



**BOSCH**  
Invented for life

# IP Video product overview

January 2019



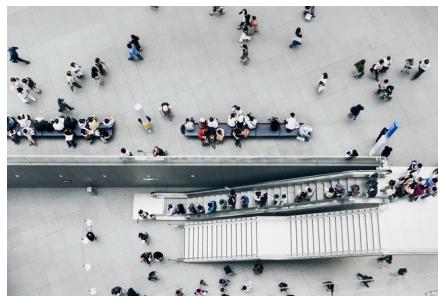
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# Video systems

## Rethink video security

At Bosch we are dedicated to innovating security where you need it most. We constantly push the boundaries of technology to develop intelligent solutions that go beyond the highest security demands of today and deliver clear business advantages beyond security. We believe that the logical next-step for security is to enable customers to interpret the data to start repurposing these huge amounts of video data. The ability to interpret video data directly at source helps to substantially improve levels of security, as well as offering clear business advantages.



## Utilize the hidden potential

Despite the huge amounts of video data collected, statistics say that only 10% of data is ever used and most of the data collected loses its value within seconds of being generated. Why are we only using such a limited amount of data? We are mainly focused on delivering the right

information in case of an emergency or providing the correct evidence after a criminal act.

We believe that the future is to utilize the hidden potential and use 100% of the video security data. Allowing this data to do far more for businesses than security alone.



## Video analytics at the edge

So what about the hidden potential of that unused data? Wouldn't it be great to enable captured video data to do more for businesses than security alone? With built-in video analytics as standard, we enable customers to interpret data directly at the source, to re-assign it to help them make smarter business decisions. Anything from monitoring presence to reduce utility bills, to identifying patterns in customer activity to improve sales by recognizing 'hot spots' in retail environments. Or distinguishing 'road blocks' to optimize shop layout to increase customer satisfaction.

## Areas of expertise

Before we can rethink video security we need to ensure that excellence in video security and data management is given. This is why our intelligent portfolio is built around our areas of expertise. Delivering highest quality of relevant images, most efficient bitrates with lowest storage requirements and network strain, and keeping video data secure.

## Highest image quality

Bosch delivers the highest quality images with technologies such as resolutions up to 4K ultra HD, starlight technology and excellent dynamic ranges.



## Intelligent bitrate management

Bosch helps to reduce bitrate by up to 80% and substantially lower network strain and storage requirements without compromising video quality.



## Data security

Bosch video security solutions offer various software and hardware measures, such as a built-in Trusted Platform Module, to keep video data secure.



## The new range of 'i' cameras feature

- Built-in intelligence
- Latest high performance camera platform offering:



Highest image quality



Bitrate reduction ≤80%



Latest data Security measures



Future-proof solution With H.265

## Essential Video Analytics

- Business intelligence
- Advanced intrusion detection
- Quick retrieval of data
- Alerts when needed



People counting

Fixed

Indoor

Outdoor

Non IR

IR

Non IR

IR

starlight



**FLEXIDOME IP 4000i**  
► 1080p@30fps / 88 dB  
**FLEXIDOME IP 5000i**  
► 5MP@30fps / 120 dB



**FLEXIDOME IP 4000i IR**  
► 1080p@30fps / 88 dB / 30m IR  
**FLEXIDOME IP 5000i IR**  
► 5MP@30fps / 120 dB / 30m IR



**FLEXIDOME IP 4000i**  
► 1080p@30fps / 88 dB  
**FLEXIDOME IP 5000i**  
► 5MP@30fps / 120 dB  
► IP66 / IK10



**FLEXIDOME IP 4000i IR**  
► 1080p@30fps / 88 dB / 30m IR  
► IP66 / IK10  
**FLEXIDOME IP 5000i IR**  
► 5MP@30fps / 120 dB / 30m IR  
► IP66 / IK10  
**DINION IP 4000i IR**  
► 1080p@30fps / 85 dB / 60m IR  
► IP67 / IK10



**DINION IP starlight 6000i IR**  
► 1080p@60fps / 134 dB / 60m IR  
► IP67 / IK10

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# All 'i' cameras have built-in intelligence



Queuing alarm

Enforcing health and safety regulations

## Intelligent Video Analytics

- Analysis over large distances
- Resistant against shaking
- Extreme weather
- Intelligent Tracking

Reliable alerts,  
even in extreme  
weather conditionsVideo Analytics  
extremely resistant  
against shakingVideo content  
analysis over  
large distances

Moving

Indoor

Outdoor

Non IR

Non IR

IR

Fixed

Indoor / Outdoor

Moving

Extreme Outdoor

Optical &amp; Thermal

**AUTODOME IP 4000i**

► 1080p@60fps / 94 dB

► IP65 / IK10

**AUTODOME IP 4000i**

► 1080p@60fps / 94 dB

► In-ceiling / IP51 / IK6

**AUTODOME IP 5000i**

► 1080p@60fps / 94 dB

► IP66 / IK10

**AUTODOME IP 5000i**

► 1080p@60fps / 94 dB

► In-ceiling / IP51 / IK6

**AUTODOME IP starlight 5000i**

► 1080p@60fps / 120 dB

► IP66 / IK10

**AUTODOME IP starlight 5000i**

► 1080p@60 fps / 120 dB

► In-ceiling / IP 51 / IK6

**AUTODOME IP 5000i IR**

► 1080p@60fps / 94 dB / 180m IR

► IP66

**AUTODOME IP starlight 5000i IR**

► 1080p@60 fps / 120 m IR

► IP66

**FLEXIDOME IP starlight 8000i**

► 1080p@60fps / 134 dB

► IP66

**FLEXIDOME IP starlight 8000i**

► 6MP@30fps / 120 dB

► IP66 / UL Type 4X / NEMA-TS2 / IK10+

**FLEXIDOME IP starlight 8000i**

► 4K ultra HD@30fps / 120 dB

► IP66 / UL Type 4X / NEMA-TS2 / IK10+

**MIC IP starlight 7000i**

► 1080p@60fps / 120 dB / 450m IR\*

► IP68 / UL Type 6P / NEMA-TS2 / IK10

\*Optional illuminator

**MIC IP fusion 9000i**

► 1080p@60fps / 120 dB / IK10

► IP68 / UL Type 6P / NEMA-TS2

# Essential Video Analytics

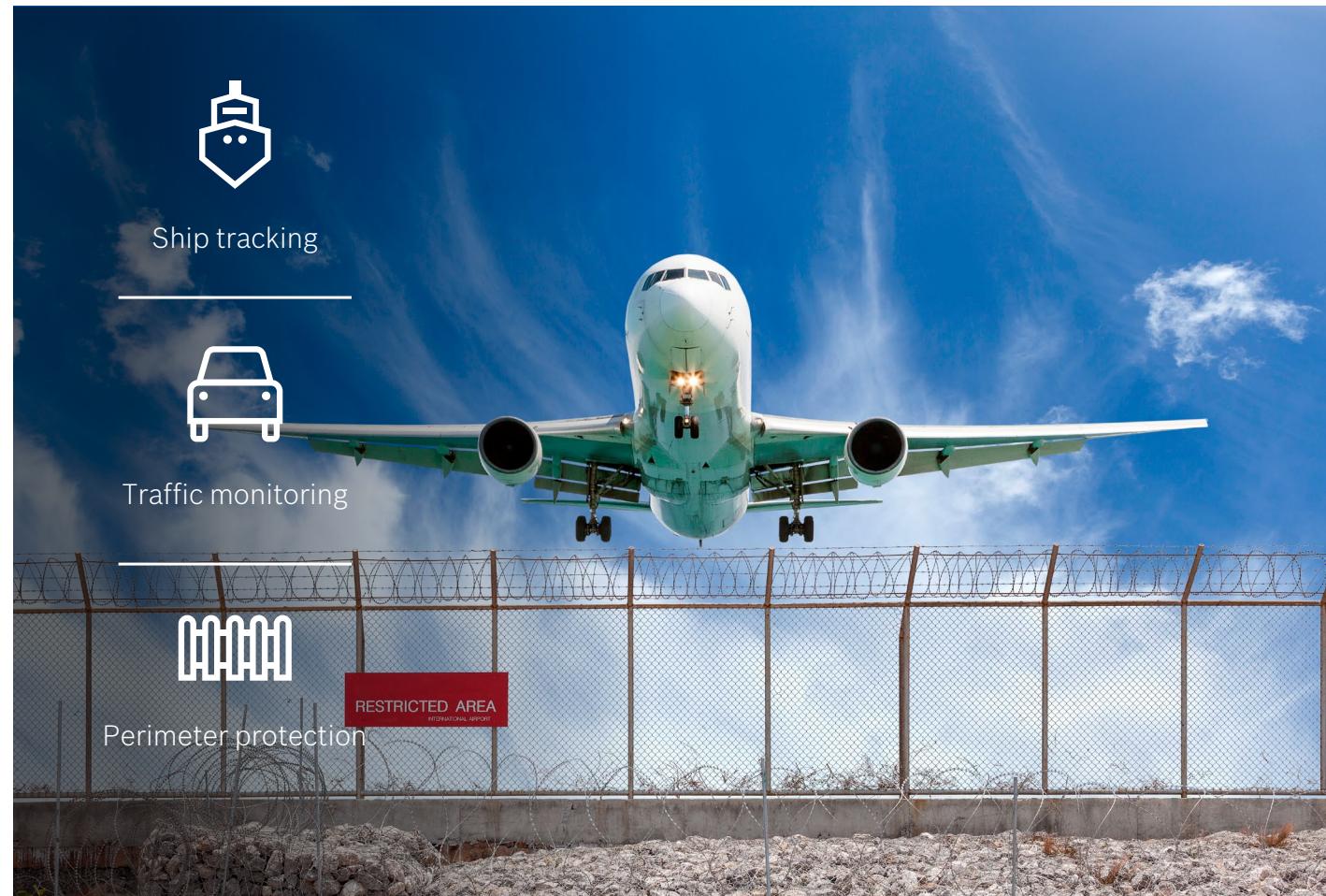


Essential Video Analytics is the ideal analytics solution for small and medium businesses, large retail stores, commercial buildings, warehouses and logistics depots. It can be used for advanced intrusion detection (such as loitering alarms and identifying a person or object entering a pre-defined field), enforcing health and safety regulations such as no-parking zones, detecting blocked emergency exits or objects that have been left behind, and analyzing behavior in retail environments.

# Intelligent Video Analytics

Intelligent Video Analytics offers the ultimate in built-in video analytics and is specifically designed for the most demanding environments. This state-of-the-art solution is ideal for mission-critical applications like perimeter protection of airports, critical infrastructures and government buildings, border patrol and traffic monitoring (e.g. wrong-way detection, traffic counts, and parked cars). Intelligent Video Analytics can do everything that Essential Video Analytics does.

It also has the unique ability to perform video content analysis over large distances and differentiate between genuine security events and known false triggers such as snow, wind (moving trees), rain, hail, and water reflections that can make video data more difficult to interpret. Cameras with Intelligent Video Analytics are also extremely resistant against shaking caused by punishing winds, city traffic or bicycles parked against the camera pole.



**IP Video**

## Dome Cameras

## ►FLEXIDOME IP micro 5000



■ Available – Not available

Commercial Type Number		NUC-51022-FX	NUC-51051-FX
Video analytics at the edge	Essential Video Analytics	–	–
	Intelligent Video Analytics	–	–
Bitrate management	Intelligent Dynamic Noise Reduction	■	■
	Intelligent streaming	–	■
	Compression (H.265 / H.264 & MJPEG) / multi-streaming	–/■/4 streams	–/■/4 streams
Basic features	Maximum resolution	HD 1080p	5MP
	Image sensor type	1/2.7"	1/3"
	Max. frames per second (fps)	30 fps@ 1080p	12 fps@ 5MP
	Indoor / outdoor	■/■	■/■
	Day / night	■ (electronic)	■ (electronic)
	Wide Dynamic Range (WDR)	76dB	65dB
	ONVIF conformant	■	■
	Built-in microphone	–	–
Advanced features	Intelligent Auto Exposure / Intelligent Defog	–/–	–/–
	Privacy masking	■	■
	Region Of Interest tracking	–	–
Alarm triggering	Tamper detection / Video motion detection	■/■	■/■
	Built-in video analytics	–	–
	Audio detection	–	–
Sensitivity	Minimum illumination day mode (color)	0.4 lux (F4) 1 lux (F2)	0.8 lux (F4) 2 lux (F2)
	Minimum illumination night mode (black/white)	–	–
	Night vision	–	–
	Max. range at night	–	–
Lens	Automatic varifocal	–	–
	Focal length	3.6 mm (F4) 2.5 mm (F2)	3.6 mm (F4) 2.5 mm (F2)
	Horizontal Angle of View (HAoV)	97° (F4) 135° (F2)	69° (F4) 105° (F2)
DORI distances	Detect / Observe / Recognize / Identify (Distances according to EN-IEC 62676-4 standard)	34/13/7/3 (F4) 16/6/3/2 (F2)	69/27/14/7 (F4) 40/16/8/4 (F2)
Storage	Industrial SD card support with health monitoring	■	■
	Cloud application storage	Auto or Alarm JPEG Posting, Video Clips or JPEG Exporting	Auto or Alarm JPEG Posting, Video Clips or JPEG Exporting
Connections	Alarm input / output	–/–	–/–
	Audio in / out	–	–
	Hybrid / public view monitor	■/■	–/■
Housing	Weather rating	IP66	IP66
	Vandal resistant	IK08	IK08
	Operating temperature	-30° to 50° C (-22° to 122° F)	-30° to 50° C (-22° to 122° F)
Power input voltage	Power over Ethernet/12V/24V	■/–/–	■/–/–

## IP Video

### Dome Cameras

►FLEXIDOME IP outdoor 4000 HD



►FLEXIDOME IP outdoor 4000 IR



■ Available – Not available

Commercial Type Number		NDN-41012-V3	NDI-41012-V3
Video analytics at the edge	Essential Video Analytics	–	–
	Intelligent Video Analytics	–	–
Bitrate management	Intelligent Dynamic Noise Reduction	■	■
	Intelligent streaming	■	■
	Compression (H.265/H.264 & MJPEG) / multi-streaming	-/■/4 streams	-/■/4 streams
Basic features	Maximum resolution	HD 720p/1.3 MP (4:3)	HD 720p/1.3 MP (4:3)
	Image sensor type	1/2.7"	1/2.7"
	Max. frames per second (fps)	30 fps@ 720p	30 fps@ 720p
	Indoor/outdoor	■/■	■/■
	Day/night	■	■
	Wide Dynamic Range (WDR)	76dB	76dB
	ONVIF conformant	■	■
	Built-in microphone	–	–
Advanced features	Intelligent Auto Exposure / Intelligent Defog	– / ■	– / ■
	Privacy masking	■	■
	Region Of Interest tracking	–	–
Alarm triggering	Tamper detection / Video motion detection	■/■	■/■
	Built-in video analytics	–	–
	Audio detection	■	■
Sensitivity	Minimum illumination day mode (color)	0.24 lux	0.24 lux
	Minimum illumination night mode (black/white)	0.05 lux	0 lux (IR on) ■ (infrared)
	Night vision	–	–
	Max. range at night	–	15 m (50 ft) –
Lens	Automatic varifocal	–	–
	Focal length	3.3 - 10 mm	3.3 - 10 mm
	Horizontal Angle of View (HAoV)	35.3° - 105.5°	35.3° - 105.5°
DORI distances	Detect / Observe / Recognize / Identify (Distances according to EN-50132-7 standard)	16-79/6-31/3-16/2-8	16-79/6-31/3-16/2-8
Storage	Industrial SD card support with health monitoring	■	■
	Cloud application storage	Auto or Alarm JPEG Posting, Video Clips or JPEG Exporting	Auto or Alarm JPEG Posting, Video Clips or JPEG Exporting
Connections	Alarm input / output	1/1	1/1
	Audio in / out	■/■	■/■
	Hybrid* / public view monitor	■/■	■/■
Housing	Weather rating	IP66	IP66
	Vandal resistant	IK10	IK10
	Operating temperature	-40° to 50° C (-22° to 122° F)	-40° to 50° C (-22° to 122° F)
Power input voltage	Power over Ethernet / 12V / 24V	■/■/-	■/■/-

**IP Video**

## Dome Cameras

►FLEXIDOME IP outdoor 5000 IR   ►FLEXIDOME IP outdoor 5000 HD   ►FLEXIDOME IP indoor 5000 IR   ►FLEXIDOME IP indoor 5000 HD



■ Available – Not available

Commercial Type Number	NDI-50022-A3	NDN-50022-A3	NII-50022-A3	NIN-50022-A3
Video analytics at the edge	Essential Video Analytics –	–	–	–
Intelligent Video Analytics	–	–	–	–
Bitrate management	Intelligent Dynamic Noise Reduction ■ Intelligent streaming ■ Compression (H.265 / H.264 & MJPEG) / multi-streaming –/■/4 streams	■ ■ –/■/4 streams	■ ■ –/■/4 streams	■ ■ –/■/4 streams
Basic features	Maximum resolution HD 1080p Image sensor type 1/2.7" Max. frames per second (fps) 30 fps @ 1080p Indoor / outdoor ■/■ Day / night ■ Wide Dynamic Range (WDR) 76dB ONVIF conformant ■ Built-in microphone –	HD 1080p 1/2.7" 30 fps @ 1080p ■/■ ■ 76dB ■ ■ 76dB	HD 1080p 1/2.7" 30 fps @ 1080p ■/■ ■ 76dB ■ ■ 76dB	HD 1080p 1/2.7" 30 fps @ 1080p ■/– ■ 76dB ■ ■ 76dB
Advanced features	Intelligent Auto Exposure / Intelligent Defog –/■ Privacy masking ■ Region Of Interest tracking –	–/■ ■ –	–/■ ■ –	–/■ ■ –
Alarm triggering	Tamper detection / Video motion detection ■ Built-in video analytics – Audio detection ■	■ – ■	■ – ■	■ – ■
Sensitivity	Minimum illumination day mode (color) 0.24 lux Minimum illumination night mode (black/white) 0 lux (IR on) Night vision ■ (infrared) Max. range at night 15 m (50 ft)	0.24 lux 0.05 lux – 15 m (50 ft)	0.24 lux 0 lux (IR on) ■ (infrared) 15 m (50 ft)	0.24 lux 0 lux (IR on) – 15 m (50 ft)
Lens	Automatic varifocal ■ Focal length 3 -10 mm Horizontal Angle of View (HAoV) 36°-117°	■ 3 -10 mm 36°-117°	■ 3 -10 mm 36°-117°	■ 3 -10 mm 36°-117°
DORI distances	Detect / Observe / Recognize / Identify (Distances according to EN-IEC 62676-4 standard) 24-118/9-47/5-24/2-12	24-118/9-47/5-24/2-12	24-118/9-47/5-24/2-12	24-118/9-47/5-24/2-12
Storage	Industrial SD card support with health monitoring ■ Cloud application storage Auto or Alarm JPEG Posting, Video Clips or JPEG Exporting	■ Auto or Alarm JPEG Posting, Video Clips or JPEG Exporting	■ Auto or Alarm JPEG Posting, Video Clips or JPEG Exporting	■ Auto or Alarm JPEG Posting, Video Clips or JPEG Exporting
Connections	Alarm input / output 1/1 Audio in / out ■/■ Hybrid / public view monitor ■/■	1/1 ■/■ ■/■	1/1 ■/■ ■/■	1/1 ■/■ –
Housing	Weather rating IP66 Vandal resistant IK10 Operating temperature -40° to 50° C (-22° to 122° F)	IP66 IK10 -40° to 50° C (-22° to 122° F)	IP66 IK10 -40° to 50° C (-22° to 122° F)	IK04 – -20° to 50° C (-4° to 122° F)
Power input voltage	Power over Ethernet/12V/24V ■/■/–	■/■/–	■/■/–	■/■/–

## IP Video

### Dome Cameras



■ Available – Not available

		▶FLEXIDOME IP 4000i	▶FLEXIDOME IP 4000i	▶FLEXIDOME IP 4000i IR	▶FLEXIDOME IP 4000i IR
<b>Commercial Type Number</b>		NDI-4502-A	NDE-4502-A	NDI-4502-AL	NDE-4502-AL
Video analytics at the edge	Essential Video Analytics	■	■	■	■
	Intelligent Video Analytics	–	–	–	–
Bitrate management	Intelligent Dynamic Noise Reduction	■	■	■	■
	Intelligent streaming	■	■	■	■
	Compression (H.265 / H.264 & MJPEG) / multi-streaming	■/■/4 streams	■/■/4 streams	■/■/4 streams	■/■/4 streams
Basic features	Maximum resolution	HD 1080p	HD 1080p	HD 1080p	HD 1080p
	Image sensor type	1/2.9"	1/2.9"	1/2.9"	1/2.9"
	Max. frames per second (fps)	30 fps@ 1080p	30 fps@ 1080p	30 fps@ 1080p	30 fps@ 1080p
	Indoor / outdoor	■/–	■/■	■/–	■/■
	Day / night	■	■	■	■
	Wide Dynamic Range (WDR)	88dB	88dB	88dB	88dB
	ONVIF conformant	■	■	■	■
	Built-in microphone	■	–	■	–
Advanced features	Intelligent Auto Exposure / Intelligent Defog	–/■	–/■	–/■	–/■
	Privacy masking	■	■	■	■
	Region Of Interest tracking	–	–	–	–
	Upright video mode	■	■	■	■
Alarm triggering	Tamper detection / Video motion detection	■	■	■	■
	Built-in video analytics	■	■	■	■
	Audio detection	■	■	■	■
Sensitivity	Minimum illumination day mode (color)	0.1 lux	0.1 lux	0.1 lux	0.1 lux
	Minimum illumination night mode (black / white)	0.02 lux	0.02 lux	0 lux (IR on)	0 lux (IR on)
	Night vision	–	–	■ (infrared)	■ (infrared)
	Max. range at night	–	–	30 m (98 ft)	30 m (98 ft)
Lens	Automatic varifocal	■	■	■	■
	Focal length	3 - 10 mm			
	Horizontal Angle of View (HAoV)	34° - 101°	34° - 101°	34° - 101°	34° - 101°
DORI distances	Detect / Observe / Recognize / Identify (Distances in according to EN-IEC 62676-4 standard)	32-126/13-50/6-25/3-13	32-126/13-50/6-25/3-13	32-126/13-50/6-25/3-13	32-126/13-50/6-25/3-13
Storage	Industrial SD card support with health monitoring	■	■	■	■
	Cloud application storage	Auto or Alarm JPEG Posting, Video Clips or JPEG Exporting	Auto or Alarm JPEG Posting, Video Clips or JPEG Exporting	Auto or Alarm JPEG Posting, Video Clips or JPEG Exporting	Auto or Alarm JPEG Posting, Video Clips or JPEG Exporting
Connections	Alarm input / output	1/1	1/1	1/1	1/1
	Audio in / out	■/■	■/■	■/■	■/■
	Hybrid / public view monitor	■/■	■/■	■/■	■/■
Housing	Weather rating	–	IP66	–	IP66
	Vandal resistant	IK04	IK10	IK04	IK10
	Operating temperature	-20° to 50° C (-4° to 122° F)	-40° to 50° C (-22° to 122° F)	-20° to 50° C (-4° to 122° F)	-40° to 50° C (-22° to 122° F)
Power input voltage	Power over Ethernet/12V/24V	■/■/■	■/■/■	■/■/■	■/■/■

**IP Video**

## Dome Cameras



■ Available – Not available

		▶FLEXIDOME IP 5000i	▶FLEXIDOME IP 5000i	▶FLEXIDOME IP 5000i IR	▶FLEXIDOME IP 5000i IR
<b>Commercial Type Number</b>		NDI-5503-A	NDE-5503-A	NDI-5503-AL	NDE-5503-AL
Video analytics at the edge	Essential Video Analytics	■	■	■	■
	Intelligent Video Analytics	–	–	–	–
Bitrate management	Intelligent Dynamic Noise Reduction	■	■	■	■
	Intelligent streaming	■	■	■	■
	Compression (H.265 / H.264 & MJPEG) / multi-streaming	■/■/4 streams	■/■/4 streams	■/■/4 streams	■/■/4 streams
Basic features	Maximum resolution	5MP	5MP	5MP	5MP
	Image sensor type	1/2.9"	1/2.9"	1/2.9"	1/2.9"
	Max. frames per second (fps)	30 fps@ 5MP	30 fps@ 5MP	30 fps@ 5MP	30 fps@ 5MP
	Indoor / outdoor	■/-	■/■	■/-	■/■
	Day / night	■	■	■	■
	Wide Dynamic Range (WDR)	120dB	120dB	120dB	120dB
	ONVIF conformant	■	■	■	■
	Built-in microphone	■	–	■	–
Advanced features	Intelligent Auto Exposure / Intelligent Defog	■/■	■/■	■/■	■/■
	Privacy masking	■	■	■	■
	Region Of Interest tracking	–	–	–	–
	Upright video mode	■	■	■	■
Alarm triggering	Tamper detection / Video motion detection	■	■	■	■
	Built-in video analytics	■	■	■	■
	Audio detection	■	■	■	■
Sensitivity	Minimum illumination day mode (color)	0.24 lux	0.24 lux	0.24 lux	0.24 lux
	Minimum illumination night mode (black/white)	0.03 lux	0.03 lux	0 lux (IR on)	0 lux (IR on)
	Night vision	–	–	■ (infrared)	■ (infrared)
	Max. range at night	–	–	30 m (98 ft)	30 m (98 ft)
Lens	Automatic varifocal	■	■	■	■
	Focal length	3 - 10 mm			
	Horizontal Angle of View (HAoV)	29° - 92°	29° - 92°	29° - 92°	29° - 92°
DORI distances	Detect / Observe / Recognize / Identify (Distances according to EN-IEC 62676-4 standard)	59-266/24-106/12-53/6-27	59-266/24-106/12-53/6-27	59-266/24-106/12-53/6-27	59-266/24-106/12-53/6-27
Storage	Industrial SD card support with health monitoring	■	■	■	■
	Cloud application storage	Auto or Alarm JPEG Posting, Video Clips or JPEG Exporting	Auto or Alarm JPEG Posting, Video Clips or JPEG Exporting	Auto or Alarm JPEG Posting, Video Clips or JPEG Exporting	Auto or Alarm JPEG Posting, Video Clips or JPEG Exporting
Connections	Alarm input / output	1/1	1/1	1/1	1/1
	Audio in / out	■/■	■/■	■/■	■/■
	Hybrid / public view monitor	■/■	■/■	■/■	■/■
Housing	Weather rating	–	IP66	–	IP66
	Vandal resistant	IK04	IK10	IK04	IK10
	Operating temperature	-20° to 50° C (-4° to 122° F)	-40° to 50° C (-22° to 122° F)	-20° to 50° C (-4° to 122° F)	-40° to 50° C (-22° to 122° F)
Power input voltage	Power over Ethernet/12V/24V	■/■/■	■/■/■	■/■/■	■/■/■

## IP Video

### Dome Cameras

►FLEXIDOME IP starlight 6000 VR ►FLEXIDOME IP starlight 7000 VR ►FLEXIDOME IP starlight 6000 VR ►FLEXIDOME IP starlight 7000 VR



■ Available – Not available

		NIN-63013-Axxx	NIN-73013-Axxx	NIN-63023-Axxx	NIN-73023-Axxx
Video analytics at the edge	Essential Video Analytics	■	–	■	–
	Intelligent Video Analytics	–	■	–	■
Bitrate management	Intelligent Dynamic Noise Reduction	■	■	■	■
	Intelligent streaming	■	■	■	■
	Compression (H.265 / H.264 & MJPEG) / multi-streaming	–/■/4 streams	–/■/4 streams	–/■/4 streams	–/■/4 streams
Basic features	Maximum resolution	720p	720p	1.3MP / 1080p	1.3MP / 1080p
	Image sensor type	1/2.8"	1/2.8"	1/2.8"	1/2.8"
	Max. frames per second (fps)	60fps @ 720p	60 fps@ 720p	60 fps@ 1.3MP / 1080p	60 fps@ 1.3MP / 1080p
	Indoor / outdoor	■/■	■/■	■/■	■/■
	Day / night	■	■	■	■
	Wide Dynamic Range (WDR)	120dB	120dB	120dB	120dB
	ONVIF conformant	■	■	■	■
	Built-in microphone	–	–	–	–
Advanced features	Intelligent Auto Exposure / Intelligent Defog	■/■	■/■	■/■	■/■
	Privacy masking	■	■	■	■
	Region Of Interest tracking	■	■	■	■
	Upright video mode	■	■	■	■
Alarm triggering	Tamper detection / Video motion detection	■/■	■/■	■/■	■/■
	Built-in video analytics	■	■	■	■
	Audio detection	■	■	■	■
Sensitivity	Minimum illumination day mode (color)	0.0075 lux	0.0075 lux	0.0075 lux	0.0075 lux
	Minimum illumination night mode (black / white)	0.0011 lux	0.0011 lux	0.0011 lux	0.0011 lux
	Night vision	■ (starlight)	■ (starlight)	■ (starlight)	■ (starlight)
	Max. range at night	–	–	–	–
Lens	Automatic varifocal	■	■	■	■
	Focal length	3 - 9 mm (A3xx)	3 - 9 mm (A3xx) 10 - 23 mm (A10xx)	3 - 9 mm (A3xx)	3 - 9 mm (A3xx) 10 - 23 mm (A10xx)
	Horizontal Angle of View (HAoV)	37° - 117° (A3xx)	37° - 117° (A3xx) 14.4° - 32° (A10xx)	37° - 117° (A3xx)	37 ° - 117° (A3xx) 14.4° - 32° (A10xx)
DORI distances	Detect / Observe / Recognize / Identify (Distances in according to EN-IEC 62676-4 standard)	16-77/6-30/3-15/2-8 (A3xx)	16-77/6-30/3-15/2-8 (A3xx) 89-203/35-80/18-41/9-20 (A10xx)	24-115/9-46/5-23/2-12 (A3xx)	24-115/9-46/5-23/2-12 (A3xx) 134-304/53-121/27-61/13-30 (A10xx)
Storage	Industrial SD card support with health monitoring	■	■	■	■
	Cloud application storage	Auto or Alarm JPEG Posting, Video Clips or JPEG Exporting	Auto or Alarm JPEG Posting, Video Clips or JPEG Exporting	Auto or Alarm JPEG Posting, Video Clips or JPEG Exporting	Auto or Alarm JPEG Posting, Video Clips or JPEG Exporting
Connections	Alarm input / output	2/1	2/1	2/1	2/1
	Audio in / out	■/■	■/■	■/■	■/■
	Hybrid / public view monitor	■/■	■/■	■/■	■/■
Housing	Weather rating	IP66 and NEMA type 4X	IP66 and NEMA type 4X	IP66 and NEMA type 4X	IP66 and NEMA type 4X
	Vandal resistant	IK10	IK10	IK10	IK10
	Operating temperature	-30° to 50° C (-22° to 122° F)	-30° to 50° C (-22° to 122° F)	-30° to 50° C (-22° to 122° F)	-30° to 50° C (-22° to 122° F)
Power input voltage	Power over Ethernet/12V/24V	■/■/–	■/■/–	■/■/–	■/■/–

**IP Video**

## Dome Cameras

## ►FLEXIDOME IP starlight 8000i



■ Available – Not available

Commercial Type Number	NDE-8502-R(T)	NDE-8503-R(T)	NDE-8504-R
Remote commissioning	■ Motorized pan/tilt/roll/zoom (PTRZ) with wireless support	■	■
Video analytics at the edge	- Essential Video Analytics ■ Intelligent Video Analytics	-	-
Bitrate management	■ Intelligent Dynamic Noise Reduction ■ Intelligent streaming ■ Compression (H.265 / H.264 & MJPEG) / multi-streaming	■ ■/■/4 streams	■ ■/■/4 streams
Basic features	Maximum resolution HD 1080p Image sensor type 1/2.8" Max. frames per second (fps) 60 Indoor / outdoor ■/■ Day / night ■ Wide Dynamic Range (WDR) 134dB HDR ONVIF conformant ■ Built-in microphone -	6MP 1/1.8" 30 ■/■ ■ 120dB HDR	4K ultra HD 1/1.8" 30 ■/■ ■ 120dB HDR
Advanced features	■ Intelligent Auto Exposure / Intelligent Defog ■ Privacy masking ■ Region Of Interest tracking ■ Upright video mode	■/■ ■ ■ ■	■/■ ■ ■ ■
Alarm triggering	Tamper detection / Video motion detection ■/■ Built-in video analytics ■ Audio detection ■	■/■ ■ ■	■/■ ■ ■
Sensitivity	Minimum illumination day mode (color) 0.007 lux (R) / 0.013 lux (RT) Minimum illumination night mode (black/white) 0.0011 lux (R) / 0.0031 lux (RT) Night vision ■ (starlight) Max. range at night (IR range) -	0.040 lux (R) / 0.084 lux (RT) 0.0059 lux (R) / 0.0135 lux (RT) ■ (starlight) -	0.041 lux 0.0072 lux ■ (starlight) -
Lens	Automatic varifocal ■ Focal length 3 - 9 mm (R) / 10 - 23 mm (RT) Horizontal Angle of View (HAoV) 37° - 117° (R) / 14.4° - 32° (RT)	3.9 - 10 mm (R) / 12 - 40 mm (RT) 44° - 117° (R) / 36° - 12.6° (RT)	3.9 - 10 mm 44° - 117°
DORI distances	Detect / Observe / Recognize / Identify (m) (Distances according to EN-IEC 62676-4 standard) 24-115/9-46/5-23/2-12 134-304/53-121/27-61/13-30	40-162/16-64/8-32/4-16 201-591/80-235/40-118/20-59"	47-190/19-75/9-38/5-19
Storage	Industrial SD card support with health monitoring ■ (2 slots) Cloud application storage Auto or Alarm JPEG Posting, Video Clips or JPEG Exporting	■ (2 slots) Auto or Alarm JPEG Posting, Video Clips or JPEG Exporting	■ (2 slots) Auto or Alarm JPEG Posting, Video Clips or JPEG Exporting
Connections	Alarm input / output 2/1 Audio in / out ■/■ Hybrid / public view monitor -	2/1 ■/■ -	2/1 ■/■ -
Housing	Weather rating IP66 and NEMA type 4X Vandal resistant IK10+ Operating temperature -50° C to +60° C (-58° F to +140° F)	IP66 and NEMA type 4X IK10+ -50° C to +60° C (-58° F to +140° F)	IP66 and NEMA type 4X IK10+ -50° C to +60° C (-58° F to +140° F)
Power input voltage	Power over Ethernet/12V/24V ■/■/■	■/■/■	■/■/■
Accessories	Modular mount compatible ■	■	■

## IP Video

### Dome Cameras

►FLEXIDOME IP panoramic 5000 MP



►FLEXIDOME IP panoramic 5000 MP



■ Available – Not available

Commercial Type Number		NUC-52051-F0	NUC-52051-F0E
Video analytics at the edge	Essential Video Analytics Intelligent Video Analytics	– –	– –
Bitrate management	Intelligent Dynamic Noise Reduction Intelligent streaming Compression (H.265 / H.264 & MJPEG) / multi-streaming	■ ■ –/■/4 streams	■ ■ –/■/4 streams
Basic features	Maximum resolution Image sensor type Max. frames per second (fps) Indoor / outdoor Day / night Wide Dynamic Range (WDR) ONVIF conformant Built-in microphone	5MP 1/3" 15 fps ■/- ■ (electronic) 81dB ■ ■ –	5MP 1/3" 15 fps ■/ ■ (electronic) 81dB ■ –
Advanced features	Intelligent Auto Exposure / Intelligent Defog Edge dewarping Privacy masking Region Of Interest tracking	–/■ – ■ –	–/■ – ■ –
Alarm triggering	Tamper detection / Video motion detection Built-in video analytics Audio detection PTZ Intelligent Tracking	■/■ – ■ –	■/■ – – –
Sensitivity	Minimum illumination day mode (color) Minimum illumination night mode (black/white) Night vision Max. range at night	0.36 lux 0.12 lux – –	0.36 lux 0.12 lux – –
Lens	Focal length Horizontal Angle of View (HAoV)	1.19 mm 360°	1.19 mm 360°
DORI distances	Detect / Observe / Recognize / Identify (Distances according to EN-IEC 62676-4 standard)	19/7/4/1	19/7/4/1
Storage	Industrial SD card support with health monitoring Cloud application storage	■ Auto or Alarm JPEG Posting, Video Clips or JPEG Exporting	■ Auto or Alarm JPEG Posting, Video Clips or JPEG Exporting
Connections	Alarm input / output Audio in / out Hybrid / public view monitor	– – –	– – –
Housing	Weather rating Vandal resistant Operating temperature	– IK4 –20° C to +50° C (-4° F to 104° F)	IP66 IK10 –30° C to +50° C (-22° F to 122° F)
Power input voltage	Power over Ethernet/12V/24V	■/■/-	■/■/-

**IP Video**

## Dome Cameras

►FLEXIDOME IP panoramic 7000 MP



►FLEXIDOME IP panoramic 7000 IC



■ Available – Not available

Commercial Type Number		NIN-70122-Fx(A)	NFN-70122-Fx(A)
Video analytics at the edge	Essential Video Analytics Intelligent Video Analytics	■ (depending on model) ■ (depending on model)	■ 6000 model ■ 7000 model
Bitrate management	Intelligent Dynamic Noise Reduction Intelligent streaming Compression (H.265 / H.264 & MJPEG) / multi-streaming	■ ■ -/-/4 streams	■ ■ -/-/4 streams
Basic features	Maximum resolution Image sensor type Max. frames per second (fps) Indoor / outdoor Day / night Wide Dynamic Range (WDR) ONVIF conformant Built-in microphone	12MP 1/2.3" 30 fps ■/- ■ 92dB (with IAE + 16dB) ■ ■	12MP 1/2.3" 30 fps ■/- ■ 92dB (with IAE + 16dB) ■ -
Advanced features	Intelligent Auto Exposure / Intelligent Defog Edge dewarping Privacy masking Region Of Interest tracking	■ (customized region)/■ ■ ■ ■	■ (customized region)/■ ■ ■ ■
Alarm triggering	Tamper detection / Video motion detection Built-in video analytics Audio detection PTZ Intelligent Tracking	■/- ■ ■ ■	■/- ■ ■ ■
Sensitivity	Minimum illumination day mode (color) Minimum illumination night mode (black/white) Night vision Max. range at night	0.46 lux (F1) 0.55 lux (F0)  0.15 lux (F1) 0.18 lux (F0)  – –	0.46 lux (F1) 0.55 lux (F0)  0.15 lux (F1) 0.18 lux (F0)  – –
Lens	Focal length Horizontal Angle of View (HAoV)	1.6 mm (F1) 2.1 mm (F0)  180° (F1) 360° (F0)	1.6 mm (F1) 2.1 mm (F0)  180° (F1) 360° (F0)
DORI distances	Detect / Observe / Recognize / Identify (Distances according to EN-IEC 62676-4 standard)	19/12/6.5/3.5 (F1) 19/8.5/4.5/2 (F0)	19/12/6.5/3.5 (F1) 19/8.5/4.5/2 (F0)
Storage	Industrial SD card support with health monitoring Cloud application storage	■ Auto or Alarm JPEG Posting, Best Face Detection JPEG posting (IVA models only), Video Clips or JPEG Exporting	■ Auto or Alarm JPEG Posting, Best Face Detection JPEG posting (IVA models only), Video Clips or JPEG Exporting
Connections	Alarm input / output Audio in / out Hybrid / public view monitor	– – –	– – –
Housing	Weather rating Vandal resistant Operating temperature	– IK6 -20° C to +40° C (-4° F to 104° F)	– IK6 -20° C to +40° C (-4° F to 104° F)
Power input voltage	Power over Ethernet/12V/24V	■/-	■/-

## IP Video

### Fixed Cameras

►DINION IP 5000 HD



►DINION IP 5000 MP



■ Available – Not available

Commercial Type Number		NBN-50022-xxx	NBN-50051-xxx
Video analytics at the edge	Essential Video Analytics Intelligent Video Analytics	– –	– –
Bitrate management	Intelligent Dynamic Noise Reduction Intelligent streaming Compression (H.265 / H.264 & MJPEG) / multi-streaming	■ ■ –/■/4 streams	■ ■ –/■/4 streams
Basic features	Maximum resolution Image sensor type Max. frames per second (fps) Indoor / outdoor Day / night Wide Dynamic Range (WDR) ONVIF conformant Built-in microphone	HD 1080p 1/2.7" 30 fps@ 1080p ■/■ (with housing) 76dB ■ – ■ ■/■ (with housing)	5MP 1/3" 12 fps@ 5MP ■/■ (with housing) 81dB ■ – ■ ■/■ (with housing)
Advanced features	Intelligent Auto Exposure / Intelligent Defog Privacy masking Region Of Interest tracking	–/■ ■ –	–/– ■ –
Alarm triggering	Tamper detection / Video motion detection Built-in video analytics Audio detection	■/■ – ■	■/■ – ■
Sensitivity	Minimum illumination day mode (color) Minimum illumination night mode (black/white) Night vision Max. range at night	0.25 lux 0.05 lux – –	0.35 lux 0.05 lux – –
Lens	Automatic Back Focus (ABF) Automatic varifocal Focal length Horizontal Angle of View (HAoV)	– – 3.3 - 12 mm (V3)/CS mount 34° - 110° (V3)	– – 3.3 - 12 mm (V3)/CS mount 25° - 82° (V3)
DORI distances	Detect / Observe / Recognize / Identify (Distances according to EN-IEC 62676-4 standard)	27-125/11-50/5-25/3-13 (V3)	60-234/24-93/12-47/6-23 (V3)
Storage	Industrial SD card support with health monitoring Cloud application storage	■ Auto or Alarm JPEG Posting, Video Clips or JPEG Exporting	■ Auto or Alarm JPEG Posting, Video Clips or JPEG Exporting
Connections	Alarm input / output Audio in / out Hybrid / public view monitor	1/1 ■/■ ■/■	1/1 ■/■ ■/■
Housing	Weather rating Vandal resistant Operating temperature	– – –30° to 50° C (-22° to 122° F)	– – –30° to 50° C (-22° to 122° F)
Power input voltage	Power over Ethernet/12V/24V	■/■/–	■/■/–

## IP Video

### Fixed Cameras

►DINION IP 4000i IR



►DINION IP 5000i IR



►DINION IP starlight 6000i IR



■ Available – Not available

Commercial Type Number	NBE-4502-AL	NBE-5503-AL	NBE-6502-AL
Video analytics at the edge	■ Essential Video Analytics – Intelligent Video Analytics	■ –	■ –
Bitrate management	■ Intelligent Dynamic Noise Reduction ■ Intelligent streaming – Compression (H.265 / H.264 & MJPEG) / multi-streaming	■ ■ –/■/4 streams	■ ■ ■/■/4 streams
Basic features	Maximum resolution HD 1080p Image sensor type 1/2.9" Max. frames per second (fps) 30 fps@ 1080p Indoor / outdoor ■/■ Day / night ■ Wide Dynamic Range (WDR) 85dB ONVIF conformant ■ Built-in microphone – Power over Ethernet (PoE) ■	5MP 1/2.9" 30 fps@ 5MP ■/■ ■ 120dB ■ – ■	HD 1080p 1/2.8" 60 fps@ 1080p ■/■ ■ 134dB ■ – ■
Advanced features	Intelligent Auto Exposure / Intelligent Defog –/■ Privacy masking ■ Region Of Interest tracking ■ Upright video mode ■	■/■ ■ ■ ■	■/■ ■ ■ ■
Alarm triggering	Tamper detection / Video motion detection ■/■ Built-in video analytics ■ Audio detection ■	■/■ ■ ■	■/■ ■ ■
Sensitivity	Minimum illumination day mode (color) 0.052 lux Minimum illumination night mode (black/white) 0 lux (IR on) Night vision ■ (infrared) Max. range at night 60 m (196 ft)	0.369 lux Olux (IR on) ■ (Infrared) 50 m (164 ft)	0.0225 lux Olux (IR on) ■ (Infrared) 60 m (196 ft)
Lens	Automatic Back Focus (ABF) – Automatic varifocal ■ Focal length 2.8 - 12 mm Horizontal Angle of View (HAoV) 33° - 100°	– ■ 2.7 - 12 mm 28° - 95°	– ■ 2.8 - 12 mm 33° - 100°
DORI distances	Detect / Observe / Recognize / Identify (Distances according to EN-IEC 62676-4 standard) 33-130/13-51/6-26/3-13	56-246/22-98/11-49/6-25	33-130/13-51/6-26/3-13
Storage	Industrial SD card support with health monitoring ■ Cloud application storage Auto or Alarm JPEG Posting, Video Clips or JPEG Exporting	■ Auto or Alarm JPEG Posting, Video Clips or JPEG Exporting	■ Auto or Alarm JPEG Posting, Video Clips or JPEG Exporting
Connections	Alarm input / output 1/1 Audio in / out ■/■ Hybrid / public view monitor ■/■	1 / 1 ■/■ ■/■	1 / 1 ■/■ ■/■
Housing	Weather rating IP67 Vandal resistant IK10 Operating temperature –40° to 60° C (-40° to 140° F)	IP67 IK10 –40° to 60° C (-40° to 140° F)	IP67 IK10 –40° to 60° C (-40° to 140° F)
Power input voltage	Power over Ethernet/12V/24V ■/■/■	■/■/■	■/■/■

\* The hybrid functionality offers an easy migration path from legacy CCTV to a modern IP-based system

\*\* The NTI-50022-A3S model has a pre-mounted Surface Mount Box

## IP Video

### Fixed Cameras

	►DINION IP starlight 6000 HD	►DINION IP starlight 7000 HD	►DINION IP starlight 6000 HD	►DINION IP starlight 7000 HD
				
■ Available – Not available				
Commercial Type Number	NBN-63013-B **	NBN-73013-BA **	NBN-63023-B **	NBN-73023-BA **
Video analytics at the edge	■ Essential Video Analytics – Intelligent Video Analytics	– ■ Intelligent Dynamic Noise Reduction ■ Intelligent streaming – Compression (H.265 / H.264 & MJPEG) / multi-streaming	■ ■ Intelligent Dynamic Noise Reduction – Intelligent streaming – Compression (H.265 / H.264 & MJPEG) / multi-streaming	– ■ Intelligent Dynamic Noise Reduction – Intelligent streaming – Compression (H.265 / H.264 & MJPEG) / multi-streaming
Bitrate management	– Intelligent Dynamic Noise Reduction ■ Intelligent streaming	■ ■ Intelligent Dynamic Noise Reduction – Intelligent streaming	– ■ Intelligent Dynamic Noise Reduction – Intelligent streaming	– ■ Intelligent Dynamic Noise Reduction – Intelligent streaming
Basic features	Maximum resolution Image sensor type Max. frames per second (fps) Indoor / outdoor Day / night Wide Dynamic Range (WDR) ONVIF conformant Built-in microphone	720p 1/2.8" 60 fps @ 720p ■/■(with housing) ■ 120dB ■ 120dB	720p 1/2.8" 60 fps @ 720p ■/■(with housing) ■ 120dB ■ 120dB	1.3MP / 1080p 1/2.8" 60 fps @ 1.3MP / 1080p ■/■(with housing) ■ 120dB ■ 120dB
Advanced features	Intelligent Auto Exposure / Intelligent Defog Privacy masking Region Of Interest tracking Upright video mode	■/■ ■ ■ ■	■/■ ■ ■ ■	■/■ ■ ■ ■
Alarm triggering	Tamper detection / Video motion detection Built-in video analytics Audio detection	■/■ ■ ■	■/■ ■ ■	■/■ ■ ■
Sensitivity	Minimum illumination day mode (color) Minimum illumination night mode (black / white) Night vision Max. range at night	0.0069 lux 0.0008 lux ■ (starlight) –	0.0069 lux 0.0008 lux ■ (starlight) –	0.0069 lux 0.0008 lux ■ (starlight) –
Lens	Automatic Back Focus (ABF) Automatic varifocal Focal length Horizontal Angle of View (HAoV)	■ – Lenses available separately C/CS mount 1.8 - 3 mm, 3.8 - 13 mm, 9 - 40 mm depending on optional lens	■ – Lenses available separately C/CS mount 1.8 - 3 mm, 3.8 - 13 mm, 9 - 40 mm depending on optional lens	■ – Lenses available separately C/CS mount 1.8 - 3 mm, 3.8 - 13 mm, 9 - 40 mm depending on optional lens
DORI distances	Detect / Observe / Recognize / Identify (Distances in according to EN-IEC 62676-4 standard)	depending on optional lens	depending on optional lens	depending on optional lens
Storage	Industrial SD card support with health monitoring Cloud application storage	■ Auto or Alarm JPEG Posting, Video Clips or JPEG Exporting	■ Auto or Alarm JPEG Posting, Video Clips or JPEG Exporting	■ Auto or Alarm JPEG Posting, Video Clips or JPEG Exporting
Connections	Alarm input / output Audio in / out Hybrid / public view monitor	2/1 ■/■ ■/■	2/1 ■/■ ■/■	2/1 ■/■ ■/■
Housing	Weather rating Vandal resistant Operating temperature	depending on optional housing depending on optional housing -30° to 50° C (-22° to 122° F)	depending on optional housing depending on optional housing -30° to 50° C (-22° to 122° F)	depending on optional housing depending on optional housing -30° to 50° C (-22° to 122° F)
Power input voltage	Power over Ethernet/12V/24V	■/■/-	■/■/-	■/■/-

\*\*Lens not included

**IP Video**

## Fixed Cameras

►DINION IP starlight 8000 MP



►DINION IP ultra 8000 MP



■ Available – Not available

Commercial Type Number		NBN-80052-BA**	NBN-80122-CA**
Video analytics at the edge	Essential Video Analytics Intelligent Video Analytics	– ■	– ■
Bitrate management	Intelligent Dynamic Noise Reduction Intelligent streaming Compression (H.265 / H.264 & MJPEG) / multi-streaming	■ ■ – –/■/4 streams	■ ■ ■ –/■/4 streams
Basic features	Maximum resolution Image sensor type Max. frames per second (fps) Indoor / outdoor Day / night Wide Dynamic Range (WDR) ONVIF conformant Built-in microphone Power over Ethernet (PoE)	5 MP (16:9)/5.5 MP (4:3) 1/1.8" 30 fps@ 5 MP ■/■ (with housing) ■ 97dB (5MP)/105dB (1080p) (with IAE + 16dB)	12 MP (4:3)/UHD (16:9) 1/2.3" 20 fps@ 12MP, 30 fps@ UHD ■/■ (with housing) ■ 92dB (with IAE + 16dB)
Advanced features	Intelligent Auto Exposure / Intelligent Defog Privacy masking Region Of Interest tracking	■/■ ■ ■	■/■ ■ ■
Alarm triggering	Tamper detection / Video motion detection Built-in video analytics Audio detection	■/■ ■ ■	■/■ ■ ■
Sensitivity	Minimum illumination day mode (color) Minimum illumination night mode (black/white) Night vision Max. range at night	0.0121 lux (5 MP) 0.0083 lux (1080p) 0.004 lux (5 MP) 0.0028 lux (1080p) ■ (starlight) –	0.11 lux 0.037 lux – –
Lens	Automatic Back Focus (ABF) Automatic varifocal Focal length	– – C/CS mount 4.1-9 mm/12.5-50 mm	C/CS mount - 35 mm/50 mm/75 mm fixed iris P-iris lens 4-13 mm
DORI distances	Horizontal Angle of View (HAoV) Detect / Observe / Recognize / Identify (Distances according to EN-IEC 62676-4 standard)	Depending on optional lens Depending on optional lens	Depending on optional lens Depending on optional lens
Storage	Industrial SD card support with health monitoring Cloud application storage	■ Auto or Alarm JPEG Posting, Best Face Detection JPEG posting (IVA models only), Video Clips or JPEG Exporting	■ Auto or Alarm JPEG Posting, Best Face Detection JPEG posting (IVA models only), Video Clips or JPEG Exporting
Connections	Alarm input / output Audio in / out Hybrid / public view monitor	2/1 ■/■ ■/■	2/1 ■/■ ■/■
Housing	Weather rating Vandal resistant Operating temperature	– – -20° to 50° C (-4° to 122° F)	– – -20° to 50° C (-4° to 122° F)
Power input voltage	Power over Ethernet/12V/24V	■/■/-	■/■/-

\*\* lens not included

## IP Video

### Specialty Cameras

►DINION IP imager 9000 HD



►FLEXIDOME IP corner 9000 MP



■ Available – Not available

		NAI-90022-AAA	NCN-90022-F1
Video analytics at the edge	Essential Video Analytics Intelligent Video Analytics	– ■	– –
Bitrate management	Intelligent Dynamic Noise Reduction Intelligent streaming Compression (H.265 / H.264 & MJPEG) / multi-streaming	■ ■ –/■/4 streams	■ ■ –/■/4 streams
Basic features	Maximum resolution Image sensor type Max. frames per second (fps) Indoor / outdoor Day / night Wide Dynamic Range (WDR) ONVIF conformant Built-in microphone	HD 1080p 1/2.7" 30 fps@ 1080p –/■ ■ 76dB (with IAE +16dB) – –	1080p 1/2.7" 30 fps@ 1080p ■/– ■ 76dB – –
Advanced features	Intelligent Auto Exposure / Intelligent Defog Privacy masking Region Of Interest tracking	■/– ■ ■	–/■ ■ –
Alarm triggering	Tamper detection / Video motion detection Built-in video analytics Audio detection	■/■ ■ ■	■/■ – ■
Sensitivity	Minimum illumination day mode (color) Minimum illumination night mode (black/white) Night vision Max. range at night	0.4 lux 0 lux (IR on) ■ (infrared) 120 m (394 ft)	0.3 lux 0 lux (IR on) ■ (infrared) 9 m (30 ft)
Lens	Automatic Back Focus (ABF) Automatic varifocal Focal length Horizontal Angle of View (HAoV)	■ ■ 10 - 23 mm 14.8° - 34°	– – 2 mm 121°
DORI distances	Detect / Observe / Recognize / Identify (Distances according to EN-IEC 62676-4 standard)	126-296/50-117/25-59/13-30	20/8/4/2
Storage	Industrial SD card support with health monitoring Cloud application storage	■ Auto or Alarm JPEG Posting, Best Face Detection JPEG posting, Video Clips or JPEG Exporting	■ Auto or Alarm JPEG Posting, Video Clips or JPEG Exporting
Connections	Alarm input / output Audio in / out Hybrid / public view monitor	1/1 ■/■ ■/■	1/1 ■/■ –/–
Housing	Weather rating Vandal resistant Operating temperature	IP66 IK10 –40° to 50° C (-40° to 122° F)	IP65 IK10 –10° to 50° C (14° to 122° F)
Power input voltage	Power over Ethernet/12V/24V	■ (HiPoE)/■/■	■/■

**IP Video**

## Specialty Cameras

►DINION IP thermal 8000



QVGA

►DINION IP thermal 8000



VGA

■ Available – Not available

Commercial Type Number		NHT-8000-F	NHT-8001-F
Video analytics at the edge	Essential Video Analytics	–	–
	Intelligent Video Analytics	■	■
Bitrate management	Intelligent Dynamic Noise Reduction	–	–
	Intelligent streaming	■	■
	Compression (H.265 / H.264 & MJPEG) / multi-streaming	-/■/4 streams	-/■/4 streams
Basic features	Maximum resolution	QVGA	VGA
	Image sensor type	Un-cooled vanadium oxide microbolometer	Un-cooled vanadium oxide microbolometer
	Max. frames per second (fps)	9 fps (-FxxQS) or 60 fps (-FxxQF)	9 fps (-FxxVS) or 30 fps (-FxxVF)
	Indoor / outdoor	■/■	■/■
	Day / night	–	–
	Wide Dynamic Range (WDR)	–	–
	ONVIF conformant	■	■
	Built-in microphone	–	–
Advanced features	Intelligent Auto Exposure / Intelligent Defog	-/-	-/-
	Privacy masking	Eight independent areas, fully programmable	Eight independent areas, fully programmable
	Region Of Interest tracking	–	–
Alarm triggering	Tamper detection / Video motion detection	■/■	■/■
	Built-in video analytics	■	■
	Audio detection	■	■
Sensitivity	Minimum illumination day mode (color)	–	–
	Minimum illumination night mode (black/white)	0 lux	0 lux
	Night vision	■ (thermal)	■ (thermal)
	Max. range at night	–	–
Lens	Automatic Back Focus (ABF)	–	–
	Automatic varifocal	–	–
	Focal length	7.5 mm (-F07Qx), 19 mm (-F19Qx)	9 mm (-F09Vx), 16.7 mm (-F17Vx), 35 mm (-F35Vx), 65 mm (-F65Vx)
	Horizontal Angle of View (HAoV)	7.5 mm: 41.8°, 19 mm: 16°	9 mm: 70°, 16.7 mm: 37.5°, 35 mm: 17.6°, 65 mm: 9.6°
DRI distances	Detection / Recognition / Identification	7.5 mm: 140 m (459 ft) / 35 m (115 ft) / 18 m (59 ft) 19 mm: 380 m (1247 ft) / 95 m (312 ft) / 48 m (157 ft)	9 mm: 155 m (509ft) / 40 m (131 ft) / 20 m (66 ft) 16.7 mm: 315 m (1033 ft) / 80 m (262 ft) / 40 m (131 ft) 35 mm: 690 m (2264 ft) / 170 m (558 ft) / 85 m (279 ft) 65 mm: 1270 m (4167 ft) / 320 m (1050 ft) / 160 m (525 ft)
Storage	Industrial SD card support with health monitoring	■	■
	Cloud application storage	Auto or Alarm JPEG Posting (FTP only)	Auto or Alarm JPEG Posting (FTP only)
Connections	Alarm input / output	2/1	2/1
	Audio in / out	■/■	■/■
	Hybrid / public view monitor	■	■
Housing	Weather rating	IP66	IP66
	Vandal resistant	–	–
	Operating temperature	-50° to 55° C (-58° to 131° F)	-50° to 55° C (-58° to 131° F)
Power input voltage	Power over Ethernet/12V/24V	-/-■	-/-■

## IP Video

### Moving Cameras



■ Available – Not available

		AUTODOME IP 4000i	AUTODOME IP 5000i	AUTODOME IP 5000i IR
<b>Commercial Type Number</b>		NDP-4502-Z12C	NDP-4502-Z12	NDP-5502-Z30C
Video analytics at the edge	Essential Video Analytics	■	■	■
	Intelligent Video Analytics	–	–	–
Bitrate management	Intelligent Dynamic Noise Reduction	■	■	■
	Intelligent streaming	■	■	■
	Compression (H.265 / H.264 & MJPEG) /multi-streaming	■/■/4 streams	■/■/4 streams	■/■/4 streams
Basic features	Maximum resolution	HD 1080p	HD 1080p	HD 1080p
	Image sensor type	1/2.8" CMOS	1/2.8" CMOS	1/2.8" CMOS
	Max. frames per second (fps)	60 fps@ 1080p	60 fps@ 1080p	60 fps@ 1080p
	Indoor / outdoor	■/-	■/-	■/-
	Day / night	■	■	■
	Wide Dynamic Range (WDR)	94dB	94dB	94dB
	ONVIF conformant	■	■	■
	Built-in microphone	–	–	–
Advanced features	Intelligent Auto Exposure / Intelligent Defog	–/■	–/■	–/■
	Privacy masking	■	■	■
	Nbr of presets/guard tours	256/2	256/2	256/2
	Wiper	–	–	–
Alarm triggering	Tamper detection / Video motion detection	■/■	■/■	■/■
	Built-in video analytics	■	■	■
	Audio detection	■	■	■
	PTZ Intelligent Tracking	–	–	–
Sensitivity	Minimum illumination day mode (color)	0.05 lux	0.05 lux	0.05 lux
	Minimum illumination night mode (black/white)	0.01 lux	0.01 lux	0.01 lux
	Night vision	–	–	–
	Max. range at night	–	–	–
Lens	Focal length	5.3 - 64 mm	5.3 - 64 mm	4.5 - 135 mm
	Horizontal Angle of View (HAoV)	4.9° to 58.5°	4.9° to 58.5°	2.4° to 60.9°
	PTZ Zoom optical/digital	12x/16x	12x/16x	30x/16x
	Tilt angle	-90° to 0°	-90° to 0°	-90° to 0°
DORI distances	Detect / Observe / Recognize / Identify (Distances according to EN-IEC 62676-4 standard)	69-897/27-356/14-179/7-90	69-897/27-356/14-179/7-90	65-1833/26-727/13-367/7-183
Storage	Industrial SD card support with health monitoring	■	■	■
	Cloud application storage	Auto or Alarm JPEG Posting, Video Clips or JPEG Exporting	Auto or Alarm JPEG Posting, Video Clips or JPEG Exporting	Auto or Alarm JPEG Posting, Video Clips or JPEG Exporting
Connections	Alarm input / output	2/1	2/1	2/1
	Audio in / out	■/■	■/■	■/■
	Hybrid / public view monitor	–/–	–/–	–/–
Housing	Weather rating	IP51	IP65	IP51
	Vandal resistant	IK6	IK10	IK6
	Operating temperature	-10° to 55° C (14° to 131° F)	-10° to 55° C (14° to 131° F)	-10° to 60° C (14° to 140° F)
Power input voltage	Power over Ethernet/12V/24Vac	■ (PoE+)/–/■	■ (PoE+)/–/■	■ (PoE+)/–/■

**IP Video**

## Moving Cameras

►AUTODOME IP starlight 5000i



Inceiling

►AUTODOME IP starlight 5000i IR



■ Available – Not available

Commercial Type Number	NDP-5512-Z30C	NPD-5512-Z30	NDP-5512-Z30L
Video analytics at the edge	■ Essential Video Analytics – Intelligent Video Analytics	■ –	■ –
Bitrate management	■ Intelligent Dynamic Noise Reduction ■ Intelligent streaming ■ Compression (H.265 / H.264 & MJPEG) / multi-streaming	■ ■ ■/■/4 streams	■ ■ ■/■/4 streams
Basic features	Maximum resolution HD 1080p Image sensor type 1/2.8" CMOS Max. frames per second (fps) 60 fps@ 1080p Indoor / outdoor ■/- Day / night ■ Wide Dynamic Range (WDR) 120dB ONVIF conformant ■ Built-in microphone –	HD 1080p 1/2.8" CMOS 60 fps@ 1080p ■/- ■ 120dB ■ –	HD 1080p 1/2.8" CMOS 60 fps@ 1080p ■/- ■ 120dB ■ –
Advanced features	■ Intelligent Auto Exposure / Intelligent Defog ■ Privacy masking Nbr of presets/guard tours 256/2 Wiper –	■/■ ■ 256/2 –	■/■ ■ 256/2 –
Alarm triggering	■ Tamper detection / Video motion detection ■ Built-in video analytics ■ Audio detection ■ PTZ Intelligent Tracking	■/■ ■ ■ –	■/■ ■ ■ –
Sensitivity	Minimum illumination day mode (color) 0.0186 lux Minimum illumination night mode (black/white) 0.004 lux Night vision – Max. range at night –	0.0186 lux 0.004 lux – –	0.0186 lux 0.004 lux – –
Lens	Focal length 4.5 - 135 mm Horizontal Angle of View (HAoV) 2.4° to 60.9° PTZ Zoom optical/digital 30x/16x Tilt angle -90° to 0°	4.5 - 135 mm 2.4° to 60.9° 30x/16x -90° to 0°	4.5 - 135 mm 2.4° to 60.9° 30x/16x -90° to 3°
DORI distances	Detect / Observe / Recognize / Identify (Distances according to EN-IEC 62676-4 standard)	65-1833/26-727/13-367/7183	65-1833/26-727/13-367/7183
Storage	Industrial SD card support with health monitoring Cloud application storage	■ Auto or Alarm JPEG Posting, Video Clips or JPEG Exporting	■ Auto or Alarm JPEG Posting, Video Clips or JPEG Exporting
Connections	Alarm input / output 2/1 Audio in / out ■/■ Hybrid / public view monitor –/-	2/1 ■/■ –/-	2/1 ■/■ –/-
Housing	Weather rating IP55 Vandal resistant IK06 Operating temperature -10° to 60° C (14° F to 140° F)	IP55 IK06 -10° to 60° C (14° F to 140° F)	IP66 IK10 -40° to 60° C (-40° F to 140° F)
Power input voltage	Power over Ethernet/12V/24Vac ■ (PoE+)/–/■	(PoE+)/–/■	■ (PoE+)/–/■

## IP Video

### Moving Cameras

►AUTODOME IP starlight 7000 HD



■ Available – Not available

Commercial Type Number	VG5-7230
Video analytics at the edge	Essential Video Analytics Intelligent Video Analytics
Bitrate management	Intelligent Dynamic Noise Reduction Intelligent streaming Compression (H.265 / H.264 & MJPEG) / multi-streaming
Basic features	Maximum resolution Image sensor type Max. frames per second (fps) Indoor / outdoor Day / night Wide Dynamic Range (WDR) ONVIF conformant Built-in microphone
Advanced features	Intelligent Auto Exposure / Intelligent Defog Privacy masking Nbr of presets/guard tours Wiper Intelligent Tracking
Alarm triggering	Tamper detection / Video motion detection Built-in video analytics Audio detection PTZ Intelligent Tracking
Sensitivity	Minimum illumination day mode (color) Minimum illumination night mode (black/white) Night vision Max. range at night
Lens	Focal length Horizontal Angle of View (HAoV) PTZ Zoom optical/digital Tilt angle
DORI distances	Detect / Observe / Recognize / Identify (Distances according to EN-IEC 62676-4 standard)
Storage	Industrial SD card support with health monitoring Cloud application storage
Connections	Alarm input / output Audio in / out Hybrid / public view monitor
Housing	Weather rating Vandal resistant Operating temperature
Power input voltage	Power over Ethernet/12V/24V

## IP Video

### Moving Cameras

► MIC IP starlight 7000i



■ Available – Not available

Commercial Type Number		MIC7502-Z30x
Video analytics at the edge	Essential Video Analytics	–
	Intelligent Video Analytics	■
Bitrate management	Intelligent Dynamic Noise Reduction	■
	Intelligent streaming	■
	Compression (H.265 / H.264 & MJPEG) / multi-streaming	■/■/4 streams
Basic features	Maximum resolution	HD 1080p
	Image sensor type	1/2.8"
	Max. frames per second (fps)	60 fps@ 1080p
	Indoor / outdoor	–/■
	Day / night	■
	Wide Dynamic Range (WDR)	120dB
	ONVIF conformant	■
Advanced features	Intelligent Auto Exposure / Intelligent Defog	–/■
	Privacy masking	■
	Nbr of presets/guard tours	256/2
	Wiper	■
	Intelligent Tracking	■
Alarm triggering	Tamper detection / Video motion detection	■/■
	Built-in video analytics	■
	Audio detection	■ (with VJC-7000-90)
	PTZ Intelligent Tracking	■
Sensitivity	Minimum illumination day mode (color)	0.0077 lux
	Minimum illumination night mode (black/white)	0.0008 lux
	Night vision	■ (optional illuminator)
	Max. range at night	450 m (1476 ft)
Lens	Focal length	4.3 - 129 mm
	Horizontal Angle of View (HAoV)	2.3° to 63.7°
	PTZ Zoom optical/digital	30x/12x
	Tilt angle	-58° to 90° (upright), -90° to 90° (canted)
DORI distances	Detect / Observe / Recognize / Identify (Distances according to EN-IEC 62676-4 standard)	62-1913/25-759/12-383/6-191
Storage	Memory card slot	■ (up to 32 GB) (with VJC-7000-90)
	Cloud application storage	Auto or Alarm JPEG Posting, Video Clips or JPEG Exporting
Connections	Alarm input / output	5/3 (with MIC-ALM-WAS-24)
	Audio in / out	■/- (with VJC-7000-90)
	Hybrid / public view monitor	■ (with external decoder)/-
Housing	Weather rating	IP68
	Vandal resistant	IK10
	Operating temperature	-40° to 65° C (-40° F to 149° F)
Power input voltage	Power over Ethernet/12V/24V	■ (PoE++)/-■

## IP Video

### Moving Cameras

#### ► MIC IP fusion 9000i



■ Available – Not available

		<b>MIC-9502-Z30xxx</b>
Video analytics at the edge	Essential Video Analytics	–
	Intelligent Video Analytics	■ (Thermal and Optical)
Bitrate management	Intelligent Dynamic Noise Reduction	■
	Intelligent streaming	■
	Compression (H.265 / H.264 & MJPEG) / multi-streaming	■/4 streams (optical + thermal)
Basic features	Maximum resolution	HD 1080p (optical) / 320/640 pixel (thermal)
	Image sensor type	1/2 8" CMPS (optical) / Un-cooled microbolometer (thermal)
	Max. frames per second (fps)	60 fps@ 1080p (optical) <9/30 fps w/640 pixel (thermal) <9/60 fps w/320 pixel (thermal)
	Indoor / outdoor	–/■
	Day / night	■ (optical)
	Wide Dynamic Range (WDR)	120dB
	ONVIF conformant	■
Advanced features	Intelligent Auto Exposure / Intelligent Defog	–/■
	Privacy masking	■
	Nbr of presets/guard tours	256/2
	Wiper	■
Alarm triggering	Tamper detection / Video motion detection	■/■
	Built-in video analytics	■
	Audio detection	■
	PTZ Intelligent Tracking	■
Sensitivity	Minimum illumination day mode (color)	0.0077 lux (optical) N.A. (thermal)
	Minimum illumination night mode (black/white)	0.0008 lux (optical) 0 lux (thermal)
	Night vision	■ (thermal)
	Max. range at night	300 m (971 ft) (optical) 1540m (5050 ft) w/320 pixel (thermal) 3550m (11,600 ft) w/640 pixel (thermal)
Lens	Focal length	4.3 - 129 mm (optical), 19 mm w/320 pixel (thermal) 50 mm w/640 pixel (thermal)
	Horizontal Angle of View (HAoV)	2.3° to 63.7° (optical) 16° w/320 pixel, 12.4° w/640 pixel (thermal)
	PTZ Zoom optical/digital	30x/12x
	Tilt angle	-56° tp +90° (upright), -90° to +56° (inverted)
DORI distances	Detect / Observe / Recognize / Identify (Distances according to EN-IEC 62676-4 standard)	62-1913/25-765/12-383/6-191
Storage	Internal storage	■ (16 GB)
	Cloud application storage	Auto or Alarm JPEG Posting, Video Clips or JPEG Exporting
Connections	Alarm input / output	5/3 (with MIC-ALM-WAS-24)
	Audio in / out	■/■
	Hybrid / public view monitor	–
Housing	Weather rating	IP68
	Vandal resistant	IK10
	Operating temperature	-40° to 65° C (-40° F to 149° F)
Power input voltage	Power over Ethernet/12V/24V	■ (HiPoE)/–/■

\*\* IP features are possible when using optional MIC-IP-PSU Power Supply

**IP Video**

## Digital Recording

**All-in-one solution**

## ►DIVAR IP all-in-one 5000



## ►DIVAR IP all-in-one 7000 2U



## ►DIVAR IP all-in-one 7000 3U



■ Available – Not available

Commercial Type Number	DIP-524xxx-xxx	DIP-728x-xxx	DIP-72Gx-xxx
Basic functions			
Max. system size (channels)	42	128	128
Integrated video management	■	■	■
RAID Level	–	RAID-5, RAID-6	RAID-5, RAID-6
Supported resolutions	CIF/2CIF/4CIF/720p/1080p/5MP/UHD	CIF/2CIF/4CIF/720p/1080p/5MP/UHD	CIF/2CIF/4CIF/720p/1080p/5MP/UHD
Video compression	H.264, H.265, MPEG-4, ONVIF, RTSP, JPEG	H.264, H.265, MPEG-4, ONVIF, RTSP, JPEG	H.264, H.265, MPEG-4, ONVIF, RTSP, JPEG
Transcoding	■	■	■
ONVIF	■	■	■
Mechanical			
Form factor	4-bay Mini-Tower	2U 19-inch Rack Mount	3U 19-inch Rack Mount
Network connections (LAN)	2x Gigabit Ethernet	2x Gigabit Ethernet, 1x 100Mbit (Mgmt)	2x Gigabit Ethernet, 1x 100Mbit (Mgmt)
USB ports	4x USB	4x USB 2.0, 2x USB 3.0	4x USB 2.0, 2x USB 3.0
Number of power supplies	1	2	2
Power supplies hot swappable	–	■	■
Video output			
Connector type	1 HDMI2.0, 1 DP, 1 DVI-D (GPU models: 4x mini-DP)	VGA (optional: 4x mini-DP)	VGA (optional: 4x mini-DP)
Monitor output	3 (GPU-models: 4)	optional: 4x via local mini-DP	optional: 4x via local mini-DP
Audio			
In/out channels	42	128	128
Compression type	G.726	G.726	G.726
Synchronous audio	■	■	■
Associate multiple cameras to 1 Audio	■	■	■
Recording			
Video Recording Manager (VRM)	■	■	■
Schedule recording modes	■	■	■
Storage options			
Max. drives supported	4	8	16
Available capacities per drive	4, 8 or 12 TB	4,8 or 12 TB	4, 8 or 12 TB
Base system capacity TB	0, 16, 32 or 48 TB	0, 32, 64 or 96 TB	0, 64, 128 or 192 TB
Max. Base system capacity TB	48 TB	96 TB	192 TB
Full system capacity TB	144 TB	864 TB	960 TB
Extenable/external support	iSCSI	iSCSI	iSCSI
Storage extensions			
Max. number of units	2x DIVAR IP all-in-one 5000 configured as storage extension	4x DIVAR IP all-in-one 7000 configured as storage extension	4x DIVAR IP all-in-one 7000 configured as storage extension
Maximum drives supported	4	8	16
Available capacities per drive	0, 16, 32 or 48 TB	4, 8 or 12 TB	4, 8 or 12 TB
Hot swappable	–	■	■
Export/back-up of data			
Data format	native, MOV, ASF	native, MOV, ASF	native, MOV, ASF
Built-in DVD writer	–	■	■
Supported devices	External CD/DVD Writer, USB 2.0, USB 3.0, iSCSI	USB 2.0, USB 3.0, iSCSI, internal CD/DVD Writer	USB 2.0, USB 3.0, iSCSI, internal CD/DVD Writer
Back-up mode	Manual or Automatic	Manual or Automatic	Manual or Automatic

## IP Video

### Digital Recording

#### All-in-one solution

► DIVAR IP all-in-one 5000



► DIVAR IP all-in-one 7000 2U



► DIVAR IP all-in-one 7000 3U



■ Available – Not available

Commercial Type Number	DIP-524xxx-xxx	DIP-728x-xxx	DIP-72Gx-xxx
Redundancy	Power supply redundancy Hot swappable HDD	–	■ ■
Software options	PTZ control CCTV keyboard support Admin control Export options	■ ■ ■ ■	■ ■ ■ ■
Remote access	Mobile device (smart phone/tablet) Network Web browser access Simultaneous accessible users	■ Video security app 10/100/1000 Ethernet ■ 4	■ Video security app 10/100/1000 Ethernet ■ 4
Advanced features support	Forensic search support (metadata) Webclient	■ ■	■ ■
Supported software	Bosch Video Client Bosch Video Management System 3rd Party software	– ■ (v9.0 or newer) –	– ■ (v9.0 or newer) –
3rd party integration tools	Optional ATM/POS integration SDK (IPP*)	■ ■	■

\* Integration Partner Program (IPP) for more information visit <http://ipp.boschsecurity.com>

## IP Video

### Digital Storage

#### Network Video Recorder

##### ►DSA E-Series



■ Available – Not available

Commercial Type Number	DSA-N6xxxx-xxxx
Basic functions	
Max. system size (channels)	800
Integrated video management	–
RAID Level	RAID-5/RAID-6/DDP
Supported resolutions	CIF/2CIF/4CIF/720p/1080p/5MP
Video compression	H.264, H.265, MPEG-4, ONVIF, RTSP, JPEG
Transcoding	–
ONVIF	■
Mechanical	
Form factor	2U/4U 19-inch Rack Mount
Network connections (LAN)	2x Gigabit Ethernet/ 2x 10 Gigabit Ethernet
USB ports	–
Number of power supplies	2
Power supplies hot swappable	■
Video output	
Connector type	–
Monitor output	–
Audio	
In/out channels	800 (audio playback via remote station only)
Compression type	G.726
Synchronous audio	■
Associate multiple cameras to 1 Audio	■
Recording	
Video Recording Manager (VRM)	–
Schedule recording modes	■
Storage options	
Max. drives supported	12/60
Available capacities per drive	4,8 or 12 TB
Base system capacity TB	–
Max. Base system capacity TB	12 bay: 48/96/144 TB 60 bay: 240/480/720 TB
Full system capacity TB	12 bay: 384/768/1152 TB 60 bay: 720/1440/2160 TB
Extenable/external support	6Gb/s SAS (Copper)
Storage extention	
Max. number of units	12 bay: 7 / 60 bay: 3
Maximum drives supported	12/60 **
Available capacities per drive	4,8 or 12 TB
Hot swappable	■
Export/back-up of data	
Data format	WMF, Bosch ASF
Built-in DVD writer	–
Supported devices	External CD/DVD Writer, USB 2.0, iSCSI
Back-up mode	manual or automatic
Redundancy	
Power supply redundancy	■
Hot swappable HDD	■

Table continued on the next page

## IP Video

### Digital Storage

#### Network Video Recorder

##### ►DSA E-Series



■ Available – Not available

Commercial Type Number		DSA-N6xxxx-xxxx
Redundancy	Power supply redundancy	—
	Hot swappable HDD	—
Software options	PTZ control	—
	CCTV keyboard support	—
	Admin control	—
	Export options	—
Remote access	Mobile device (smart phone/tablet)	—
	Network	2x 10 Gigabit Ethernet
	Web browser access	—
	Simultaneous accessible users	—
Advanced features support	Forensic search support (metadata)	—
	Webclient	■
Supported software	Bosch Video Client	—
	Bosch Video Management System	—
	3rd Party software	—
3rd party integration tools	Optional ATM/POS integration	—
	SDK (IPP*)	—

\* Integration Partner Program (IPP) for more information visit [www.boschsecurity.com](http://www.boschsecurity.com)

**IP Video**  
Digital Storage



■ Available – Not available

Commercial Type Number		DDN-2516-xxxxxx	DDN-3532-xxxxxx	DRN-5532-xxxxxx
Basic functions	Max. system size	16	32	32
	Alarm Inputs/Outputs	4 / 2	4 / 2	16 / 6
	RAID Level	–	–	RAID-1, RAID-5
	Supported resolutions	up to 8MP	up to 12MP	up to 12MP
	Video compression	H.264, H.265, MPEG-4	H.264, H.265, MPEG-4	H.264, H.265, MPEG-4
	Transcoding	–	–	–
	Bosch IP native camera integration	■	■	■
	ONVIF	■	■	■
Mechanical	Form factor	1U high Desktop	1U high Desktop	1.5U high Rack Mount
	Network connections (LAN)	2x Gigabit Ethernet	2x Gigabit Ethernet	2x Gigabit Ethernet
	Build-in PoE+	0, 8 or 16 PoE+	0 or 16 PoE+	0 or 16 PoE+
	USB ports	1x USB 2.0, 1xUSB 3.0	1x USB 2.0, 1xUSB 3.0	1x USB 2.0, 2xUSB 3.0
Video output	Connector type	VGA, HDMI	VGA, HDMI	VGA, HDMI
	Spotmonitor	–	–	■ (HDMI)
Audio	In/out channels	16 in / 1 out	32 in / 1 out	32 in / 1 out
	Compression type	G.726	G.726	G.726
	Synchronous audio	■	■	■
	Associate multiple cameras to 1 Audio	–	–	–
Storage options	Max. drives supported	2	2	4
	Available capacities per drive	1, 2, 3, 4 or 6TB	1, 2, 3, 4 or 6TB	1, 2, 3, 4 or 6TB
	Base system capacity TB	0, 2 TB	0, 2 TB	0, 4 TB
	Max. Base system capacity TB	12 TB	12 TB	24 TB
	Full system capacity TB	12 TB	12 TB	24 TB
	Extenable/external support	–	–	eSATA
Storage extention	Max. number of units	–	–	1
	Maximum drives supported	–	–	1
	Available capacities per drive	1, 2, 3, 4 or 6TB	1, 2, 3, 4 or 6TB	1, 2, 3, 4 or 6TB
	Hot swappable	–	–	–
Export/back-up of data	Data format	native, ASF	native, ASF	native, ASF
	Built-in DVD writer	■ (optional)	■ (optional)	■ (optional)
	Supported devices	USB 2.0, USB 3.0, internal DVD Writer	USB 2.0, USB 3.0, internal DVD Writer	USB 2.0, USB 3.0, eSata, internal DVD Writer
	Back-up mode	manual or automatic	manual or automatic	manual or automatic
Redundancy	Power suply redundancy	–	–	–
	Hot swappable HDD	–	–	–
Software options	PTZ control	■	■	■
	CCTV keyboard support	–	–	■
	Admin control	■	■	■
	Export options	■	■	■

Table continued on the next page

## IP Video

### Digital Storage

#### Network Video Recorder

►DIVAR network 2000

►DIVAR network 3000

►DIVAR network 5000



■ Available – Not available

Commercial Type Number	DDN-2516-xxxxxx	DDN-3532-xxxxxx	DRN-5532-xxxxxx
Remote access	Mobile device (smart phone) ■ Mobile Viewer app	10/100/1000 Ethernet ■	10/100/1000 Ethernet ■
	Network	10/100/1000 Ethernet	10/100/1000 Ethernet
	Web browser access	■	■
	Simultaneous accessible users	128 (4 advised)	128 (4 advised)
Advanced features support	Forensic search support (metadata) Webclient ■	— ■	— ■
Supported software	Bosch Video Client ■	■	■
	Bosch Video Management System ■	■	■
	3rd Party software —	—	—
3rd party integration tools	Optional ATM/POS integration SDK (IPP*) Bosch Video Management System ■	— — ■	— — ■
	3rd Party software —	—	—

\* Integration Partner Program (IPP) for more information visit <http://ipp.boschsecurity.com>

## IP Video

### Digital Storage

#### Hybrid Network Video Recorder

►DIVAR hybrid 3000

►DIVAR hybrid 5000



■ Available – Not available

Commercial Type Number	DDH-3532-xxxx00	DRH-5532-xxxxxx
Basic functions	Max. system size 16 analog + 16IP or 32IP	16 analog + 16IP or 32IP ■
	Looping AN Video —	16 / 6 RAID-1, RAID-5
	Alarm Inputs/Outputs 16 / 3	up to 12MP up to 960H
	RAID Level —	up to 12MP up to 960H
	Supported resolutions IP cameras up to 12MP	H.264, H.265, MPEG-4 H.264, H.265, MPEG-4
	Supported resolutions AN cameras up to 960H	— —
	Video compression H.264, H.265, MPEG-4	— —
	Transcoding —	— —
	Bosch IP native camera integration ■	■ ■
	ONVIF ■	■ ■
Mechanical	Form factor 1U high Desktop	1.5U high Rack Mount
	Network connections (LAN) 2x Gigabit Ethernet	2x Gigabit Ethernet
	Build-in PoE+ —	—
	USB ports 1x USB 2.0, 2xUSB 3.0	1x USB 2.0, 2xUSB 3.0
Video output	Connector type VGA, HDMI ■ (HDMI)	VGA, HDMI ■ (HDMI)
	Spotmonitor ■ (HDMI)	■ (HDMI)

Table continued on the next page

**IP Video**

## Digital Storage

**Hybrid Network Video Recorder**

►DIVAR hybrid 3000

►DIVAR hybrid 5000



■ Available – Not available

Commercial Type Number	DDH-3532-xxxx00	DRH-5532-xxxxxx
Audio	In/out channels IP cameras 32 in Compression type IP camera G.726 In/out channels recorder 4 in / 1 out Compression type recorder G711a Synchronous audio ■ Associate multiple cameras to 1 Audio –	32 in G.726 4 in / 1 out G711a ■ –
Storage options	Max. drives supported 2 Available capacities per drive 1, 2, 3, 4 or 6TB Base system capacity TB 0, 2 TB Max. Base system capacity TB 12 TB Full system capacity TB 12 TB Extenable/external support –	32 in G.726 4 in / 1 out G711a ■ –
Storage extenions	Max. number of units – Maximum drives supported – Available capacities per drive 1, 2, 3, 4 or 6TB Hot swappable –	1 1 1, 2, 3, 4 or 6TB –
Export/back-up of data	Data format native, ASF Built-in DVD writer ■ (optional) Supported devices USB 2.0, USB 3.0, internal DVD Writer Back-up mode manual or automatic	native, ASF ■ (optional) USB 2.0, USB 3.0, eSata, internal DVD Writer manual or automatic
Redundancy	Power suply redundancy – Hot swappable HDD –	– –
Software options	PTZ control ■ CCTV keyboard support – Admin control ■ Export options ■	■ – ■ –
Remote access	Mobile device (smart phone) ■ Mobile Viewer app Network 10/100/1000 Ethernet Web browser access ■ Simultaneous accessible users 128 (4 advised)	■ Mobile Viewer app 10/100/1000 Ethernet ■ 128 (4 advised)
Advanced features support	Forensic search support (metadata) – Webclient ■	– ■
Supported software	Bosch Video Client ■ Bosch Video Management Systems ■ 3rd Party software –	■ ■ –
3rd party integration tools	SDK (IPP*) –	–

\* Integration Partner Program (IPP) for more information visit <http://ipp.boschsecurity.com>

## IP Video

### Video Software

#### ► Video Management System



■ Available – Not available

Name	BVMS Viewer	BVMS Professional	BVMS Enterprise
System features			
Included cameras (max cameras)	16 (500)	8 (2000)	200.000
Maximum number of clients	1	100	100
Maximum number of Bosch Video Management System (VMS) servers	1	1	10/30
Maximum number of Bosch Video Recording Manager (VRM) servers	32**	125	1.250
Maximum storage capacity	n.a.	125 x 2PB	1.250 x 2PB
Forensic search	■	■	■
DVR support	■	■	■
Events and alarms	–	■	■
Streamlining	–	■	■
Remote access	–	■	■
Dynamic transcoding	■	■*	■*
Web client	–	■	n.a.
Bosch Mobile Video Client App support	–	■	n.a.
Keyboard support	–	■	■
Maps	–	■	■
Audio support	–	■	■
Bosch VMS Config Wizard	–	■	n.a.
Live & Playback sites	■**	9.999	9.999
Supported camera devices			
Bosch panoramic cameras	■	■	■
Bosch UHD cameras	■	■	■
Bosch HD cameras	■	■	■
Bosch SD / VGA cameras	■	■	■
Third party ONVIF Profile S cameras	■	■	■
Redundancy			
Automatic Network Replenishment (ANR)	–	■	■
VMware® vSphere/ Microsoft Hyper-V Virtualization support	–	■	■
VMware® vSphere High Availability support	–	■	■
Microsoft Hyper-V Failover Cluster and Hyper-V Replica support	–	■	■
Failover Video Recording Manager (VRM)	–	■	■
Dual Recording	–	■	■
Alarm management			
Logbook	–	■	■
Events and alarms	–	■	■
Email notification	–	■	■
SMS notification	–	■	■
Alarm-based recording	n.a.	■	■
Motion recording	n.a.	■	■
Video Analytics events	–	■	■
SNMP support	–	■	■
Workflow with instructions on alarm	–	■	■
Integration			
Maximum number of Bosch B/G Series intrusion panels	–	20	200
I/O module support	–	■	■
Active directory connectivity	■	■	■
ATM-POS support	–	■	■
Additional data	–	■	■
Software Development Kit (SDK)	–	■	■

\* additional hardware required

\*\* limited

## IP Video

### Viewing Software

	►Video Security App	►Video Security Client	►Advanced Viewing Client
■ Available – Not available			
Name	<b>Video Security App</b>	<b>Video Security Client</b>	<b>Bosch Video Client (BVC)</b>
No. of channels	16	Up to 16	32 per site
Usage situation	Mobile	PC and Mobile	PC
Workstation OS support	iOS, Android	Win7, Win8.1, Win10	Win7, Win8.1, Win10
Software based Video IP Platform	■	■	■
Multi-site Support (independent systems tied together)	–	–	–
Multi-site Support (dispersed system recording, cameras, remote independent client)	–	–	–
Key technologies supported	Dynamic Transcoding Video analytics Client side dewarping (panoramic) 4K ultra HD starlight	■ ■ ■ ■	■ ■ ■ ■
Encoding	H.264 MPEG-4 3rd party camera support	■ ■ ■ (with VSG)	■ ■ ■ (with VSG)
Viewing	Multi-monitor support 16:9 monitor support Viewing frequency Dynamic cameo scaling	– n/a – ■	– – – ■
Alarm Management	User management Digital I/O alarms System event alarms Motion alarms Event response and command scripts Video analytics alarms Video analytics forensic search	– – – – – – ■ (Simple search)	– – – – – – ■ (Simple search)
Control	AUTODOME Intelligent Tracking PTZ IntuiKey Virtual matrix	■ ■ – –	■ ■ ■ (limited functionality) –
Storage	@edge camera support iSCSI NVR support VRM Video analytics metadata Support redundant storage DLA Support (VRM Mode)	■ ■ – ■ ■ – ■	■ ■ – ■ (via DIVAR IP) – ■ (1)
Integration	BRS DxR 400/600/700 Virtual inputs	– – –	– ■ ■

## IP Video

### Encoders

#### ►VIDEOJET multi 4000



■ Available – Not available

Commercial Type Number		VJM-4016
	Description	16 Channel H.264 Video Encoder
Video/Audio	Camera Inputs	16
	Video Codec	H.264 High Profile
	Max. frames per second (fps)	25/30@4CIF
	Audio in / out	2/1
	Transcoding at the edge	–
Intelligence	Direct-to-iSCSI	■
	Video Analytics	Motion+
Interfaces	Alarm In	4
	Relay Out	1
	ONVIF conformant	■

## IP Video

### Decoders

#### ►VIDEOJET decoder 3000



#### ►VIDEOJET decoder 7000



■ Available – Not available

Commercial Type Number		VJD-3000	VJD-7513
	Description	Single/Quad-stream Decoder	High performance H.265 UHD decoder
Video/Audio	Monitor Outputs	1 of 2 (HDMI, CVBS)	2 (HDMI, DP via USB-C)
	Video Codec	H.264 M-JPEG, JPEG	H.265, H.264, MPEG-4, MPEG-2
	Max. frames per second (fps)	30@1080p (single view) 60@720p (single view) 4x 25/30@4CIF (quad view)	4x 30@UHD 10x 60@1080p 18x 60@720p 28x 60@432p
	Audio in / out	1/1	via HDMI
	Transcoding at the edge	–	–
Interfaces	Alarm In	4	–
	Relay Out	1	–
	ONVIF conformant	–	–
Other	Keyboard	■	supported for IP Matrix
	IP Matrix	■	■

**IP Video**

## Transcoders

Transcoder/network &amp; alarm interface device

►VIDEOJET connect 7000



■ Available – Not available

Commercial Type Number		VJC-7000-90
Description		5 Channel network switch/Single-stream Transcoder
Video/Audio	Camera Inputs	4
	Video Codec	H.264 High Profile
	Max. frames per second (fps)	25/30@4CIF
	Audio in / out	1/-
	Transcoding at the edge	■
Storage	Type	CF
	Capacity	2 TB
Intelligence	Direct-to-iSCSI	-
	Video Analytics	-
Interfaces	Alarm In	4 dry contacts, 2 monitored tamper alarm (With MIC IP 7000)
	Alarm Out	3
	Relay Out	1 (for washer pump) (with MIC IP 7000)
	Network (PoE)	1x 10/100/1000Base-TX
	Network UTP	2x 10/100/1000Base-TX
	Network fiber	2 SFP Sockets (1000Base-FX)
	Network daisy chain	■ (up to 50)
Other	Output power	95W HiPoe
	Washer pump control	■ (relay)
	Support for daisy-chaining of multiple cameras	■

## IP Video

### Flat Panel Monitors

#### ►High Definition



■ Available – Not available

Commercial Type Number	UML-193-90	UML-223-90	UML-274-90	UML-324-90	UML-434-90	UML-554-90
Display	Type	19" LED	22" LED	27" LED	32" LED	43" LED
	Max Pixel Resolution	1366 x 768	1920 x 1080	1920 x 1080	1920 x 1080	3840x2160
	Aspect Ratio	16:9	16:9	16:9	16:9	16:9
	Brightness (cd/m <sup>2</sup> )	250	250	350	500	400
	Contrast Ratio	1000:1	1000:1	3000:1	3000:1	3000:1
	Backlight	30,000 hours	30,000 hours	30,000 hours	50,000 hours	50,000 hours
PC Compatible	Viewing Angle (HxV)	170° x 160°	170° x 160°	178° x 178°	178° x 178°	178° x 178°
	■	■	■	■	■	■
	Composite Video (BNC)	–	–	Na	Na	Na
	VGA	■	■	■	■	■
	DVI-D	■	■	■	■	■
	HDMI	■	■	■	■	■
Audio	Display Port			■	■	■
	Input	■	■	■	■	■
	Speaker	■	■	■	■	■
	Width	448 mm	515 mm	633,6 mm	747,9 mm	978,3 mm
	Height	332 mm*	370 mm*	371,8 mm	431,5 mm	568,8 mm
	Depth	182 mm*	182 mm*	64,8 mm	71,5 mm	74,7 mm
Power	Weight	3.0 kg	3.6 kg	6,8 kg	11.6 kg	18,6 kg
	Power Supply	integrated	integrated	integrated	integrated	integrated
	Power Consumption	42W	42W	50W	60W	75W
	Picture-in-picture	–	–	Na	Na	Na
	Front Panel Lockout	■	■	Na	Na	Na
	IR Remote	–	–	■	■	■
Cables Included	VGA-to-VGA	■	■	■	■	■
	HDMI-to-HDMI			■	■	■
	DVI-to-DVI	■	■	Na	Na	Na
	DP-to-DP			■	■	■
	DP-to-MiniDP converter			■	■	■
Mounting	VESA Compliant	■	■	■	■	■
	Rack-mountable	–	–	Na	Na	Na
	Fixed desktop stand	–	–	within box	within box	within box
	Adjustable desktop stand	■	■	UMM-LED27-SD	NA	NA
	Fixed Wall Mount	–	–	NA	NA	ST650
	Swivel/Tilt Wall Mount	–	–	UMM-LW-30B	UMM-WMT-32	NA

## **Bosch Security and Safety Systems**

Protecting lives, buildings and assets is our aim. Our product portfolio includes video security, intrusion detection, fire detection and voice evacuation systems as well as access control and management systems. Professional audio and conference systems for communications of voice, sound and music complete the range.

## **Bosch Security and Safety Systems**

To learn more about Video Systems  
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VS-EH-en-55\_F01U560825\_27

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