

- **See Details Clearly under Different Lighting Conditions**
  - ➢ High Dynamic Range (HDR)
  - ➢ Low Light Sensitivity & Low Bit Rates

- **View Smoothly & Save Storage**
  - ➢ Dynamic Streaming
  - ➢ ROI Encoding

- **Balance Image Quality with Smart Control**
  - ➢ Smart Auto Quality Change & Smart Auto WDR / HDR
  - ➢ Smart De-noise / Smart Shutter

Surveon   Other Camera

Surveon   Other Camera

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Product Strength

High Reliability with Low RMA Rate

- Industrial-grade components

Superior Image Quality

- HDR & Low light sensibility

Optimized Bandwidth Control

- Dynamic Streaming & RIO Encoding

Advanced Firmware Control

- Smart WDR, Smart Shutter, Smart De-noise, Offline Recording etc.

Built-in Video Analytics

- People Counting, Object Motion Direction & Object Loitering etc.

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Product Strength —

High Reliability with Low RMA Rate

Industrial-Grade Components

- All Industrial-Grade Components

- Own Manufacturing, Housing, 3-Year Warranty
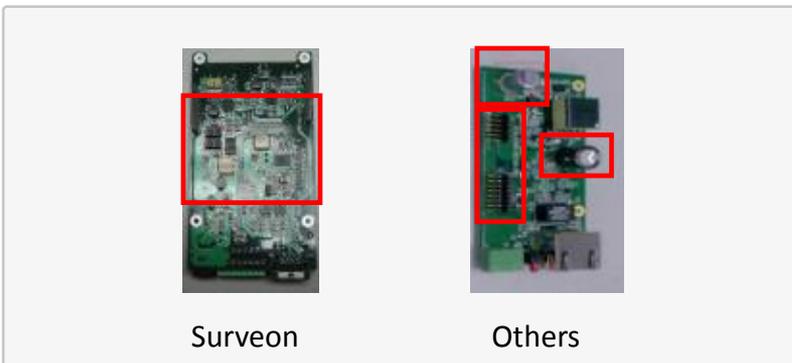
Tantalum capacitors and ceramic capacitors in Surveon cameras

Surveon   Others

3rd Party Lab Certifications

- **IK10 & IP66/67**
  - ➢ Trusted 3rd Party Lab Certifications
  - ➢ Own Housing, Design, ESD, EMI Protected

IK10 Test

IP66/67 Test

Temperature & Humidity Test
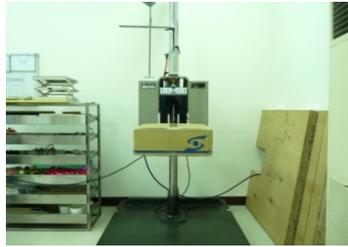
Drop Test

Vibration Test

Altitude Chamber Test

Heating Test
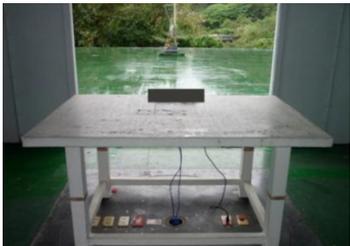
Radiated Emission

Conducted Emission

Harmonic & Flicker

EFT & Surge & Dip

Input Test

Success Case - Kaohsiung City, Taiwan

"We have 3,000+ cameras installed on this city surveillance project. Surveon's industrial designed and 100% own manufactured cameras have made us feel confident about this project. The cameras are now being used for **more than 3 years with an average failure rate of less than 0.03%** *which is really impressive and save a lot cost on maintenance"* said, Tony Chan, manager for the KS city surveillance project.

Product Strength —

Superior Image & Bandwidth Control

High Dynamic Range (120 dB)

- The details of the images can be seen clearly even under high contrast lighting conditions.

Day time

Night time

Surveon

Other Camera

Surveon

Other Camera

Low Light Sensitivity

- Surveon cameras support the maximum shutter control to 1 at 1 second to ensure the viewable video under ultra low light conditions.

Surveon: Advanced Shutter Control

Other Camera: Standard Shutter Control

Low Bit Rates

- **High profile setting** shows better quality images even under the same bit rate.

Surveon: H.264 High Profile @ 4Mbps CBR

Other Camera: H.264 Baseline @ 4Mbps CBR

Dynamic Streaming

- To reduce the bandwidth for network and storage, Surveon cameras support **configurable frame rates and bit rates** when no motion is detected or network fails.

- When there is motion detected, the camera frame rate and bit rate will automatically switch back to its original settings, enabling **network bandwidth and storage saving**.

No Motion: 5 FPS, 512 Kbps

Motion: 30 FPS, 2 Mbps

Region of Interest (ROI) Encoding

- Support Region of Interest (ROI) Encoding to **reduce the bit rate for best bandwidth control**.

- Up to **8 regions with different configurations of image quality and bit rate** - a higher bit rate for the important area and a lower one for the less important section, saving bandwidth and storage.

High Bit Rate — Low Bit Rate

6Mbps

6

50% Bit Rate Saving

3Mbps

3

Bit Rate   Others   Surveon
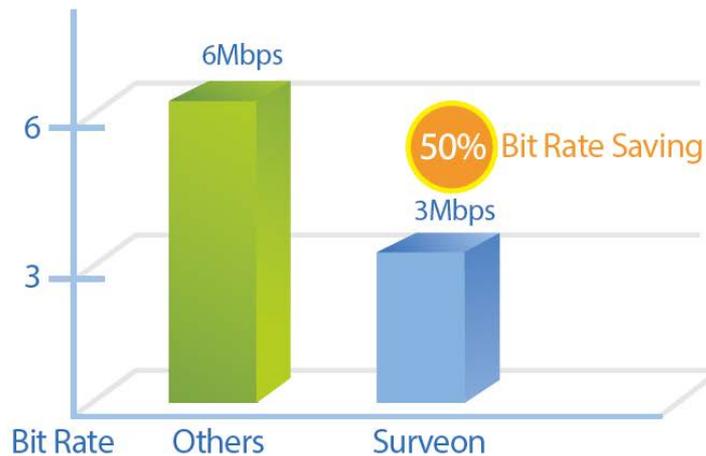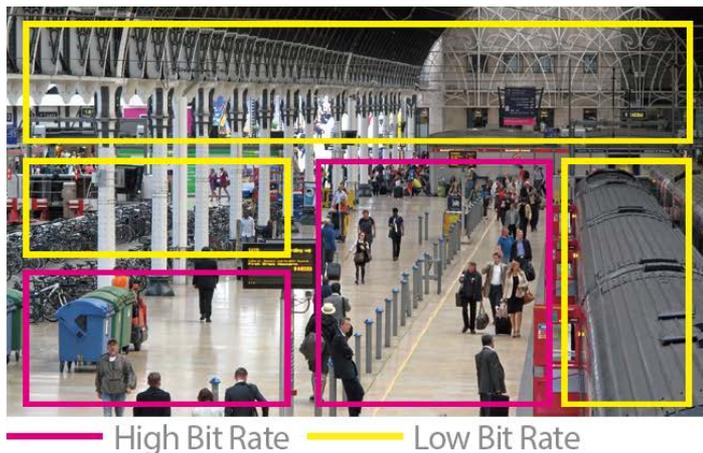
Product Strength —

Advanced Firmware Control

Smart Auto Quality Change

- Surveon cameras support at least two image profiles in different image parameters on the subjects of **iris, shuttle speed, AGC, brightness, contrast, and DNR levels**.

- The two profiles can be **automatically changed by day and night settings** to ensure a fixed image quality even under different lighting environments.

IRIS
AGC = 30
Shutter = 1/60
Brightness = 50
HDR ON

IRIS
AGC = 50
Shutter = 1/30
Brightness = 60
HDR OFF

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Smart Auto WDR / HDR

- Surveon cameras can detect the lux distributed condition to **enable or disable the WDR/ HDR functions automatically**.

Surveon Smart HDR

Other Camera HDR

Smart De-noise

- Surveon camera series can detect the lux level to **dynamically adjust the de-noise value** to fit the day / night changes automatically.

Without De-noise

Smart De-noise in Low Light

Smart De-noise in Normal Light

Smart Shutter

- The Smart Shutter (Smart Object Speed Detection) **automatically detects the lighting source and the speed of the object** to compensate the shutter speed control to **avoid the blurring image**.

Surveon Smart Shutter

Other Camera Auto Shutter

Advanced IRIS Control

- Surveon's advanced iris control and in-house developed **P-iris** exceed the limitations of DC-iris in conventional cameras, providing the excellent balance between focus, illumination and depth of fields.

Surveon

Other Camera

iSCSI Direct Recording

- Surveon cameras support **video being directly recorded to the block level iSCSI storage** to utilize network bandwidth and prevent overloading for the file system.
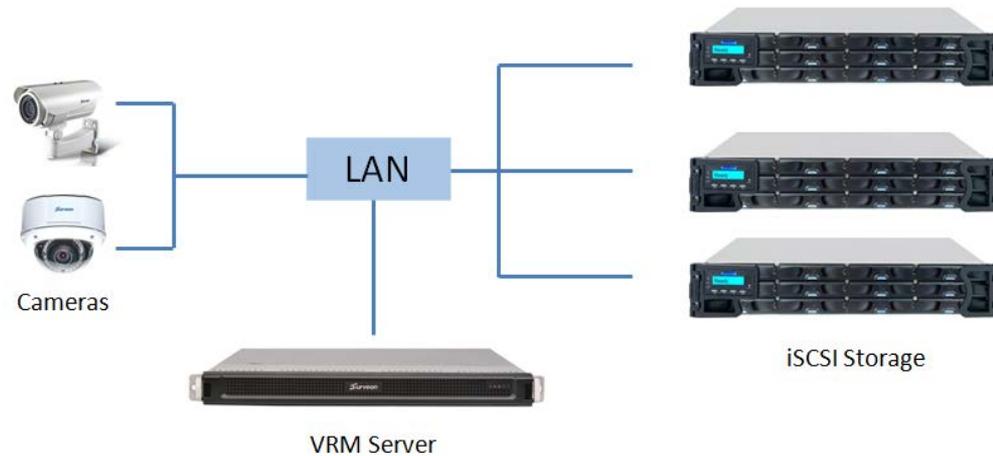
Offline Recording

- **Store data to the microSD/SDHC card** when the network loses connections.

- The recorded images will be transferred to NVR automatically once the network is reconnected.

- This recovery bandwidth can be configured to balance the streams of live view and recovery.
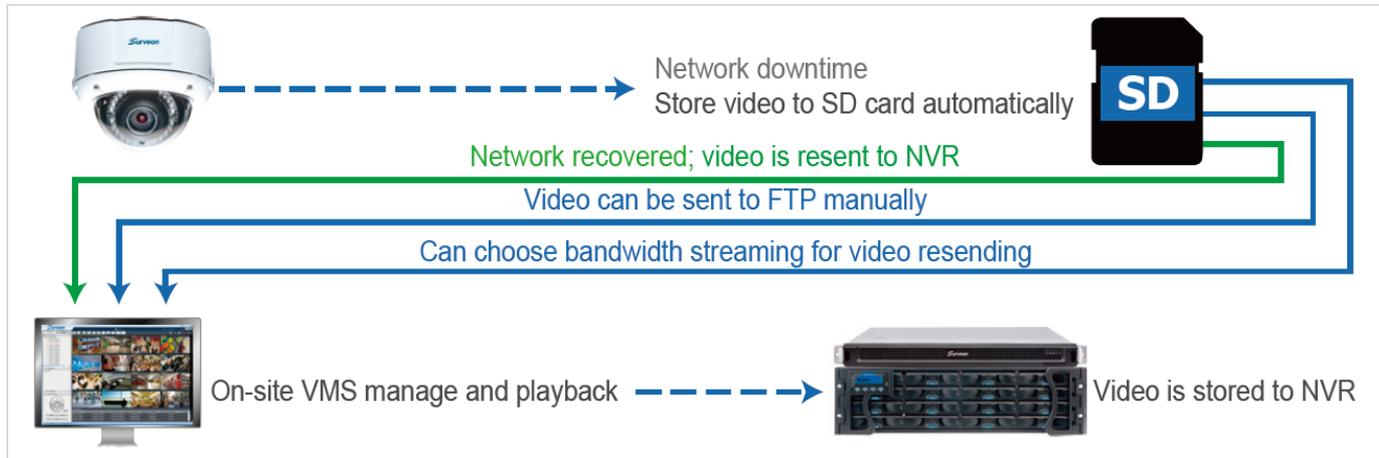
Product Strength —

Built-in Video Analytics

Advanced Video Analytics

- Surveon Video Analysis Camera Series has 5 major functions:

People / Vehicle Counting	Area-Entering or Leaving Detection	Object Loitering

Object Motion Direction Detection	Optical Diagnosis

Excessive Brightness

Out of Focus

Surveon Camera Highlight

Advanced Features

- **Usability:**
  - Support IE10, IE11, Firefox , Google Chrome and Safari Browsers
  - Auto UPnP Port Forward
 - Auto Focus Value

- **Advanced Image Controls:**
  - Smart Auto WDR / HDR, Smart De-noise & IRIS Control
  - Smart Shutter, Auto Focus
  - Dynamic Streaming, Record with Watermark
  - Dead Pixel Correction, Lens Dewarp

- **Other Functions:**
  - Support microSDXC Card (Max. 64GB)
  - Network Disconnection with FPS / Bit Rate Change
  - Digital Input Trigger Day / Night Switch
  - Support H.264 SVC-T, Support IP Filter
  - Event Trigger Action Snapshots to SD Card or NAS

Firefox Safari Internet Explorer Chrome

Surveon   Other Camera

Network downtime
Store video to SD card automatically
Network recovered; video is resent to NVR
Video can be sent to FTP manually
Can choose bandwidth streaming for video resending
On-site VMS manage and playback
Video is stored to NVR
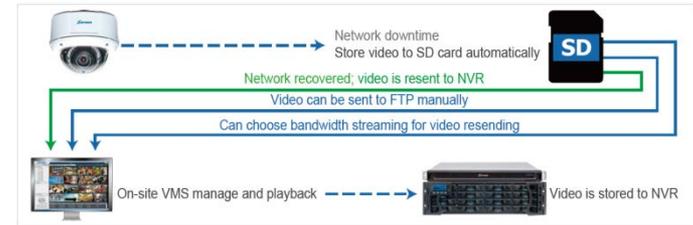
Complete Product Lineup

- From 1M, 2M, 3M, 5M full line & all form factors
- Advanced 3M real-time HDR & VA cameras

Box Cameras	Bullet Cameras	Indoor Dome Cameras
Outdoor Dome Cameras	PT/PTZ Dome Cameras	Fisheye Cameras

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Surveon Camera Models

Type	Resolution	Economical	Professional	Premium
Box	1 MP	CAM1200, CAM1201		
	2 MP		CAM2311SC	CAM2311SC, CAM2331SP
	3 MP			CAM2441SC, CAM2441HI
	5 MP			CAM2511
Bullet	2 MP		CAM3351R4/R6, CAM3361LV	CAM3371EM/EV
	3 MP		CAM3451R3/R63, CAM3461LV	CAM3471HEM/HEV, CAM3471HI
	5 MP			CAM3571M/MP/VP
Indoor Dome	1 MP	CAM4211, CAM4221		
	2 MP	CAM1320S2	CAM4311S2, CAM4321LV	
	3 MP	CAM1420S2	CAM4410S2, CAM4411S2/S3/S4/S6, CAM4421LV	
	5 MP		CAM4521LV	
Outdoor Dome	2 MP		CAM4351R2, CAM4361LV	CAM4371HEM/HEV
	3 MP		CAM4461LV	CAM4471HEM/HEV, CAM4471HI
	5 MP		CAM4561LV	CAM4571M/MP/VP
PT/PTZ Dome	D1			CAM6181
	2 MP		CAM5321S4	CAM5330SZ, CAM6351, CAM6351A
	3MP			CAM6471EZ
Fisheye	5 MP			CAM4571RF, CAM7510, CAM7511

3rd-party VMS Compatibility List

- Surveon camera models have been fully tested for compatibility with the 3rd-party VMS solutions, giving customers a broad range of selections for their projects. Check out the compatible VMS Solution Provider List.

Ask Surveon
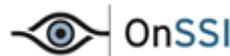
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Thank You

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