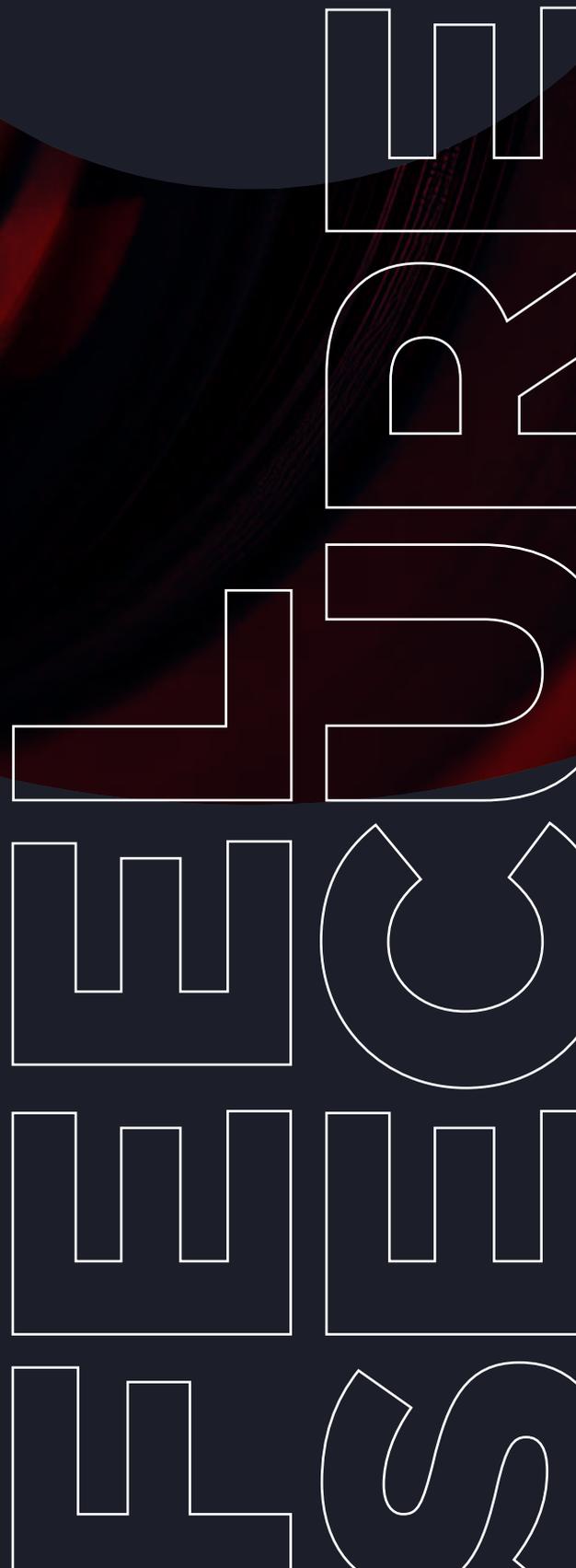




General  
Catalogue  
**Video surveillance**





# REFERENCE GUIDE

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# Comelit.

ITALY

FRANCE

SPAIN

GERMANY

SINGAPORE

HONG KONG

INDONESIA

VIETNAM

UNITED KINGDOM

IRELAND

NETHERLANDS

BELGIUM

USA

UNITED ARAB EMIRATES

**A GROUP OF  
1000 PEOPLE  
DRIVEN BY  
THE SAME  
SPIRIT.**

Since **1956**, we have been making history in the door-entry phone and door entry monitor sector and have actively contributed to its **ongoing** development. Over the years, the experience gained in this specific sector when it comes to meeting installation requirements, such as simplicity, **reliability** and multiple functions, has allowed us to grow and make a name for ourselves as an **international benchmark company**.



Our **values** and our business **vision** are the foundation upon which we have developed a well-run, well-structured **global** organisation, with 10 branch offices, 7 Research and Development centres, more than 1000 employees and a commercial presence in over 90 countries.

In addition to video door entry systems, we design and build anti-intrusion, video surveillance, home automation, fire protection and access control systems, which makes us a **single partner specialising** in **protecting** people and their environment.

DESIGN  
MILANO

CSQ  
ISO 14001  
CERTIFIED  
COMPANY

# WITH YOU. ALWAYS.

Our promise, our commitment.



## INSPECTIONS

ON-SITE TECHNICAL AND COMMERCIAL INSPECTIONS



## COMMISSIONING

IS FREE FOR ALL SYSTEMS



## CONSULTANCY

FREE CONSULTING FOR DESIGNING SPECIFIC PROJECTS



## WARRANTY

(3 YEARS) AND, FOR THE FIRST YEAR, ASSISTANCE IS PAID FOR BY COMELIT



## TELEPHONE SUPPORT

MONDAY TO FRIDAY, 08:30-18:00



## COURSES

PROFESSIONAL REFRESHER COURSES ALSO AVAILABLE ONLINE AND ON DEMAND



Being **close** to those who choose Comelit for their customers is our daily commitment. Our commitment is demonstrated by the fact that we are constantly researching and developing new, **solutions that are easy** to install and offer high performance levels and offer daily advice and **assistance** on the phone and on site, as well as extremely reliable products and systems of the highest quality, supporting you step by step in your work. With You. Always. Because **your success is our success**, and your satisfied customers are our satisfied customers

# MYCOMELIT APP

## The App you won't be able to do without!

Simple, straightforward and customised.

Thanks to all the services provided, MyComelit makes work easier for all industry professionals: installers, draughtsmen, system integrators, security managers, building managers, wholesalers and architects.



# myCOMELIT®

YOU WILL NOT BE ABLE TO DO WITHOUT IT!



GET IT ON Google Play | Download on the App Store

WHAT ARE YOU WAITING FOR?

ENTER THE WORLD OF MYCOMELIT!

# AN INTERNATIONAL MODEL OF SUSTAINABILITY AND RESPONSIBILITY

## Ecovadis Gold Medal

Comelit has reached an important milestone in its ongoing commitment to the environment, labor, human rights, ethics and **sustainable development**.

This recognition was conferred by **EcoVadis**, a prestigious international agency specialising in evaluating performance in **Corporate Social Responsibility (CSR)** using high benchmarks.

It is important to emphasise that this is not an end point, but rather a further step on the path of **continuous improvement**. We are proud to share this news with you and continue to work hard to promote **sustainability, ethics** and **corporate social responsibility** in all our activities.



An achievement that tangibly underlines the ongoing commitment of Comelit in helping to create more sustainable, responsible and inclusive futures.

# HORUS: INTEGRATED SECURITY BY COMELIT

## The software that simplifies your work.

A **supervision** platform with **graphic maps** which allows the integrated management of all security systems: intruder alarm, fire detection, video surveillance and video entry.

An eye that sees everything, capable of instantly indicating any kind of emergency in order to reduce the time and cost of any necessary response. A real revolution in the security industry, it can also be used by operators who do not possess specialist technical skills, thanks to its **simple and intuitive interface**.

It is particularly suitable for monitoring the security systems used in large-scale complexes, such as manufacturing sites, supermarkets, large companies, shopping centres and office blocks.



**INSTANT INTERVENTION IN THE EVENT OF FIRE**



**TOTAL PROTECTION FOR THE AREAS COVERED**



**CONSTANT SYSTEM MONITORING**



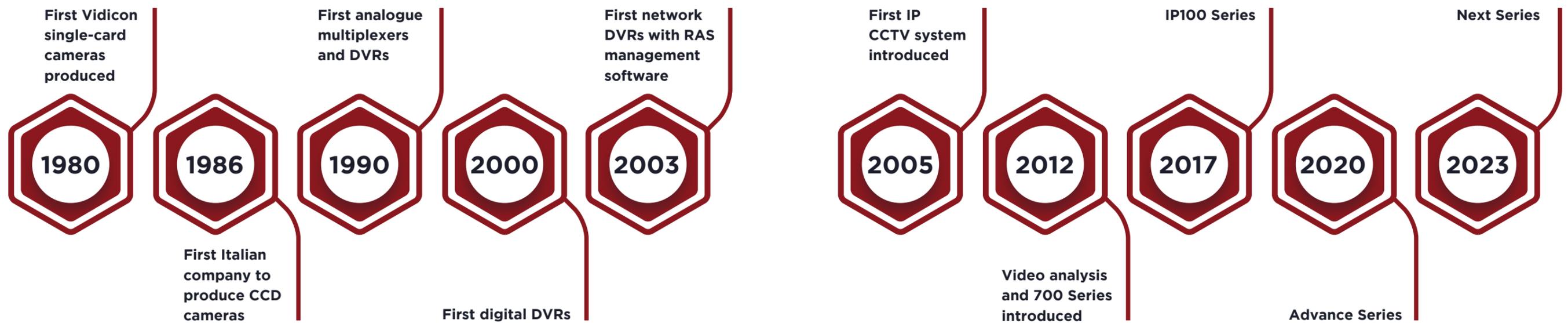
**CENTRALISED AND REMOTE MANAGEMENT OF VIDEO ENTRY PHONE CALLS**



# FOR THE LAST 40 YEARS

**The company has been an international leader in the professional video surveillance market.**

The video surveillance market is constantly growing, with demand increasing from different segments: from residential and small commercial concerns to large-scale industry and public monitoring. In line with this development trend, we at Comelit are committed to a constant and tireless quest for quality and reliability when it comes to our products, guaranteeing increasingly thorough and precise protection capable of preventing the phenomenon of small criminal acts and vandalism – unfortunately on the rise – before we even get to the events linked to terrorism.



# FROM THE CHOICE OF MATERIALS TO PRODUCTION TECHNOLOGIES:

## Comelit quality is under control.

The **quality** of a product is the result of a process that is organised at every stage and subject to the most thorough procedures and in-depth tests. This pearl of wisdom has resulted in our decision to invest constantly in the most **advanced production technologies** and the most sophisticated testing equipment. We operate according to **strict quality parameters** which are constantly monitored. In production we use high-quality components and raw materials: from the **scratch-resistant, anti-glare** glass to the furnace-painted **die-cast aluminium** body. Our in-house laboratory carries out quality tests on product durability in climatic chambers with extreme temperatures, as well as **functional tests** and end-of-cycle checks before shipping. Further checks are carried out by **certified external laboratories**. Our products are subjected to over **1,000 approval tests**, at hardware and software level.



### Electromagnetic compatibility tests

#### Emissions

- Conducted
- Radiated

#### Immunity

- ESD
- Burst
- Surge
- Conducted

### Environmental tests

#### Waterproof (IP rating)

#### Vandalproof (IK rating)

#### Neutral Salt Spray (NSS)

#### Thermal cycles in climatic chamber

- High-temperature operating tests
- Low-temperature operating tests
- Thermal shock operating tests

#### Cycles with high humidity in climatic chamber

#### Sunlight

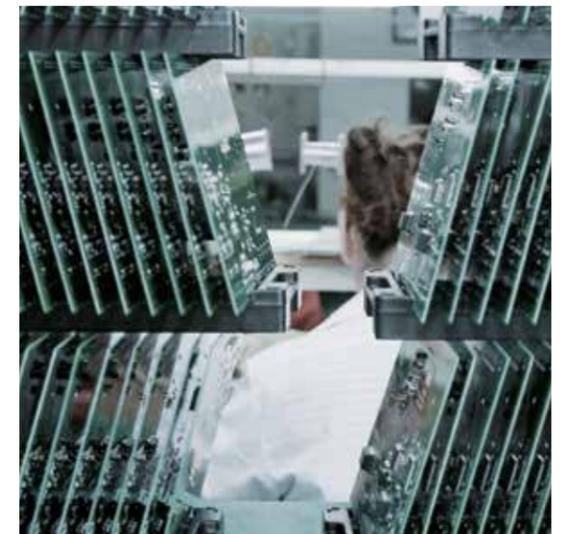
### Mechanical tests

#### Vibration

#### Dropped package

#### Scratch resistance

#### Labelling durability



# CCTV & CYBER SECURITY

## Our commitment to guaranteeing your data.

Is your data really safe? What could happen to the millions of bits of data flowing through servers? Who is responsible for their safety? These are the questions you should ask yourself before choosing a video surveillance system.



We now live in an age that can be defined as 'the age of data'. In fact, now more than ever, technological advances have made it possible for us to have virtually infinite volumes of data of different kinds and from multiple devices at our disposal. By analysing and processing these data, we can obtain information that allows us to predict both our own behaviour and that of others.

It is for this reason that **cybersecurity** and the **protection of sensitive data** have become very important and topical issues that are causing growing **concern** among companies and individual citizens. Not surprisingly, since 2018, the number of global cyber attacks has **risen by 81%**, targeting individuals and, above all, in many cases paralyzing entire financial institutions, television broadcasters, private companies, public institutions, and basic services such as post offices, airports, and stations.



Infrastructure security, whether public or private, largely relies on **video surveillance systems**.

Until just a few years ago, any violation of their protocols could have resulted in incredibly serious consequences. Therefore, ensuring safety and protection against cyber attacks has become the **'new normal'**: this is what the market demands. This is the reason why all key players - including us - are committed to developing and adopting **increasingly effective countermeasures** that involve introducing sophisticated firmware, shields and protocols in order to raise our standards when it comes to cyber security standards.

However, if we actually want to talk about how secure the data and video feeds of each and every one of us, whether as individuals and citizens or consumers, there is one question that needs to be answered clearly and transparently: **can a manufacturer truly guarantee reliability and security?**

As we all know, a number of countries worldwide have **banned** several video surveillance system manufacturers from selling in their markets. One of these countries is the **USA** which, in 2018, with the approval of the federal **NDAA** - signed by Trump and subsequently confirmed by Biden - **prohibits** federal agencies and their contractors from using and purchasing telecommunications and video surveillance equipment and components made by leading global manufacturers, including brands that are very well-known even in Italy.

This is a critical issue which, however, **does not affect us at Comelit in any way**. It is quite the opposite. **We are Italian**, and we are a private, non state-owned company. **We have no obligations to anyone**, except for our shareholders. Consequently, we have **no interest in or obligation to share the data** flowing through our servers.

But there is more. Although it is clear by now that virtually all video surveillance technology is 'made in China' - as is the smartphone we carry in our pocket or the PC on our desk -, we can guarantee that our systems feature components that are not **on any country's blacklist**.

In addition, our server-cloud infrastructure for data transfer and storage is based in Europe, **owned by us** and operated in **partnership with the world's largest cloud provider, Amazon AWS**, which has a 36% market share. Our servers in Frankfurt, Germany, are protected by state-of-the-art cyber security systems, and not only are they not accessible to anyone for any reason whatsoever, but they are also continuously backed up.

For us at Comelit, being able to make sure your data and videos are always completely safe is not only **a source of pride but also an ethical commitment**. Such a guarantee should not be an optional requirement, but a sacred right of all.

**WE ARE NOT PART OF THE PROBLEM.**  
**WE ARE AN ITALIAN COMPANY**  
**THAT IS NOT STATE OWNED, AND WE**  
**HAVE NO INTEREST OR OBLIGATION**  
**IN TRANSMITTING THE DATA**  
**WE COLLECT.**



Comelit products use a proprietary protocol and we have our own servers, which are located in Europe. Moreover, they are fully ONVIF compliant, which means that full compatibility with other manufacturers' products is ensured.

# OUR CLOUD CCTV SERVICE: NOW SAFER THAN EVER.



The **trust** of our customers forms the base of Comelit's business and we know that **you trust us** to protect your most critical and sensitive resource: **your data**. Our cameras and video recorders use special firmware to ensure the utmost care when it comes to **cyber security** and **data protection**. Comelit products use encrypted communication protocols, Telnet port locking, encrypted configuration files, storage data encryption and backup.

But is this enough to ensure cyber security and data protection? **We have taken it a step further!** **We have further** increased the security of our customers' data using the infrastructure and cloud services of **Amazon Web Services (AWS)**, the most comprehensive and secure cloud platform currently available. Thanks to the use of AWS cloud services, Comelit video surveillance solutions offer **the highest standards** in terms of resilience, cyber security and the protection of sensitive and personal data in compliance with European privacy regulations. The infrastructure, based on the use of highly reliable and scalable serverless technologies, is systematically subject to:



- Vulnerability Assessment for the detection of security holes in software, its dependencies, and network configurations
- Monitoring with Artificial Intelligence tools that use pattern recognition algorithms to detect fraudulent behaviour and attacks
- Monitoring through tools that use Machine Learning and pattern matching to identify sensitive data and protect its privacy and security by enforcing security best practices
- Intelligent Threat Detection tool with transport layer DDoS attack protection (Ivl 4 ISO OSI)

**DATA IS ARCHIVED IN EUROPE AND WE OBSERVE EU REGULATIONS CONCERNING PRIVACY, PORTABILITY AND DATA SOVEREIGNTY**



## 15

**FOR OVER 15 YEARS, AMAZON WEB SERVICES (AWS) HAS BEEN THE MOST COMPREHENSIVE AND WIDELY-ADOPTED CLOUD PLATFORM IN THE WORLD.**

# AMAZON WEB SERVICES

For over **15 years**, **AWS** has been the most comprehensive and widely-adopted cloud platform in the world. AWS has continuously expanded its services to support practically any workload in the cloud and now offers **over 200 complete services** for calculation, storage, databases, networking, analytics, robotics, automatic learning and artificial intelligence (AI), Internet of Things (IoT), mobile, security, hybrid, virtual and augmented reality (VR and AR), media and development. Millions of customers - including the most rapidly-growing start-ups, the largest companies and the main government agencies - rely on AWS to boost their infrastructures, become more flexible and satisfy the highest security requirements.



**REDUNDANCY:** All data sources are redundant in order to ensure a high level of reliability and short failover time.



**CRYPTOGRAPHY:** All data sources are encrypted with symmetric encryption keys that are managed on FIPS 140-2 compliant hardware security modules.



**LOCK:** Data sources are not publicly accessible in order to ensure an additional level of security.



**BACKUP:** Backups are constantly being made on all data sources and drives, which are stored in encrypted form on media and distributed across different and distant geographical locations.



**AMAZON INSPECTOR:** With the Amazon Inspector service, vulnerability assessment is automatically and continuously evaluated in order to detect security holes in software, its dependencies, and network configurations.



**AMAZON GUARDDUTY:** A threat detection service that constantly monitors accounts and AWS workloads for malicious activity, providing detailed security results for recovery visibility.



**AMAZON MACIE:** Monitoring through tools that use ML and pattern matching to identify sensitive data and protect privacy and security by enforcing best practices.



**AMAZON CLOUDWATCH:** A monitoring service providing detailed data and information that can be used to monitor applications, respond to performance changes in the system, and optimise resource use.



**AMAZON SHIELD:** The infrastructure is protected by an Intelligent Threat Detection tool with protection against DDoS attacks up to level 4 of the ISO OSI model.

# OUR PRODUCT RANGES

## Two ranges, one solution.

Comelit currently offers **two product ranges**: the NEXT series and the ADVANCE series.

**THE NEXT SERIES** comprises high-tech products: cameras with different housings, lenses and sensors with resolutions up to 4K, recording machines up to 16 ch. In short, it is ideal for small and medium-sized systems.

**THE ADVANCE SERIES**, on the other hand, offers very high standards when it comes to Deep Video Analysis (DVA), video analysis functions that are able to distinguish people, vehicles, bicycles and motorbikes, target counting functions, heat maps, from face recognition to metadata analysis (DVA 2.0), video recorders up to 128 ch, platform products with storage servers, and management servers that can accommodate systems of up to 30,000 ch. Ideal for medium and large systems and to meet any type of demand.

**THE NEXT SERIES AND THE ADVANCE SERIES ARE MANAGED THROUGH A SINGLE PLATFORM, A SINGLE APP, AND A SINGLE VMS.**

**THIS MAKES IT POSSIBLE TO MIX ANY KIND OF SERIES IN ORDER TO OFFER AN INCREASINGLY TAILORED VIDEO SURVEILLANCE SYSTEM, THUS MEETING ALL TECHNOLOGICAL AND ECONOMIC REQUIREMENTS.**



Video analytics functions **push the boundaries** of video surveillance beyond simple viewing and video recording.

They make it possible for users to **protect** their property from break-ins, search for events more quickly, and instantly receive push and email notifications. Besides standard video analysis functions such as perimeter protection, marketing analysis is also made possible through various functions such as gender and age recognition, vehicle identification, and direction of travel identification.

RETAIL



CAMPUS



TRANSPORT



COMMUNITY



HOTELS



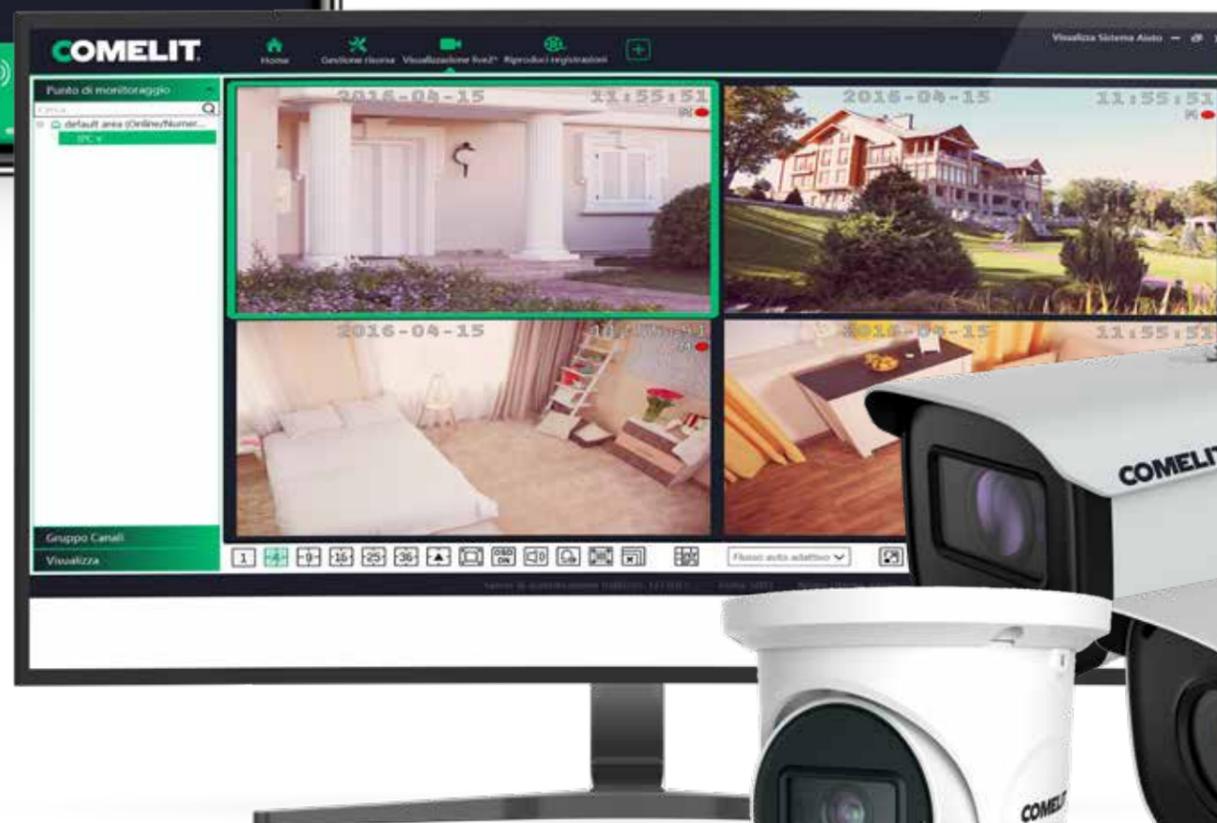
INDUSTRY



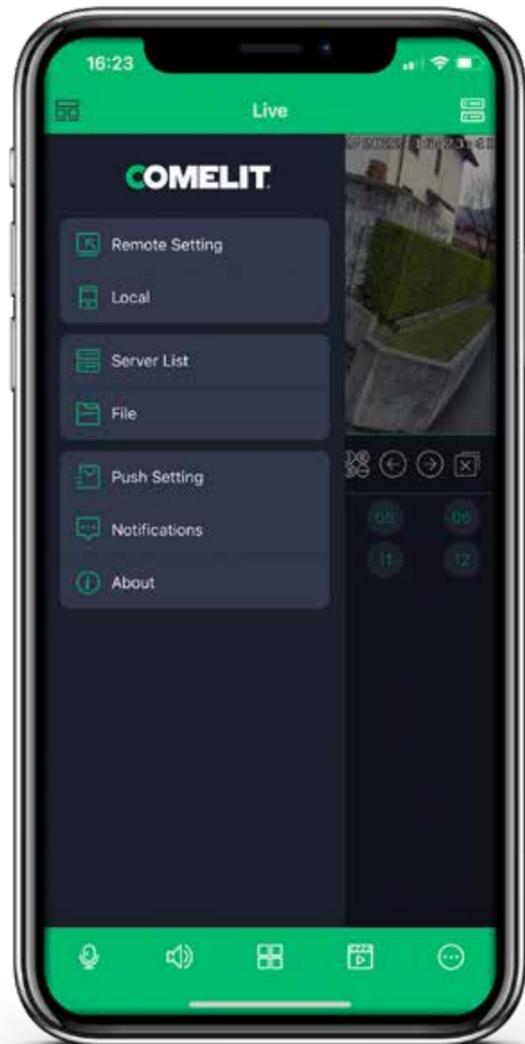
RESIDENTIAL



BANKS



# COMELIT CCTV APP



**COMELIT CCTV IS A FREE APPLICATION FOR IOS AND ANDROID DEVICES. IT IS COMPATIBLE WITH ALL NVRS, XVRS AND IP CAMERAS IN THE ADVANCE AND NEXT SERIES. IT OFFERS USERS FULL CONTROL OF THE DEVICES, ALLOWING ACCESS TO LIVE VIEW, PLAYBACK AND SETTINGS.**



## Ultimate customisation

Comelit CCTV allows you to choose:

- the view you get on opening the APP (one specific device only, a favourite group of channels, the last layout shown)
- what happens when you open a push notification (live view of the channel, point of event playback, etc.)
- what type of playback events will be shown (all, motion, sensors, analysis)
- the desired viewing layout (choose between 8 different viewing modes)
- the video stream based on the network speed.

## Optimum control

Devices can be set directly via the app with full configuration functions, as if you were actually at the installation site:

- adding faces to the face database
- backing up the recorded files
- speaking and listening via supported devices
- activating alarms
- performing P2P connection

Plus:

- password gesture login
- playback bar with different colours according to the event
- PTZ and motorised lens control
- fisheye view

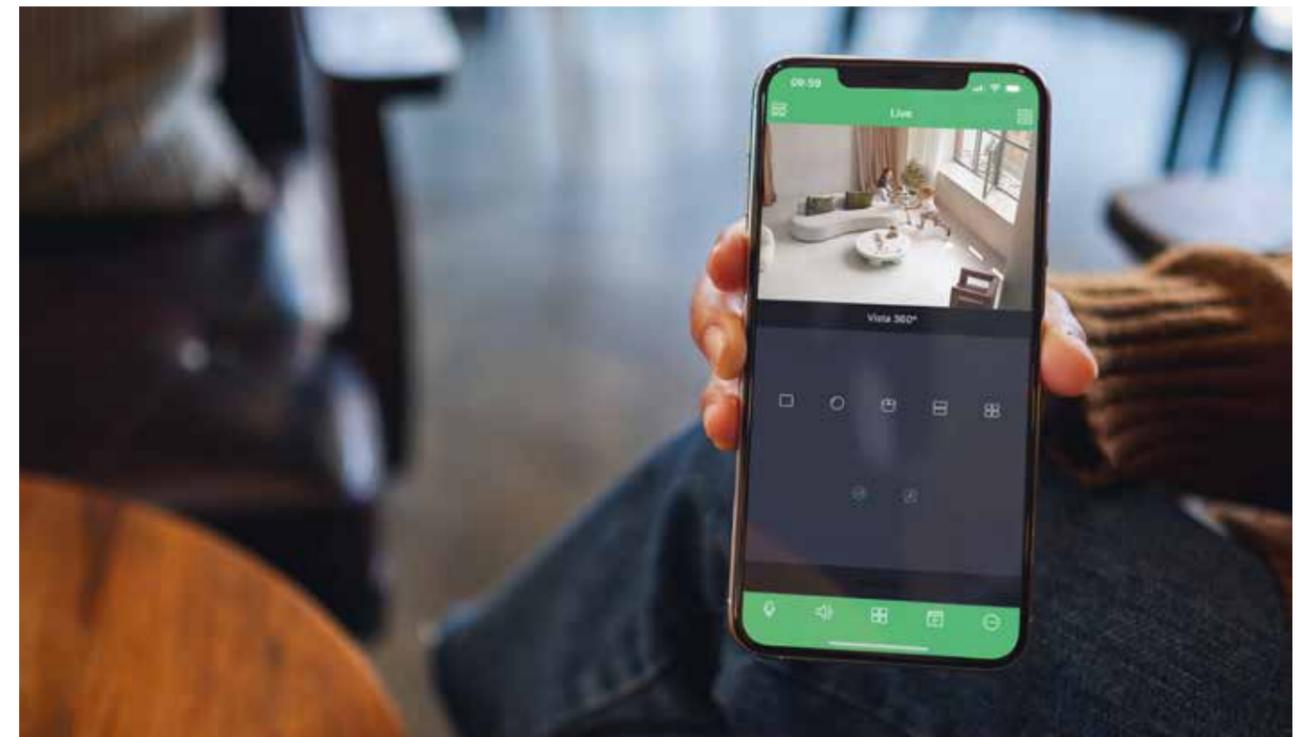
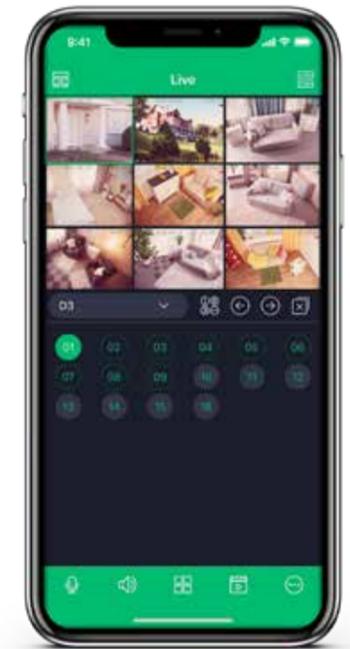
## Content for sharing

The Comelit CCTV App can be used to share snapshots or video clips, either live or in playback mode, via:

- applications installed on the smartphone such as WhatsApp, Facebook, WeChat, LinkedIn, Dropbox
- email
- QR code

## Fisheye camera control

- virtual PTZ: zoom forwards/backwards and move within the image for a 360° view
- cylinder mode: 3D image that can be rotated and enlarged with a finger.



# COMELIT CCTV MANAGER

## Features

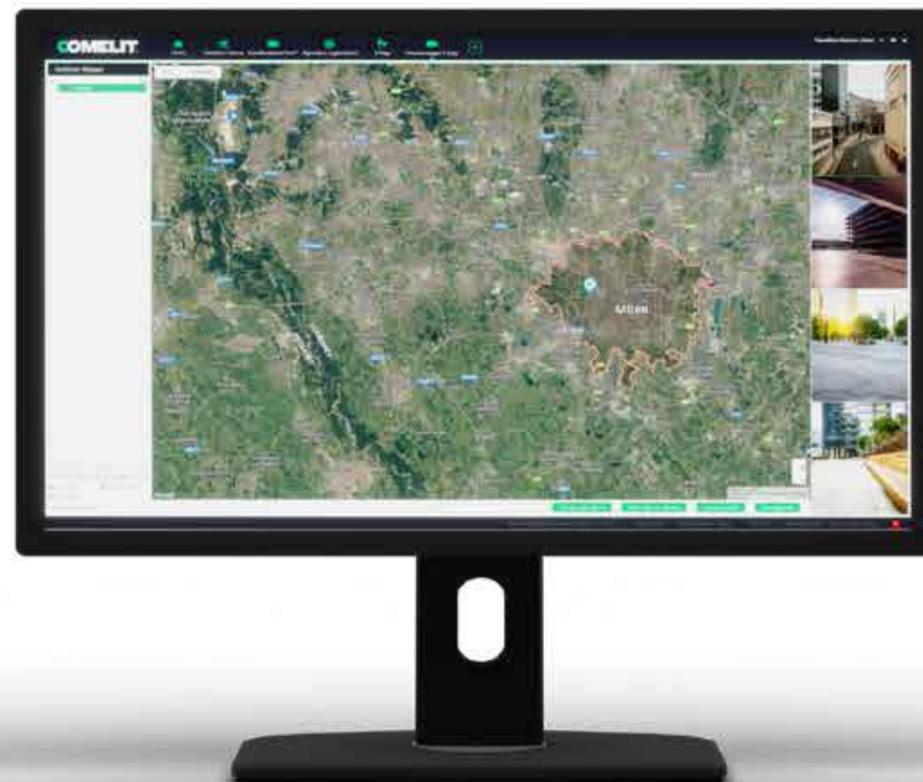
Comelit CCTV manager is the new integrated security management platform released by Comelit. The new platform combines interaction between devices capturing and managing videos (XVR, NVR, IP Cam), alarm devices, servers, IP-SAN, clients, monitors and TV WALLS. Suitable for all installations, it can connect different network

devices and bring service to over 30,000 connected cameras. The software has: a powerful capacity for managing video surveillance, displaying cameras in real time, storing records, replaying recordings, downloading and backing up recordings, managing alarms, decoding on TV Walls, controlling the keypad, managing the entry and exit of vehicles and all Deep Video Analysis (DVA) functions.

- Supported OS: Windows, Linux (\*1), MAC (\*2)
- MySQL database
- Client: web browser, IOS Android App
- Supports Virtual machine
- Supported protocols: ONVIF, RTSP
- TV Wall management
- Supports Deep Video Analysis

- Parking management
- Face Recognition
- ANPR cameras
- Online graphic maps (Google Maps)
- Live streaming, playback, backup
- Up to 30,000 cameras Unlimited clients

Max. number of channel accesses	30000 CH
Max. number of NVR accesses	1024 NVRs
Max. decoding capability	256 CH
Max. number of transfer server accesses	128 servers
Max. number of storage screen displays	128 servers (storage servers with transfer function)
Max. number of screen displays	100 CH, auto-switch supported
Max. number of plan views	20
Max. number of users	256 users



# NEXT SERIES

## Main functions

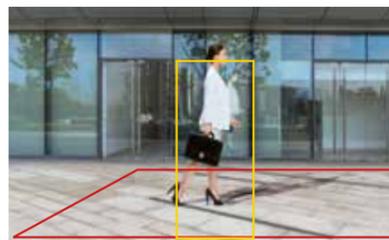


### Human/vehicle classification

Offers reliable identification of the target and allows identification of people, vehicles, bikes and motorcycles, eliminating false alarms generated by atmospheric events, animals or moving objects.

### Zoom

PTZ IP cameras reach an optical zoom up to 40X.



### Region intrusion detection

An alarm is generated if there is an intrusion within an area. It is also possible to identify whether it is a person or a vehicle entering the programmed area, creating custom alarm activation rules.

### Ultra Starlight

The 1/2" sensor increases sensitivity to light by 5 times in relation to classic cameras; it provides sharp images with a high contrast even in low lighting conditions.

### Microphone

Some IP cameras have a built-in microphone, for easier audio management.

### ONVIF

ONVIF version support, profile S and profile G.

### 3 streaming

All IP cameras in the Next series support 3 Streaming.



### Line crossing detection

An alarm is generated if one or more configured lines are crossed. It is possible to identify whether it is a person or a vehicle crossing the programmed line, creating custom alarm activation rules.

### IP67

The cameras are IP67 certified.

### IK10

The outdoor IP cameras adhere to IK10 vandalproof standards.

### -30 °C ~ 60 °C

Most IP cameras also operate in extreme temperature conditions (-30 °C / +60 °C).

### 4-8MP

4 MP to 8 MP (4K) resolution.

### H.265+

H265+ integrates different functions: scene recognition, a smart noise reduction algorithm and bit rate control based on macroblocks. In the majority of scenes the bit rate can be reduced by 40% (compared with the H.264 and H.265 standards). Compatible with third-party NVRs and VMS.

### TVS 6000V

The IP cameras are equipped with 6,000V protection against lightning and 2,000V overload protection.

### NEXT series ColorUP

In the field of video surveillance, it is becoming increasingly essential to have detailed, high-quality images, especially in poor lighting conditions. If we were to use a conventional camera at night, it would be impossible to capture key details, such as what a person is wearing or the colour of a vehicle. The Comelit Colour Up line can deliver very sharp colour images under poor lighting conditions while minimising noise levels.



### True WDR

Self-adapting ultra wide dynamic range technology, with a dynamic range up to 120 dB.



### ROI Zone (Region Of Interest)

It ensures image quality and detail in several zones within the scene, optimising the overall bandwidth of the video stream.



## IP Bullet 4MP



ULTRA STARLIGHT

**IPBCAMN04FB**



ULTRA STARLIGHT

**IPBCAMN04ZB**

<b>Sensor</b>	1 / 3" CMOS	1 / 3" CMOS
<b>Resolution</b>	2560 x 1440 (4MP)	2560 x 1440 (4MP)
<b>Lens</b>	2.8 mm, Fixed lens	2.8-12 mm, Motorised lens with autofocus
<b>Min. Lighting (lux)</b>	0.005 (colour), 0 (black and white, IR LEDs ON)	0.005 (colour), 0 (black and white, IR LEDs ON)
<b>Day/Night</b>	Auto(ICR)/Day/Night/Timed	Auto(ICR)/Day/Night/Timed
<b>IR LEDs</b>	50 m (Smart IR)	50 m (Smart IR)
<b>WDR</b>	120 dB	120 dB
<b>Starlight</b>	Ultra starlight	Ultra starlight
<b>White balancing</b>	Auto/Manual/Indoor/Outdoor	Auto/Manual/Indoor/Outdoor
<b>Main Functions</b>	BLC/3D DNR/HLC	BLC/3D DNR/HLC
<b>Video Compression</b>	H.265 / H.264	H.265 / H.264 / MJPEG
<b>Frame rate</b>	30 fps	30 fps
<b>Multi Streaming</b>	3 Streaming	3 Streaming
<b>Digital effects</b>	Corridor mode (90°/180°/270° rotation), mirror mode (horizontal, vertical, 180° rotation), flip	Corridor mode (90°/180°/270° rotation), mirror mode (horizontal, vertical, 180° rotation), flip
<b>Video Analysis</b>	Area intrusion detection (distinction between humans/vehicles), line crossing (distinction between humans/vehicles), video tampering, scene change	Area intrusion detection (distinction between humans/vehicles), line crossing (distinction between humans/vehicles), video tampering, scene change
<b>ROI zones</b>	8	8
<b>Privacy zones</b>	4	4
<b>Integration protocols</b>	Onvif profile G,S,T	Onvif profile G,S,T
<b>Micro SD Card slot</b>	Built-in micro SD card slot (supports up to 256 GB)	Built-in micro SD card slot (supports up to 256 GB)
<b>Audio Inputs/Outputs</b>	1 / 0	1 / 0
<b>IP rating</b>	IP67	IP67
<b>IK rating</b>	IK10	IK10
<b>Power supply</b>	12 Vdc (<8W)	12 Vdc (<8W)
<b>POE power supply</b>	Standard IEEE802.3af	Standard IEEE802.3af
<b>Operating temperature</b>	-30 °C - 60 °C < 95% RH	-30 °C - 60 °C < 95% RH
<b>Dimensions (mm)</b>	218.1 x 79.5 x 70.4	218.1 x 79.5 x 70.4
<b>Accessories</b>	JBA-BA, CMA-BA, WMA-BA, PMA-A, AMA-A.	JBA-BA, CMA-BA, WMA-BA, PMA-A, AMA-A.

## IP Turret 4MP



ULTRA STARLIGHT

**IPTCAMN04FB**



ULTRA STARLIGHT

**IPTCAMN04ZB**

<b>Sensor</b>	1 / 3" CMOS	1 / 3" CMOS
<b>Resolution</b>	2560 x 1440 (4MP)	2560 x 1440 (4MP)
<b>Lens</b>	2.8 mm, Fixed lens	2.8-12 mm, Motorised lens with autofocus
<b>Min. Lighting (lux)</b>	0.005 (colour), 0 (black and white, IR LEDs ON)	0.005 (colour), 0 (black and white, IR LEDs ON)
<b>Day/Night</b>	Auto(ICR)/Day/Night/Timed	Auto(ICR)/Day/Night/Timed
<b>IR LEDs</b>	30 m (Smart IR)	50 m (Smart IR)
<b>WDR</b>	120 dB	120 dB
<b>Starlight</b>	Ultra starlight	Ultra starlight
<b>White balancing</b>	Auto/Manual/Indoor/Outdoor	Auto/Manual/Indoor/Outdoor
<b>Main Functions</b>	BLC/3D DNR/HLC	BLC/3D DNR/HLC
<b>Video Compression</b>	H.265 / H.264 / MJPEG	H.265 / H.264 / MJPEG
<b>Frame rate</b>	30 fps	30 fps
<b>Multi Streaming</b>	3 Streaming	3 Streaming
<b>Digital effects</b>	Corridor mode (90°/180°/270° rotation), mirror mode (horizontal, vertical, 180° rotation), flip	Corridor mode (90°/180°/270° rotation), mirror mode (horizontal, vertical, 180° rotation), flip
<b>Video Analysis</b>	Area intrusion detection (distinction between humans/vehicles), line crossing (distinction between humans/vehicles), video tampering, scene change	Area intrusion detection (distinction between humans/vehicles), line crossing (distinction between humans/vehicles), video tampering, scene change
<b>ROI zones</b>	8	8
<b>Privacy zones</b>	4	4
<b>Integration protocols</b>	Onvif profile G,S,T	Onvif profile G,S,T
<b>Micro SD Card slot</b>	Built-in micro SD card slot (supports up to 256 GB)	Built-in micro SD card slot (supports up to 256 GB)
<b>Audio Inputs/Outputs</b>	1 + Mic / 0	1 + Mic / 0
<b>IP rating</b>	IP67	IP67
<b>IK rating</b>	IK10	IK10
<b>Power supply</b>	12 Vdc (<5W)	12 Vdc (<8W)
<b>POE power supply</b>	Standard IEEE802.3af	Standard IEEE802.3af
<b>Operating temperature</b>	-30 °C - 60 °C < 95% RH	-30 °C - 60 °C < 95% RH
<b>Dimensions (mm)</b>	108 x 95.7 x 95.7	109.3 x 130.7 x 130.7
<b>Accessories</b>	JBA-TBBA, CMA-KTBBA, WMA-KTBBA, PMA-A, AMA-A, WMA-01A	JBATVA, CMA-TVA, WMA-TVA, PMA-A, AMA-A, WMA-02A

## NEXT SERIES

### IP Bullet 8MP



ULTRA STARLIGHT

#### IPBCAMN08FB



ULTRA STARLIGHT

#### IPBCAMN08ZB

<b>Sensor</b>	1/2.8" CMOS	1/2.8" CMOS
<b>Resolution</b>	3840 x 2160 (8MP)	3840 x 2160 (8MP)
<b>Lens</b>	2.8 mm, Fixed lens	2.8-12 mm, Motorised lens with autofocus
<b>Min. Lighting (lux)</b>	0.018 (colour), 0 (black and white, IR LEDs ON)	0.018 (colour), 0 (black and white, IR LEDs ON)
<b>Day/Night</b>	Auto(ICR)/Day/Night/Timed	Auto(ICR)/Day/Night/Timed
<b>IR LEDs</b>	50 m (Smart IR)	50 m (Smart IR)
<b>WDR</b>	120 dB	120 dB
<b>Starlight</b>	Ultra starlight	Ultra starlight
<b>White balancing</b>	Auto/Manual/Indoor/Outdoor	Auto/Manual/Indoor/Outdoor
<b>Main Functions</b>	BLC/3D DNR/HLC	BLC/3D DNR/HLC
<b>Video Compression</b>	H.265+ / H.265 / H.264+ / H.264 / MJPEG	H.265+ / H.265 / H.264+ / H.264 / MJPEG
<b>Frame rate</b>	20 fps	20 fps
<b>Multi Streaming</b>	3 Streaming	3 Streaming
<b>Digital effects</b>	Corridor mode (90°/180°/270° rotation), mirror mode (horizontal, vertical, 180° rotation), flip	Corridor mode (90°/180°/270° rotation), mirror mode (horizontal, vertical, 180° rotation), flip
<b>Video Analysis</b>	Area intrusion detection (distinction between humans/vehicles), line crossing (distinction between humans/vehicles), video tampering, scene change	Area intrusion detection (distinction between humans/vehicles), line crossing (distinction between humans/vehicles), video tampering, scene change
<b>ROI zones</b>	8	8
<b>Privacy zones</b>	4	4
<b>Integration protocols</b>	Onvif profile G,S	Onvif profile G,S
<b>Micro SD Card slot</b>	Built-in micro SD card slot (supports up to 256 GB)	Built-in micro SD card slot (supports up to 256 GB)
<b>Audio Inputs/Outputs</b>	1 / 0	1 / 0
<b>IP rating</b>	IP67	IP67
<b>IK rating</b>	IK10	IK10
<b>Power supply</b>	12 Vdc (<10W)	12 Vdc (<10W)
<b>POE power supply</b>	Standard IEEE802.3af	Standard IEEE802.3af
<b>Operating temperature</b>	-30 °C - 60 °C < 95% RH	-30 °C - 60 °C < 95% RH
<b>Dimensions (mm)</b>	218.1 x 79.5 x 70.4	218.1 x 79.5 x 70.4
<b>Accessories</b>	JBA-BA, CMA-BA, WMA-BA, PMA-A, AMA-A.	JBA-BA, CMA-BA, WMA-BA, PMA-A, AMA-A.

### IP Turret 8MP



ULTRA STARLIGHT

#### IPTCAMN08FB



ULTRA STARLIGHT

#### IPTCAMN08ZB

<b>Sensor</b>	1/2.8" CMOS	1/2.8" CMOS
<b>Resolution</b>	3840 x 2160 (8MP)	3840 x 2160 (8MP)
<b>Lens</b>	2.8 mm, Fixed lens	2.8-12 mm, Motorised lens with autofocus
<b>Min. Lighting (lux)</b>	0.03 (colour), 0 (black and white, IR LEDs ON)	0.03 (colour), 0 (black and white, IR LEDs ON)
<b>Day/Night</b>	Auto(ICR)/Day/Night/Timed	Auto(ICR)/Day/Night/Timed
<b>IR LEDs</b>	30 m (Smart IR)	50 m (Smart IR)
<b>WDR</b>	120 dB	120 dB
<b>Starlight</b>	Ultra starlight	Ultra starlight
<b>White balancing</b>	Auto/Manual/Indoor/Outdoor	Auto/Manual/Indoor/Outdoor
<b>Main Functions</b>	BLC/3D DNR/HLC	BLC/3D DNR/HLC
<b>Video Compression</b>	H.265+ / H.265 / H.264+ / H.264 / MJPEG	H.265+ / H.265 / H.264+ / H.264 / MJPEG
<b>Frame rate</b>	20 fps	20 fps
<b>Multi Streaming</b>	3 Streaming	3 Streaming
<b>Digital effects</b>	Corridor mode (90°/180°/270° rotation), mirror mode (horizontal, vertical, 180° rotation), flip	Corridor mode (90°/180°/270° rotation), mirror mode (horizontal, vertical, 180° rotation), flip
<b>Video Analysis</b>	Area intrusion detection (distinction between humans/vehicles), line crossing (distinction between humans/vehicles), video tampering, scene change	Area intrusion detection (distinction between humans/vehicles), line crossing (distinction between humans/vehicles), video tampering, scene change
<b>ROI zones</b>	8	8
<b>Privacy zones</b>	4	4
<b>Integration protocols</b>	Onvif profile G,S	Onvif profile G,S
<b>Micro SD Card slot</b>	Built-in micro SD card slot (supports up to 256 GB)	Built-in micro SD card slot (supports up to 256 GB)
<b>Audio Inputs/Outputs</b>	1 + Mic / 0	1 + Mic / 0
<b>IP rating</b>	IP67	IP67
<b>IK rating</b>	IK10	IK10
<b>Power supply</b>	12 Vdc (<7.5W)	12 Vdc (<8W)
<b>POE power supply</b>	Standard IEEE802.3af	Standard IEEE802.3af
<b>Operating temperature</b>	-30 °C - 60 °C < 95% RH	-30 °C - 60 °C < 95% RH
<b>Dimensions (mm)</b>	108 x 95.7 x 95.7	109.3 x 130.7 x 130.7
<b>Accessories</b>	JBA-TBBA, CMA-KTBBA, WMA-KTBBA, PMA-A, AMA-A, WMA-01A	JBA-TVA, CMA-TVA, WMA-TVA, PMA-A, AMA-A, WMA-02A

## NEXT SERIES

### Bullet ColorUP



**IPBCAMN04F01CUA**

**IPBCAMN04ZCUA**

<b>Sensor</b>	1 / 3" CMOS	1 / 3" CMOS
<b>Resolution</b>	2592 x 1520 (4MP)	2592 x 1520 (4MP)
<b>Lens</b>	2.8 mm, Fixed lens	2.8-12 mm, Motorised lens with autofocus
<b>Min. Lighting (lux)</b>	0.03 (colour @F2.2), 0 with LED light on	0.0005 (colour @F1.0), 0 with LED light on
<b>Day/Night</b>	Auto(ICR)/Day/Night/Timed	Auto(ICR)/Day/Night/Timed
<b>White LED</b>	20 m	40 m
<b>IR LEDs</b>	20 m (Smart IR)	30 m (Smart IR)
<b>Dual Light function</b>	Yes	Yes
<b>WDR</b>	Digital WDR	120 dB
<b>White balancing</b>	Auto/Manual/Indoor/Outdoor	Auto/Manual/Indoor/Outdoor
<b>Main Functions</b>	BLC/3D DNR	BLC/3D DNR/HLC
<b>Video Compression</b>	H.265+ / H.265 / H.264 + / H.264 / MJPEG	H.265 / H.264 / MJPEG
<b>Frame rate</b>	30 fps	30 fps
<b>Multi Streaming</b>	3 Streaming	3 Streaming
<b>Digital effects</b>	Mirror mode	Corridor mode (90°/180°/270° rotation), mirror mode (horizontal, vertical, 180° rotation), flip
<b>Video Analysis</b>	Line crossing, Area intrusion detection	Line crossing, Area intrusion detection
<b>ROI zones</b>	8	8
<b>Privacy zones</b>	4	4
<b>Integration protocols</b>	ONVIF profile S	Onvif profile G,S,T
<b>Micro SD Card slot</b>	/	Built-in micro SD card slot (supports up to 256 GB)
<b>Audio Inputs/Outputs</b>	Mic / 0	1 + Mic / 0
<b>IP rating</b>	IP67	IP67
<b>IK rating</b>	IK10	IK10
<b>Power supply</b>	12 Vdc (<5W)	12 Vdc (<10W)
<b>POE power supply</b>	Standard IEEE802.3af	Standard IEEE802.3af
<b>Operating temperature</b>	-30 °C - 60 °C < 95% RH	-30 °C - 60 °C < 95% RH
<b>Dimensions (mm)</b>	162.1 x 73.8 x 74.8	217.8 x 80.5 x 80.3
<b>Accessories</b>	JBA-BA, CMA-BA, WMA-BA, PMA-A, AMA-A.	JBA-BA, CMA-BA, WMA-BA, PMA-A, AMA-A.

### Turret ColorUP



**IPTCAMN04F01CUA**

**IPTCAMN04ZCUA**

<b>Sensor</b>	1 / 3" CMOS	1 / 3" CMOS
<b>Resolution</b>	2650 x 1440 (4MP)	2560 x 1440 (4MP)
<b>Lens</b>	2.8 mm, Fixed lens	2.8-12 mm, Motorised lens with autofocus
<b>Min. Lighting (lux)</b>	0.03 (colour @F2.2), 0 with LED light on	0.0005 (colour @F1.0), 0 with LED light on
<b>Day/Night</b>	Auto(ICR)/Day/Night/Timed	Auto(ICR)/Day/Night/Timed
<b>White LED</b>	20m	40 m
<b>IR LEDs</b>	20 m (Smart IR)	30 m (Smart IR)
<b>Dual Light function</b>	Yes	Yes
<b>WDR</b>	Digital WDR	120 dB
<b>White balancing</b>	Auto/Manual/Indoor/Outdoor	Auto/Manual/Indoor/Outdoor
<b>Main Functions</b>	BLC/3D DNR	BLC/3D DNR/HLC
<b>Video Compression</b>	H.265+ / H.265 / H.264 + / H.264 / MJPEG	H.265 / H.264 / MJPEG
<b>Frame rate</b>	30 fps	30 fps
<b>Multi Streaming</b>	3 Streaming	3 Streaming
<b>Digital effects</b>	Mirror mode	Corridor mode (90°/180°/270° rotation), mirror mode (horizontal, vertical, 180° rotation), flip
<b>Video Analysis</b>	Line crossing, Area intrusion detection	Line crossing, Area intrusion detection
<b>ROI zones</b>	8	8
<b>Privacy zones</b>	4	4
<b>Integration protocols</b>	ONVIF profile S	Onvif profile G,S,T
<b>Micro SD Card slot</b>	/	Built-in micro SD card slot (supports up to 256 GB)
<b>Audio Inputs/Outputs</b>	Mic / 0	1 + Mic / 0
<b>IP rating</b>	IP67	IP67
<b>IK rating</b>	IK10	IK10
<b>Power supply</b>	12 Vdc (<5W)	12 Vdc (<10W)
<b>POE power supply</b>	Standard IEEE802.3af	Standard IEEE802.3af
<b>Operating temperature</b>	-30 °C - 60 °C < 95% RH	-30 °C - 60 °C < 95% RH
<b>Dimensions (mm)</b>	82.8 x 94.6 x 94.6	99.6 x 111.6 x 111.6
<b>Accessories</b>	JBA-BA, CMA-BA, WMA-BA, PMA-A, AMA-A, WMA-01A.	JBA-TBBA, CMA-KTBBA, WMA-KTBBA, PMA-A, AMA-A, WMA-01A

# NEXT SERIES

## NVR / XVR

### Main Functions

#### 8MP

NVRs can record videos in real time with a maximum resolution of up to 8MP.

#### E-SATA

If necessary, the E-Sata port can be used to connect additional storage devices.

#### DVA

The NVR supports all DVA functions.

#### Storage Group

In XVR/NVR models with more than one HDD, the user can pair cameras/HDDs to achieve improved service continuity.

#### Recording duration on a single channel

The recording duration before overwriting can be set on each camera connected to the NVR.

#### USB Alarm

XVRs/NVRs support the expansion module with 16 inputs and 6 alarm outputs.

#### From analogue to IP

The analogue channel can be flexibly switched to the IP channel.

#### 5 in 1

XVRs support various technologies: AHD, TVI, CVI, analogue and IP.

#### Smart search

Used to quickly search for events. DVA technology also makes it possible to perform specific searches by filtering people and vehicles.





NVRs



**NIPNVR004N06PA  
NIPNVR004N06PASL**

**NIPNVR008N06PA  
NIPNVR008N06PASL**

IP Cameras	4ch	8ch
Max. Recording resolution	4@6MP/5MP/4MP/3MP/1080P/960P/720P/D1/CIF	8@6MP/5MP/4MP/3MP/1080P/960P/720P/D1/CIF
POE ports	4 x Ethernet (10/100 Mbps) PoE (IEEE802.3af)	8 x Ethernet (10/100 Mbps) PoE (IEEE802.3af)
Video outputs	1 HDMI, 1 VGA (1080p)	1 HDMI, 1 VGA (1080p)
Recording type	Dual Streaming	Dual Streaming
Video Compression	H.265S/H.265+/H.265/H.264	H.265S/H.265+/H.265/H.264
Recording Rate	Main stream: 6MP/5MP/4MP/3MP/1080P/960P/720P/D1/CIF (1-25/30 fps) (PAL/NTSC) Sub stream: 1080P/960P/720P/D1/CIF (1-25/30 fps) (PAL/NTSC)	Main stream: 6MP/5MP/4MP/3MP/1080P/960P/720P/D1/CIF (1-25/30 fps) (PAL/NTSC) Sub stream: 1080P/960P/720P/D1/CIF (1-25/30 fps) (PAL/NTSC)
Synchronised playback	1CH 6MP / 4CH 1080P	1CH 6MP / 4CH 1080P / 8CH D1
Video Analysis	Video analysis (only with dedicated cameras)	Video analysis (only with dedicated cameras)
HDD interface	1 SATA, (Maximum Hard Disk capacity 10TB)	1 SATA, (Maximum Hard Disk capacity 10TB)
HDD included	NIPNVR004N06PA: 1TB NIPNVR004N06PASL: no HDD	NIPNVR008N06PA: 1TB NIPNVR008N06PASL: no HDD
Bandwidth	40 Mbps	64 Mbps
Integration protocols	ONVIF (Profile S, T, G)	ONVIF (Profile S, T, G)
Max. simultaneous connections	32	32
Network interface	RJ 45 x 1 (10/100 Mbps)	RJ 45 x 1 (10/100 Mbps)
Serial ports	2 x USB 2.0	2 x USB 2.0
Power supply	DC 48V/1.25A	DC 48V/1.8A
Operating temperature	-10 °C - 50 °C < 90% RH	-10 °C - 50 °C < 90% RH
Dimensions (mm) HxWxD	42 x 255 x 222	42 x 255 x 222
Compatible metal box	SBOX	SBOX
Metal box compatible with monitor setup	LBOX	LBOX



NVRs



**NIPNVR016N08PA  
NIPNVR016N08PASL**

**NIPNVR016N08NA  
NIPNVR016N08NASL**

IP Cameras	16ch	16ch
Max. Recording resolution	16@8MP/6MP/5MP/4MP/3MP/1080P/1280x1024/960P/720P/960H/D1/CIF	16Ch@8MP/6MP/5MP/4MP/3MP/1080P/1280x1024/960P/720P/960H/D1/CIF
POE ports	16 x Ethernet (100/100 Mbps) PoE (IEEE802.3af)	/
Video outputs	1 HDMI (4K) 1 VGA 1080p	1 HDMI (4K) 1 VGA 1080p
Recording type	Dual Streaming	Dual Streaming
Video Compression	H.265S/H.265+/H.265/H.264	H.265S/H.265+/H.265/H.264
Recording Rate	Main stream: 8MP/6MP/5MP/4MP/3MP/1080P/1280x1024/960P/720P/960H/D1/CIF (1-25/30 fps) (PAL/NTSC) Sub stream: 1080P/960P/720P/D1/CIF (1-25/30 fps) (PAL/NTSC)	Main stream: 8MP/6MP/5MP/4MP/3MP/1080P/1280x1024/960P/720P/960H/D1/CIF (1-25/30 fps) (PAL/NTSC) Sub stream: 1080P/960P/720P/D1/CIF (1-25/30 fps) (PAL/NTSC)
Synchronised playback	1CH 8MP / 4CH 1080P / 16CH D1	1CH 8MP / 4CH 1080P / 16CH D1
Video Analysis	Video analysis (only with dedicated cameras)	Video analysis (only with dedicated cameras)
HDD interface	2 SATA, (Maximum Hard Disk capacity 10TB)	2 SATA, (Maximum Hard Disk capacity 10TB)
HDD included	NIPNVR016N08PA: 2TB NIPNVR016N08PASL: no HDD	NIPNVR016N08NA: 2TB NIPNVR016N08NASL: no HDD
Bandwidth	160 Mbps	160 Mbps
Integration protocols	ONVIF (Profile S, T, G)	ONVIF (Profile S, T, G)
Max. simultaneous connections	64	64
Network interface	RJ 45 x 1 (10/100/1000 Mbps)	RJ 45 x 1 (10/100/1000 Mbps)
Serial ports	2 x USB 2.0	2 x USB 2.0
Power supply	DC 48V/3.75A	DC 12V/3A
Operating temperature	-10 °C - 50 °C < 90% RH	-10 °C - 50 °C < 90% RH
Dimensions (mm) HxWxD	45 x 380 x 268	45 x 380 x 268
Compatible metal box	MBOX	MBOX
Metal box compatible with monitor setup	LBOX	LBOX

**XVRs**



**AHDVR004N05A  
AHDVR004N05ASL**

**AHDVR008N05A  
AHDVR008N05ASL**

Analogue inputs	4 CH	8 CH
IP Cameras	2CH@5MP	4CH@5MP
Recording resolution	5MP / 4MP / 1080P / 720P / WD1	5MP / 4MP / 1080P / 720P / WD1
Analogue technologies supported	AHD/TVI/CVI/CVBS	AHD/TVI/CVI/CVBS
Hybrid mode	Analogue+Network: 4CH Analogue (MAX 5MP) +2 IPC (MAX 5MP)	Analogue+Network: 8CH Analogue (MAX 5MP) +4 IPC (MAX 5MP)
Video outputs	1 HDMI, 1 VGA (1080p)	1 HDMI, 1 VGA (1080p)
Recording type	Dual Streaming	Dual Streaming
Video Compression	H.264/H.265	H.264/H.265
Recording Rate	Analogue channels: 5MP Lite: 10 fps; 4MP Lite/1080P: 12 fps (PAL)/15 fps (NTSC); 1080P Lite/720P/WD1: 25 fps (PAL)/30 fps (NTSC) IP cameras: Main stream: 5MP/4MP/3MP/1080P/960P/720P/960H/D1/CIF (1-25/30 fps); (PAL/NTSC) Sub stream: 1080P 960H (1-25/30 fps);D1/CIF/(1-25/30 fps) (PAL/NTSC)	Analogue channels: 5MP Lite: 10 fps; 4MP Lite/1080P: 12 fps (PAL)/15 fps (NTSC); 1080P Lite/720P/WD1: 25 fps (PAL)/30 fps (NTSC) IP cameras: Main stream: 5MP/4MP/3MP/1080P/960P/720P/960H/D1/CIF (1-25/30 fps); (PAL/NTSC) Sub stream: 1080P 960H (1-25/30 fps); D1/CIF/ (1-25/30 fps) (PAL/NTSC)
Synchronised playback	1CH 5MP / 4CH D1	1CH 5MP / 4CH 2MP / 8CH D1
Video Analysis	Video analysis (only with dedicated cameras)	Video analysis (only with dedicated cameras)
HDD interface	1 SATA, (Maximum Hard Disk capacity 10TB)	1 SATA, (Maximum Hard Disk capacity 10TB)
HDD included	AHDVR004N05A: 1TB AHDVR004N05ASL: no HDD	AHDVR008N05A: 1TB AHDVR008N05ASL: no HDD
Bandwidth	16	32
Integration protocols	Onvif (Profile G, T)	Onvif (Profile G, T)
Max. simultaneous connections	5	5
Network interface	RJ45 x 1 (10 / 100 / 1000 Mbps)	RJ45 x 1 (10 / 100 / 1000 Mbps)
Serial interface	2x USB 2.0	2x USB 2.0
Power supply	12VDC	12VDC
Operating temperature	-10 °C - 50 °C < 90% RH	-10 °C - 50 °C < 90% RH
Dimensions (mm) HxWxD	42 x 255 x 222	42 x 255 x 222
Compatible metal box	SBOX	SBOX
Metal box compatible with monitor setup	LBOX	LBOX

**XVRs**



**AHDVR016N05A  
AHDVR016N05ASL**

Analogue inputs	16 CH
IP Cameras	8CH@5MP
Recording resolution	5MP/4MP/1080P/720P/WD1
Analogue technologies supported	AHD/TVI/CVI/CVBS
Hybrid mode	Analogue+Network: 16CH Analogue (MAX 5MP) +8 IPC (MAX 5MP)
Video outputs	1 HDMI, 1 VGA (1080p)
Recording type	Dual Streaming
Video Compression	H.264/H.265
Recording Rate	Analogue channels: 5MP Lite: 10 fps; 4MP Lite/1080P: 12 fps (PAL)/15 fps (NTSC); 1080P Lite/720P/WD1/D1: 25 fps (PAL) / 30 fps (NTSC) IP cameras: Main stream: 5MP/4MP/3MP/1080P/960P/720P/960H/D1/CIF (1-25/30 fps) (PAL/NTSC) Sub stream: 1080P 960H (1-25/30 fps); D1/CIF/(1-25/30 fps) (PAL/NTSC)
Synchronised playback	1CH 5MP / 4CH 2MP / 8CH D1
Video Analysis	Video analysis (only with dedicated cameras)
HDD interface	1 SATA, (Maximum Hard Disk capacity 10TB)
HDD included	AHDVR016N05A: 2TB AHDVR016N05ASL: no HDD
Bandwidth	32
Integration protocols	Onvif (Profile G, T)
Max. simultaneous connections	10
Network interface	RJ45 x 1 (10 / 100 / 1000 Mbps)
Serial interface	2x USB 2.0
Power supply	12VDC
Operating temperature	-10 °C - 50 °C < 90% RH
Dimensions (mm) HxWxD	42 x 255 x 234
Compatible metal box	SBOX
Metal box compatible with monitor setup	LBOX

# THE IP SMART WIFI KIT

Immediately ready to use



Comelit View SMART



The new kit signed Comelit. Discover the new features! Our new wireless video surveillance kit, specially designed to meet the needs of homes and small businesses up to 50 meters distance.

- **Color-up function**

Color vision even in the dark

- **Metal body**

All-metal shell for added strength

- **Integrated microphone**

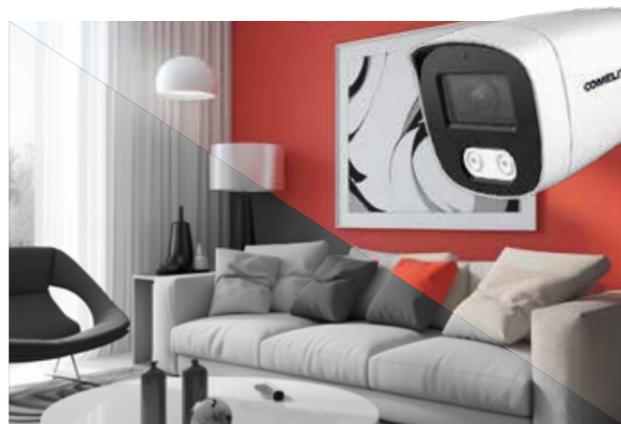
Environmental recording

- **Quick and easy commissioning**

Plug & Play Preconfigured Kit

- **5 megapixel resolution**

Extremely high resolution to capture every deta



### WIKIT004S05NA

Discover the new WIKIT004S05NA, an all-in-one solution that combines convenience and advanced technology. This kit includes four high-resolution 5-megapixel, already preset for a fast and uncomplicated installation, and a recorder with a 1 TB hard disk, optimised for efficient storage. Its strong point is the revolutionary Color-Up function, which allows to capture vivid, full-colour images even in the darkest hours of the night, thus ensuring unrivalled visual quality. The system is equipped with a sophisticated motion detection with artificial intelligence, capable of distinguishing between people and vehicles, offering users the possibility to search and filter recordings according to the type of subject detected. In addition, the Dual Light function allows users to switch between a black and white image and a colour image as people and vehicles pass through. An ideal choice for those seeking safety, clearness and ease of use.

### Quick and Easy Commissioning

To install the kit, simply connect the cameras, NVR and a monitor. Configuration is simple, quick and intuitive, and the hard disk is already ready to record!

## Additional Wi-fi camera



### WIBCAMS05FASP

Camera sensor	1/3" CMOS
Video resolution	2592 x 1944 (5MP)
Lens optical	2,8mm, Fixed optic
Min. Lighting (lux)	0.03 (color), 0 (black and white, IR led ON)
Day/night	Auto(ICR)/Day/Night
White LED	20m
IR LED	30m
Dual light function	Yes
Video compression	H.265
Frame rate	15fps
Digital effects	Corridor mode (90° / 180° / 270° rotation)
Privacy zones (n°)	3
Audio Inputs/Outputs	Mic / 0
IP protection rating	IP66
Supply voltage	12 Vdc (<10W)
Operating temperature (°C)	-10 + 50
Dimensions (mm)	170x70x67.5
Accessories	JBSFIX66A, JBS01PA, PMS01A

**NEXT SERIES**

AHD cameras



	AHDCAMS05F01A	AHDCAMS05FB	AHDCAMS05ZB
<b>Resolution</b>	2592 x 1944 (5MP)	2592 x 1944 (5MP)	2592 x 1944 (5MP)
<b>Lens</b>	3.6 mm	3.6 mm	2.7 ÷ 13.5 mm
<b>Frame rate</b>	5MP@20 fps	5MP@20 fps	5MP@20 fps
<b>IR</b>	10 m (Smart IR)	20 m (Smart IR)	30 m (Smart IR)
<b>WDR</b>	DWDR	DWDR	WDR (120dB)
<b>Video output</b>	AHD,TVI,CVI,CVBS (960H)	AHD,TVI,CVI,CVBS (960H)	AHD,TVI,CVI,CVBS (960H)
<b>UTC control</b>	Yes	Yes	Yes
<b>Back light compensation</b>	BLC	BLC	BLC, HLC
<b>Compatible accessories</b>	/	JBS01PA / JBSFIX66A / PMS01A / WMSFIX01A	JBSVARI66A / PMS01A / WMSFIX01A



	AHDCAMS08FB	AHDCAMS08ZB	AHBCAMS05FB
<b>Resolution</b>	3840 x 2160 (8MP)	3840 x 2160 (8MP)	2592 x 1944 (5MP)
<b>Lens</b>	3.6 mm	2.7 ÷ 13.5 mm	3.6 mm
<b>Frame rate</b>	8MP@15 fps	8MP@15 fps	5MP@20 fps
<b>IR LEDs</b>	20 m (Smart IR)	30 m (Smart IR)	25 m (Smart IR)
<b>WDR</b>	WDR (120dB)	WDR (120dB)	DWDR
<b>Video output</b>	AHD,TVI,CVI,CVBS (960H)	AHD,TVI,CVI,CVBS (960H)	AHD,TVI,CVI,CVBS (960H)
<b>UTC control</b>	Yes	Yes	Yes
<b>Back light compensation</b>	BLC, HLC	BLC, HLC	BLC
<b>Compatible accessories</b>	JBS01PA / JBSFIX66A / PMS01A / WMSFIX01A	JBSVARI66A / PMS01A / WMSFIX01A	JBS01PA / JBSVARI66A / PMS01A

AHD cameras



	AHBCAMS05ZB	AHBCAMS08FB	AHBCAMS08ZB
<b>Resolution</b>	2592 x 1944 (5MP)	3840 x 2160 (8MP)	3840 x 2160 (8MP)
<b>Lens</b>	2.7 ÷ 13.5 mm	3.6 mm	2.7 ÷ 13.5 mm
<b>Frame rate</b>	5MP@20 fps	8MP@15 fps	8MP@15 fps
<b>IR LEDs</b>	40 m (Smart IR)	25 m (Smart IR)	40 m (Smart IR)
<b>WDR</b>	WDR (120dB)	WDR (120dB)	WDR (120dB)
<b>Video output</b>	AHD,TVI,CVI,CVBS (960H)	AHD,TVI,CVI,CVBS (960H)	AHD,TVI,CVI,CVBS (960H)
<b>UTC control</b>	Yes	Yes	Yes
<b>Back light compensation</b>	BLC, HLC	BLC, HLC	BLC
<b>Compatible accessories</b>	JBSVARI66A / PMS01A	JBS01PA / JBSFIX66A / PMS01A	JBSVARI66A / PMS01A



	AHSCAMS05F01A	AHSCAMS05F02A	AHSCAMS02F03A
<b>Resolution</b>	2592 x 1944 (5MP)	2592 x 1944 (5MP)	1920 x 1080 (Full HD)
<b>Lens</b>	3.7 mm	3.6 mm	3.7 mm
<b>Frame rate</b>	5MP@20 fps	5MP@20 fps	2MP@30 fps
<b>IR LEDs</b>	/	/	/
<b>WDR</b>	DWDR	DWDR	DWDR
<b>Video output</b>	AHD,TVI,CVI,CVBS (960H)	AHD,TVI,CVI,CVBS (960H)	AHD,TVI,CVI,CVBS (960H)
<b>UTC control</b>	Yes	Yes	Yes
<b>Back light compensation</b>	BLC	BLC	BLC
<b>Compatible accessories</b>	/	/	/

Accessories



# ADVANCE SERIES

## Metadata analysis

### What is it?

Metadata analysis is performed by an algorithm within the camera, which is able to analyse and grasp specific details regarding people or vehicles passing by and recorded on video.

### What does it recognise?

With regard to people, it can tell whether they are men or women, if they are wearing glasses, a backpack or a hat, as well as what kind and colour of clothes they are wearing. The person's approximate age group is also specified.

As for vehicles, it gives us detailed information on the type, colour, year of production, brand and model of the vehicle.

### When is it useful?

The main purpose of metadata analysis is to help the user search for information while the video is being played. When the recording includes many variables, the option of filtering results according to the required characteristics helps to improve speed and accuracy.

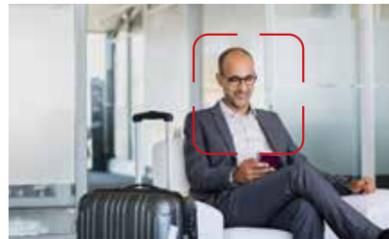


- **Brand** Mercedes
- **Model**  
E Class
- **Type**  
Saloon car
- **Colour**  
Gray
- **Accessories**  
Glasses
- **Attribute**  
Male - age 30
- **Direction**  
Side
- **Clothing**  
Blue jacket  
Grey trousers



# ADVANCE SERIES

## Main functions



### Search by image

Allows simple and quick searching of events and videos associated with one or more faces.



### Face recognition

The algorithm and built-in SOC chip ensure that all facial features are captured, saved and compared with a database. It also allows face recognition in real time, even on several channels at once.



### Human/vehicle classification

Offers reliable identification of the target and allows identification of people, vehicles, bikes and motorcycles, eliminating false alarms generated by atmospheric events, animals or moving objects.



### Region intrusion detection

An alarm is generated if there is an intrusion within an area. It is also possible to identify whether it is a person or a vehicle entering the programmed area, creating custom alarm activation rules.



### Line crossing detection

An alarm is generated if one or more configured lines are crossed. It is possible to identify whether it is a person or a vehicle crossing the programmed line, creating custom alarm activation rules.



### Heat Map

Heat maps record the movement of customers in a specific period. They highlight the areas with the greatest density of customers using a colour scale, thereby offering useful data for identifying where goods should be displayed within the shop.



### Human vehicle counting

Allows counting of people and vehicles both entering and exiting a configured area.



### Face detection

Detects and captures people's faces, for quick and easy searching of the event video recording associated with the face.



### Audio anomaly

It can trigger an alarm when a sudden sound change is recorded over a certain period of time.



### E-MAP

The E-map module shows all installed video surveillance systems - such as NVRs, cameras and alarms - on several levels. In the event of an alarm, E-map displays a preview of the video and the information relating to the alarm. The system also supports online maps (Google Maps).



### Face human Tracking

This function allows the cameras located on an online map to detect a human face and, in dynamic mode, shows its movement within the map.



### Prohibited parking

In areas where it is prohibited to park or stop a vehicle, the 'parking prohibited' function is an excellent way to detect a violation in a timely manner.

# ADVANCE SERIES

## Main functions

### DVA Deep Video Analysis

The cameras support the most complex artificial intelligence algorithms: line crossing, entering/exiting an area, object removed and abandoned, people counting, face detection, crowd detection, etc.

### IP67

The cameras are IP67 certified.

### IK10

The outdoor IP cameras adhere to IK10 vandalproof standards.

### -30 °C - 60 °C

Most IP cameras also operate in extreme temperature conditions (-30 °C /+60 °C).

### Microphone

Some IP cameras have a built-in microphone, for easier audio management.

### Onvif

ONVIF version support, profile S and profile G.

### 4 - 8 MP

4 MP to 8 MP (4K) resolution



### Fisheye

6 MP Fisheye camera with different display layouts, supported by both NVRs and by Advance VMS Software.

### TVS 6000V

The IP cameras are equipped with 6,000V protection against lightning and 2,000V overload protection.

### Alarm Inputs and Outputs

Many models have alarm inputs and outputs.

### H.265+

H265+ integrates different functions: scene recognition, a smart noise reduction algorithm and bit rate control based on macroblocks. In the majority of scenes the bit rate can be reduced by 40% (compared with the H.264 and H.265 standards). Compatible with third-party NVRs and VMS.



### Ultra Starlight

The ½" sensor increases sensitivity to light by 5 times in relation to classic cameras; it provides sharp images with a high contrast even in low lighting conditions.



### Integration of POS devices

Transaction information can be overlapped in the preview for live video and recorded video from the corresponding camera. The information recorded during transactions can be used to track down and check any errors.



### True WDR

Self-adapting ultra wide dynamic range technology, with a dynamic range up to 120 dB.

### Advance series ColorUP

ColorUP cameras use a lens with F1.0 focal length, which is able to capture just the right amount of light to ensure colour images in the dark, while the extremely sensitive sensor (0.0003 Lux) enhances their performance. The cameras have a built-in white LED light that can be dimmed or brightened directly by the user. The special video analysis algorithm built into the cameras makes it possible to categorise people and vehicles involved in perimeter intrusions, thereby eliminating false alarms generated by animals, rain, leaves or other moving objects.



### ROI (Region Of Interest) zones

It ensures image quality and detail in several zones within the scene, optimising the overall bandwidth of the video stream.



# ADVANCE SERIES

## Main functions



### Real-time alarm

Following face detection, different actions can be linked, such as: output activation, audio or pop-up triggering with a personalised message, sending of a push notification on the App, an email, a recording.



### Face access control

This solution allows access control and management in large office buildings and industrial settings. The system uses face recognition to grant or deny access to a point of entry.



### Intelligent Perimeter Protection

The DVA (Deep Video Analysis) algorithm allows the camera to accurately recognise people, vehicles and objects: false alarms generated by animals, rain, branches, etc. will be drastically reduced.



### 180° panoramic images

Multi-sensor cameras can be used to capture high-definition 180° images in any atmospheric condition. Ideal for video surveillance of a large area using just one camera.



### Parking Management

Parking management allows plate recognition, vehicle counting, validity management, etc. This function allows authorised vehicles to pass the access point without having to stop.



### Loitering

When a person stays in the selected area for a long time, the system detects it as suspicious behaviour and sends an alarm signal.

### Recording to SD Memory

Supports recording to SD card (max. 128 GB) on event and according to planned times.

### HFR (High frame rate)

Cameras with 4 MP resolution support the HFR function (2M@60 fps), ideal for critical applications where sharp still images are essential (transport, casinos, cash processing rooms, etc.).

### Differentiated Motion

Various motion sensitivity levels can be set in different areas: e.g. higher in the most important area and lower in others, where animals, wind, etc. may disturb the scene.

### Day and Night

Automatic mode manages day and night transition in complex situations and can be used to schedule time-based switching.

### Min.-Max. Shutter

The shutter can be adjusted automatically or manually, for improved performance in the scenario in use.

### SNMP

XVRs, NVRs and IP cameras support SNMP standards V1.0, 2.0 and 3.0, ideal for the network management of networking devices.

### HLC/BLC/HDR

Various backlighting compensations are available, for increased flexibility.

### 802.1X

Authentication mechanism for the installation of networking devices on the LAN.

### HTTPS

HTTPS is the secure and encrypted version of HTTP protocol, which is used to transmit data between the computer and the web browser for the camera.

### ZOOM

PTZ IP cameras reach an optical zoom up to 40X.

### 3 Streaming

All IP cameras in the Advance series support 3 Streaming.

## IP Turret 4MP



ULTRA STARLIGHT

IPTCAMA04FC/ IPTCAMA04FCB



ULTRA STARLIGHT

IPTCAMA04ZC/ IPTCAMA04ZCB

<b>Sensor</b>	1 / 3" CMOS	1 / 3" CMOS
<b>Resolution</b>	2592 x 1520 (4MP)	2592 x 1520 (4MP)
<b>Lens</b>	2.8 mm, Fixed lens	2.8-12 mm, Motorised lens with autofocus
<b>Min. Lighting (lux)</b>	0.005 (colour), 0 (black and white, IR LEDs ON)	0.005 (colour), 0 (black and white, IR LEDs ON)
<b>Day/Night</b>	Auto(ICR)/Day/Night/Timed	Auto(ICR)/Day/Night/Timed
<b>IR LEDs</b>	30 m (Smart IR)	50 m (Smart IR)
<b>WDR</b>	120 dB	120 dB
<b>Starlight</b>	Ultra Starlight	Ultra Starlight
<b>White balancing</b>	Auto/Manual/Indoor/Outdoor	Auto/Manual/Indoor/Outdoor
<b>Main Functions</b>	BLC/3D DNR/HLC	BLC/3D DNR/HLC
<b>Video Compression</b>	Smart H.265 / H.265+ / H.265 / Smart H.264 / H.264+ / H.264 /	Smart H.265 / H.265+ / H.265 / Smart H.264 / H.264+ / H.264 /
<b>Frame rate</b>	30 fps; HFR mode 60 fps	30 fps; HFR mode 60 fps
<b>Multi Streaming</b>	3 Streaming	3 Streaming
<b>Digital effects</b>	Corridor mode (90°/180°/270° rotation), defog, mirror mode (horizontal, vertical, 180° rotation), flip, lens distortion correction	Corridor mode (90°/180°/270° rotation), defog, mirror mode (horizontal, vertical, 180° rotation), flip, lens distortion correction
<b>DVA Video Analysis*</b>	Area intrusion detection (distinction between humans/vehicles), line crossing (distinction between humans/vehicles), video tampering, scene change, face detection, face capture, target counting (humans/vehicles), motion detection, heat map, metadata analysis, prohibited parking, loitering, audio anomaly	Area intrusion detection (distinction between humans/vehicles), line crossing (distinction between humans/vehicles), video tampering, scene change, face detection, face capture, target counting (humans/vehicles), motion detection, heat map, metadata analysis, prohibited parking, loitering, audio anomaly
<b>ROI zones</b>	8	8
<b>Privacy zones</b>	4	4
<b>Integration protocols</b>	ONVIF (Profile G, Profile M, Profile S, Profile T)	ONVIF (Profile G, Profile M, Profile S, Profile T)
<b>Micro SD Card slot</b>	Built-in micro SD card slot (supports up to 256 GB)	Built-in micro SD card slot (supports up to 256 GB)
<b>Alarm Inputs/Outputs</b>	/	/
<b>Audio Inputs/Outputs</b>	1 + Mic / 0	1 + Mic / 0
<b>IP rating</b>	IP67	IP67
<b>IK rating</b>	IK10	IK10
<b>Power supply</b>	12 Vdc (<7.5W)	12 Vdc (<9.5W)
<b>POE power supply</b>	Standard IEEE802.3af	Standard IEEE802.3af
<b>Operating temperature</b>	-30 °C - 60 °C < 95% RH	-30 °C - 60 °C < 95% RH
<b>Dimensions (mm)</b>	94.6 x 94.6 x 82.8	111.5 x 111.5 x 99.6
<b>Accessories</b>	White camera: JBA-TBBA, CMA-KTBBA, WMA-KTBBA, PMA-A, AMA-A, WMA-01A Black camera: JBA-TBBAB, CMA-KTBAB, WMA-KTBAB, PMA-AB, AMA-AB, WMA-01AB.	White camera: JBA-TVA, CMA-TVA, WMA-TVA, PMA-A, AMA-A, WMA-02A Black camera: JBA-TVAB, CMA-TVAB, WMA-TVAB, PMA-AB, AMA-AB, WMA-02AB.

## Dome IP 4MP



ULTRA STARLIGHT

IPKAMA04ZC



ULTRA STARLIGHT

IPKAMA04FC

<b>Sensor</b>	1 / 3" CMOS	1 / 3" CMOS
<b>Resolution</b>	2592 x 1520 (4MP)	2592 x 1520 (4MP)
<b>Lens</b>	2.8-12 mm, Motorised lens with autofocus	2.8 mm, Fixed lens
<b>Min. Lighting (lux)</b>	0.005 (colour), 0 (black and white, IR LEDs ON)	0.005 (colour), 0 (black and white, IR LEDs ON)
<b>Day/Night</b>	Auto(ICR)/Day/Night/Timed	Auto(ICR)/Day/Night/Timed
<b>IR LEDs</b>	50 m (Smart IR)	20 m (Smart IR)
<b>WDR</b>	120 dB	120 dB
<b>Starlight</b>	Ultra Starlight	Ultra Starlight
<b>White balancing</b>	Auto/Manual/Indoor/Outdoor	Auto/Manual/Indoor/Outdoor
<b>Main Functions</b>	BLC/3D DNR/HLC	BLC/3D DNR/HLC
<b>Video Compression</b>	Smart H.265 / H.265+ / H.265 / Smart H.264 / H.264+ / H.264 /	H.265+ / H.265 / H.264+ / H.264 / MJPEG H.265+ / H.265 / H.264+ / H.264
<b>Frame rate</b>	30 fps; HFR mode 60 fps	30 fps; HFR mode 60 fps
<b>Multi Streaming</b>	3 Streaming	3 Streaming
<b>Digital effects</b>	Corridor mode (90°/180°/270° rotation), defog, mirror mode (horizontal, vertical, 180° rotation), flip, lens distortion correction	Corridor mode (90°/180°/270° rotation), defog, mirror mode (horizontal, vertical, 180° rotation), flip, lens distortion correction
<b>DVA Video Analysis*</b>	Area intrusion detection (distinction between humans/vehicles), line crossing (distinction between humans/vehicles), video tampering, scene change, face detection, face capture, target counting (humans/vehicles), motion detection, heat map, metadata analysis, prohibited parking, loitering, audio anomaly	Area intrusion detection (distinction between humans/vehicles), line crossing (distinction between humans/vehicles), video tampering, scene change, face detection, face capture, target counting (humans/vehicles), motion detection, heat map, metadata analysis, prohibited parking, loitering, audio anomaly
<b>ROI zones</b>	8	8
<b>Privacy zones</b>	4	4
<b>Integration protocols</b>	ONVIF (Profile G, Profile M, Profile S, Profile T)	ONVIF (Profile G, Profile M, Profile S, Profile T)
<b>Micro SD Card slot</b>	Built-in micro SD card slot (supports up to 256 GB)	Built-in micro SD card slot (supports up to 256 GB)
<b>Alarm Inputs/Outputs</b>	1 / 1	/
<b>Audio Inputs/Outputs</b>	1 + Mic / 1	1 + Mic / 0
<b>IP rating</b>	IP67	IP66
<b>IK rating</b>	IK10	IK10
<b>Power supply</b>	12 Vdc (<8W)	12 Vdc (<6W)
<b>POE power supply</b>	Standard IEEE802.3af	Standard IEEE802.3af
<b>Operating temperature</b>	-30 °C - 60 °C < 95% RH	-30 °C - 60 °C < 95% RH
<b>Dimensions (mm)</b>	141 x 141 x 100.2	59.8 x 59.8 x 110
<b>Accessories</b>	JBA-BA, CMA-BA, WMA-BA, PMA-A, AMA-A.	WMA-01A

IP Bullet 4MP



ULTRA STARLIGHT

**IPBCAMA04FC**  
**IPBCAMA04FCB**



ULTRA STARLIGHT

**IPBCAMA04ZC**  
**IPBCAMA04ZCB**



ULTRA STARLIGHT

**IPBCAMA04Z01C**

<b>Sensor</b>	1 / 3" CMOS	1 / 3" CMOS	1 / 3" CMOS
<b>Resolution</b>	2592 x 1520 (4MP)	2592 x 1520 (4MP)	2592 x 1520 (4MP)
<b>Lens</b>	2.8 mm, Fixed lens	2.8-12 mm, Motorised lens with autofocus	2.8-12 mm, Motorised lens with autofocus
<b>Min. Lighting (lux)</b>	0.005 (colour), 0 (black and white, IR LEDs ON)	0.005 (colour), 0 (black and white, IR LEDs ON)	0.005 (colour), 0 (black and white, IR LEDs ON)
<b>Day/Night</b>	Auto(ICR)/Day/Night/Timed	Auto(ICR)/Day/Night/Timed	Auto(ICR)/Day/Night/Timed
<b>IR LEDs</b>	50 m (Smart IR)	50 m (Smart IR)	70 m (Smart IR)
<b>WDR</b>	120 dB	120 dB	120 dB
<b>Starlight</b>	Ultra Starlight	Ultra Starlight	Ultra Starlight
<b>White balancing</b>	Auto/Manual/Indoor/Outdoor	Auto/Manual/Indoor/Outdoor	Auto/Manual/Indoor/Outdoor
<b>Main Functions</b>	BLC/3D DNR/HLC	BLC/3D DNR/HLC	BLC/3D DNR/HLC
<b>Video Compression</b>	Smart H.265 / H.265+ / H.265 / Smart H.264 / H.264+ / H.264 / MJPEG	Smart H.265 / H.265+ / H.265 / Smart H.264 / H.264+ / H.264 / MJPEG	Smart H.265 / H.265+ / H.265 / Smart H.264 / H.264+ / H.264 / MJPEG
<b>Frame rate</b>	30 fps; HFR mode 60 fps	30 fps; HFR mode 60 fps	30 fps; HFR mode 60 fps
<b>Multi Streaming</b>	3 Streaming	3 Streaming	3 Streaming
<b>Digital effects</b>	Corridor mode (90°/180°/270° rotation), defog, mirror mode (horizontal, vertical, 180° rotation), flip, lens distortion correction	Corridor mode (90°/180°/270° rotation), defog, mirror mode (horizontal, vertical, 180° rotation), flip, lens distortion correction	Corridor mode (90°/180°/270° rotation), defog, mirror mode (horizontal, vertical, 180° rotation), flip, lens distortion correction
<b>DVA Video Analysis*</b>	Area intrusion detection (distinction between humans/vehicles), line crossing (distinction between humans/vehicles), video tampering, scene change, face detection, face capture, target counting (humans/vehicles), motion detection, heat map, metadata analysis, prohibited parking, loitering, audio anomaly	Area intrusion detection (distinction between humans/vehicles), line crossing (distinction between humans/vehicles), video tampering, scene change, face detection, face capture, target counting (humans/vehicles), motion detection, heat map, metadata analysis, prohibited parking, loitering, audio anomaly	Area intrusion detection (distinction between humans/vehicles), line crossing (distinction between humans/vehicles), video tampering, scene change, face detection, face capture, target counting (humans/vehicles), motion detection, heat map, metadata analysis, prohibited parking, loitering, audio anomaly
<b>ROI zones</b>	8	8	8
<b>Privacy zones</b>	4	4	4
<b>Integration protocols</b>	ONVIF (Profile G, Profile M, Profile S, Profile T)	ONVIF (Profile G, Profile M, Profile S, Profile T)	ONVIF (Profile G, Profile M, Profile S, Profile T)
<b>Micro SD Card slot</b>	Built-in micro SD card slot (supports up to 256 GB)	Built-in micro SD card slot (supports up to 256 GB)	Built-in micro SD card slot (supports up to 256 GB)
<b>Alarm Inputs/Outputs</b>	/	/	1 / 1
<b>Audio Inputs/Outputs</b>	1 / 0	1 / 0	1 / 1
<b>IP rating</b>	IP67	IP67	IP67
<b>IK rating</b>	IK10	IK10	IK10
<b>Power supply</b>	12 Vdc (<9.5W)	12 Vdc (<12W)	12 Vdc (<10W)
<b>POE power supply</b>	Standard IEEE802.3af	Standard IEEE802.3af	Standard IEEE802.3af
<b>Operating temperature</b>	-30 °C - 60 °C < 95% RH	-30 °C - 60 °C < 95% RH	-30 °C - 60 °C < 95% RH
<b>Dimensions (mm)</b>	217.7 x 80.5 x 80.5	217.7 x 80.5 x 80.5	279.5 x 100.3 x 88.9
<b>Accessories</b>	White camera: JBA-BA, CMA-BA, WMA-BA, PMA-A, AMA-A. Black camera: JBA-BAB, CMA-BAB, WMA-BAB, PMA-AB, AMA-AB.	White camera: JBA-BA, CMA-BA, WMA-BA, PMA-A, AMA-A. Black camera: JBA-BAB, CMA-BAB, WMA-BAB, PMA-AB, AMA-AB.	JBA-TBBA, CMA-KTBBA, WMA-KTBBA, PMA-A, AMA-A.

Turret/Dome IP 8MP



ULTRA STARLIGHT

**IPTCAMA08FC**



ULTRA STARLIGHT

**IPTCAMA08ZC**



ULTRA STARLIGHT

**IPKCAMA08ZC**

<b>Sensor</b>	1 / 2.8" CMOS	1 / 2.8" CMOS	1 / 2.8" CMOS
<b>Resolution</b>	3840 x 2160 (8MP)	3840 x 2160 (8MP)	3840 x 2160 (8MP)
<b>Lens</b>	2.8 mm, Fixed lens	2.8-12 mm, Motorised lens with autofocus	2.8-12 mm, Motorised lens with autofocus
<b>Min. Lighting (lux)</b>	0.01 (colour), 0 (black and white, IR LEDs ON)	0.01 (colour), 0 (black and white, IR LEDs ON)	0.01 (colour), 0 (black and white, IR LEDs ON)
<b>Day/Night</b>	Auto(ICR)/Day/Night/Timed	Auto(ICR)/Day/Night/Timed	Auto(ICR)/Day/Night/Timed
<b>IR LEDs</b>	30 m (Smart IR)	50 m (Smart IR)	50 m (Smart IR)
<b>WDR</b>	120 dB	120 dB	120 dB
<b>Starlight</b>	Ultra Starlight	Ultra Starlight	Ultra Starlight
<b>White balancing</b>	Auto/Manual/Indoor/Outdoor	Auto/Manual/Indoor/Outdoor	Auto/Manual/Indoor/Outdoor
<b>Main Functions</b>	BLC/3D DNR/HLC	BLC/3D DNR/HLC	BLC/3D DNR/HLC
<b>Video Compression</b>	Smart H.265 / H.265+ / H.265 / Smart H.264 / H.264+ / H.264 / MJPEG	Smart H.265 / H.265+ / H.265 / Smart H.264 / H.264+ / H.264 / MJPEG	Smart H.265 / H.265+ / H.265 / Smart H.264 / H.264+ / H.264 / MJPEG
<b>Frame rate</b>	20 fps; HFR mode 60 fps	20 fps; HFR mode 60 fps	20 fps; HFR mode 60 fps
<b>Multi Streaming</b>	3 Streaming	3 Streaming	3 Streaming
<b>Digital effects</b>	Corridor mode (90°/180°/270° rotation), defog, mirror mode (horizontal, vertical, 180° rotation)	Corridor mode (90°/180°/270° rotation), defog, mirror mode (horizontal, vertical, 180° rotation)	Corridor mode (90°/180°/270° rotation), defog, mirror mode (horizontal, vertical, 180° rotation)
<b>Video Analysis</b>	Area intrusion detection (distinction between humans/vehicles), line crossing (distinction between humans/vehicles), video tampering, scene change, face detection, face capture, target counting (humans/vehicles), motion detection, heat map, metadata analysis, prohibited parking, loitering, audio anomaly	Area intrusion detection (distinction between humans/vehicles), line crossing (distinction between humans/vehicles), video tampering, scene change, face detection, face capture, target counting (humans/vehicles), motion detection, heat map, metadata analysis, prohibited parking, loitering, audio anomaly	Area intrusion detection (distinction between humans/vehicles), line crossing (distinction between humans/vehicles), video tampering, scene change, face detection, face capture, target counting (humans/vehicles), motion detection, heat map, metadata analysis, prohibited parking, loitering, audio anomaly
<b>ROI zones</b>	8	8	8
<b>Privacy zones</b>	4	4	4
<b>Integration protocols</b>	ONVIF (Profile G, Profile M, Profile S, Profile T)	ONVIF (Profile G, Profile M, Profile S, Profile T)	ONVIF (Profile G, Profile M, Profile S, Profile T)
<b>Micro SD Card slot</b>	Built-in micro SD card slot (supports up to 256 GB)	Built-in micro SD card slot (supports up to 256 GB)	Built-in micro SD card slot (supports up to 256 GB)
<b>Alarm Inputs/Outputs</b>	/	/	1 / 1
<b>Audio Inputs/Outputs</b>	1 + Mic / 0	1 + Mic / 0	1 + Mic / 1
<b>IP rating</b>	IP67	IP67	IP67
<b>IK rating</b>	IK10	IK10	IK10
<b>Power supply</b>	12 Vdc (<6W)	12 Vdc (<9W)	12 Vdc (<9W)
<b>POE power supply</b>	Standard IEEE802.3af	Standard IEEE802.3af	Standard IEEE802.3af
<b>Operating temperature</b>	-30 °C - 60 °C < 95% RH	-30 °C - 60 °C < 95% RH	-30 °C - 60 °C < 95% RH
<b>Dimensions (mm)</b>	94.6 x 94.6 x 82.8	111.5 x 111.5 x 99.6	141 x 141 x 100.2
<b>Accessories</b>	JBA-TBBA, CMA-KTBBA, WMA-KTBBA, PMA-A, AMA-A, WMA-01A	JBA-TVA, CMA-TVA, WMA-TVA, PMA-A, AMA-A, WMA-02A	JBA-KA, CMA-KTBBA, WMA-KTBBA, PMA-A, AMA-A.

## ADVANCE SERIES

### IP Bullet 8MP



ULTRA STARLIGHT

**IPBCAMA08FC**



ULTRA STARLIGHT

**IPBCAMA08Z01C**

<b>Sensor</b>	1 / 2.8" CMOS	1 / 2.8" CMOS
<b>Resolution</b>	3840 x 2160 (8MP)	3840 x 2160 (8MP)
<b>Lens</b>	2.8 mm, Fixed lens	2.8-12 mm, Motorised lens with autofocus
<b>Min. Lighting (lux)</b>	0.01 (colour), 0 (black and white, IR LEDs ON)	0.01 (colour), 0 (black and white, IR LEDs ON)
<b>Day/Night</b>	Auto(ICR)/Day/Night/Timed	Auto(ICR)/Day/Night/Timed
<b>IR LEDs</b>	50 m (Smart IR)	70 m (Smart IR)
<b>WDR</b>	120 dB	120 dB
<b>Starlight</b>	Ultra Starlight	Ultra Starlight
<b>White balancing</b>	Auto/Manual/Indoor/Outdoor	Auto/Manual/Indoor/Outdoor
<b>Main Functions</b>	BLC/3D DNR/HLC	BLC/3D DNR/HLC
<b>Video Compression</b>	Smart H.265 / H.265+ / H.265 / Smart H.264 / H.264+ / H.264 / MJPEG	Smart H.265 / H.265+ / H.265 / Smart H.264 / H.264+ / H.264 / MJPEG
<b>Frame rate</b>	20 fps; HFR mode 60 fps	20 fps; HFR mode 60 fps
<b>Multi Streaming</b>	3 Streaming	3 Streaming
<b>Digital effects</b>	Corridor mode (90°/180°/270° rotation), defog, mirror mode (horizontal, vertical, 180° rotation)	Corridor mode (90°/180°/270° rotation), defog, mirror mode (horizontal, vertical, 180° rotation)
<b>DVA Video Analysis*</b>	Area intrusion detection (distinction between humans/vehicles), line crossing (distinction between humans/vehicles), video tampering, scene change, face detection, face capture, target counting (humans/vehicles), motion detection, heat map, metadata analysis, prohibited parking, loitering, audio anomaly	Area intrusion detection (distinction between humans/vehicles), line crossing (distinction between humans/vehicles), video tampering, scene change, face detection, face capture, target counting (humans/vehicles), motion detection, heat map, metadata analysis, prohibited parking, loitering, audio anomaly
<b>ROI zones</b>	8	8
<b>Privacy zones</b>	4	4
<b>Integration protocols</b>	ONVIF (Profile G, Profile M, Profile S, Profile T)	ONVIF (Profile G, Profile M, Profile S, Profile T)
<b>Micro SD Card slot</b>	Built-in micro SD card slot (supports up to 256 GB)	Built-in micro SD card slot (supports up to 256 GB)
<b>Alarm Inputs/Outputs</b>	/	1 / 1
<b>Audio Inputs/Outputs</b>	1 / 0	1 / 1
<b>IP rating</b>	IP67	IP67
<b>IK rating</b>	IK10	IK10
<b>Power supply</b>	12 Vdc (<9.5W)	12 Vdc (<10W)
<b>POE power supply</b>	Standard IEEE802.3af	Standard IEEE802.3af
<b>Operating temperature</b>	-30 °C - 60 °C < 95% RH	-30 °C - 60 °C < 95% RH
<b>Dimensions (mm)</b>	217.7 x 80.5 x 80.5	279.5 x 100.3 x 88.9
<b>Accessories</b>	JBA-BA, CMA-BA, WMA-BA, PMA-A, AMA-A.	JBA-TBBA, CMA-KTBBA, WMA-KTBBA, PMA-A, AMA-A.

### Bullet ColorUP



ULTRA STARLIGHT

**IPBCAMA04FCUB**



ULTRA STARLIGHT

**IPBCAMA04ZCUB**

<b>Sensor</b>	1 / 3" CMOS	1 / 3" CMOS
<b>Resolution</b>	2592 x 1520 (4MP)	2560 x 1440 (4MP)
<b>Lens</b>	2.8 mm, Fixed lens	2.8-12 mm, Motorised lens with autofocus
<b>Min. Lighting (lux)</b>	0.0005 (colour @F1.0), 0 with LED light on	0.0005 (colour @F1.4), 0 with LED light on
<b>Day/Night</b>	Auto(ICR)/Day/Night/Timed	Auto(ICR)/Day/Night/Timed
<b>Dual Light function</b>	/	Yes
<b>White LED</b>	40 m	40 m
<b>IR LEDs</b>	/	40 m (Smart IR)
<b>WDR</b>	120 dB	120 dB
<b>White balancing</b>	Auto/Manual/Indoor/Outdoor	Auto/Manual/Indoor/Outdoor
<b>Main Functions</b>	BLC/3D DNR/HLC	BLC/3D DNR/HLC
<b>Video Compression</b>	H.265 / H.264 / MJPEG	H.265 / H.264 / MJPEG
<b>Frame rate</b>	30 fps	30 fps
<b>Multi Streaming</b>	3 Streaming	3 Streaming
<b>Digital effects</b>	Corridor mode (90°/180°/270° rotation), mirror mode (horizontal, vertical, 180° rotation), flip	Corridor mode (90°/180°/270° rotation), mirror mode (horizontal, vertical, 180° rotation), flip
<b>Video Analysis</b>	Area intrusion detection (distinction between humans/vehicles), line crossing (distinction between humans/vehicles), video tampering, scene change, motion detection	Area intrusion detection (distinction between humans/vehicles), line crossing (distinction between humans/vehicles), video tampering, scene change, motion detection
<b>ROI zones</b>	8	8
<b>Privacy zones</b>	4	4
<b>Integration protocols</b>	ONVIF (Profile G, Profile S, Profile T)	ONVIF (Profile G, Profile S, Profile T)
<b>Micro SD Card slot</b>	Built-in micro SD card slot (supports up to 256 GB)	Built-in micro SD card slot (supports up to 256 GB)
<b>Alarm Inputs/Outputs</b>	/	/
<b>Audio Inputs/Outputs</b>	1 + Mic / 0	1 + Mic / 0
<b>IP rating</b>	IP67	IP67
<b>IK rating</b>	IK10	IK10
<b>Power supply</b>	12 Vdc (<10W)	12 Vdc (<10W)
<b>POE power supply</b>	Standard IEEE802.3af	Standard IEEE802.3af
<b>Operating temperature</b>	-30 °C - 60 °C < 95% RH	-30 °C - 60 °C < 95% RH
<b>Dimensions (mm)</b>	217.8 x 80.5 x 80.3	217.8 x 80.5 x 80.3
<b>Accessories</b>	JBA-BA, CMA-BA, WMA-BA, PMA-A, AMA-A.	JBA-BA, CMA-BA, WMA-BA, PMA-A, AMA-A.



# IPLPRA04ZSWA

## License plate reading camera

The IPLPRA04ZSSWA camera represents an important evolution in license plate reading systems. In addition to the already well known features of the previous version, (license plate recognition up to 90 Km/h, authorized license plate management, time slots, blacklist) it **integrates the Wiegand W26 standard** to allow interfacing with Access Control systems. Therefore, the camera becomes an „intelligent“ reader that when reading ANPR (Automatic Number Plate Recognition) matches the plate to a customisable identification code that is sent to the control unit as a credential for the access control system. Then it will be a task for the **access control system** to verify that the license plate/code has the necessary permissions to access the gate/parking lot. The camera is integrated into the Comelit PAC access control and can handle up to a maximum of 9999 license plates per individual gate.



**THE IPLPRA04ZSSWA CAMERA REPRESENTS AN IMPORTANT EVOLUTION IN READING SYSTEMS AS IT INTEGRATES THE WIEGAND W26 STANDARD TO ENABLE INTERFACING WITH ACCESS CONTROL SYSTEMS.**



### ADVANCE SERIES

#### Plate reading



ULTRA STARLIGHT

#### IPLPRA04ZSWA

Sensor	1 / 1.8" CMOS
Resolution	2592 x 1520 (4MP)
Lens	8-32 mm, Motorised lens with autofocus
Min. Lighting (lux)	0,001 (colour), 0 (black and white, IR LEDs ON)
Day/Night	Auto(ICR)/Day/Night/Timed
IR	70 m (Smart IR)
WDR	WDR, 120dB
Starlight	Ultra starlight
White balancing	Auto/Manual/Indoor/Outdoor
BLC/DNR/HLC	BLC/3D DNR/HLC
Video Compression	H.265+ / H.265 / H.264+ / H.264 / MJPEG
Frame rate	30 fps; HFR mode 60 fps
Multi Streaming	3 Streaming
Digital effects	Corridor mode, mirror mode
Video Analysis	Automatic number plate recognition, scene change, motion detection
Max speed license plate detection	90 km/h
White/Black List	10000
Supported states/countries	USA: California, Colorado, Florida, Georgia, Iowa, Illinois, Kentucky, Louisiana, Massachusetts, Michigan, Minnesota, North Carolina, New Jersey, New Mexico, Nevada, New York, Ohio, Oregon, Pennsylvania, Texas, Virginia, Washington, Wisconsin. Europe: Belgium, Bulgaria, Croatia, Germany, United Kingdom, France, Spain, Greece, Hungary, Italy, Poland, Romania, Russia Others: Israel
ROI zones	8
Privacy zones	4
Integration protocols	ONVIF (Profile S, Profile G)
Wiegand	Standard W26
Micro SD Card slot	Built-in micro SD card slot (supports up to 256 GB)
Alarm Inputs/Outputs	1 / 1
Audio Inputs/Outputs	1 / 1
IP rating	IP67
IK rating	IK10
Power supply	12 Vdc (<12W)
POE power supply	Standard IEEE802.3af
Operating temperature	-30 °C - 60 °C < 95% RH
Dimensions (mm)	100.2 x 88.7 x 278.3
Accessories	JBA-TBBA, CMA-KTBBA, WMA-KTBBA, PMA-A, AMA-A.

## Fisheye



ULTRA STARLIGHT

### IPFCAMA12FA

Sensor	1 / 1.7" CMOS
Resolution	1000 x 3000 (6MP)
Lens	1.65 mm, Fixed lens
Min. Lighting (lux)	0.01 (colour), 0 (black and white, IR LEDs ON)
Day/Night	Auto(ICR)/Day/Night/Timed
IR	20 m (Smart IR)
WDR	Digital WDR
White balancing	Auto/Manual/Indoor/Outdoor
BLC/DNR/HLC	BLC/3D DNR/HLC
Video Compression	H.265+ / H.265 / H.264+ / H.264 MJPEG
Frame rate	20 fps
Multi Streaming	3 Streaming
Digital effects	Corridor mode, mirror mode
Video Analysis	Entry into/Exit from/Intrusion into an area (distinction between humans/vehicles), line crossing (distinction between humans/vehicles), video tampering, scene change, target counting (humans/vehicles), motion detection, heat map.
ROI zones	8
Privacy zones	4
Integration protocols	ONVIF (Profile S, Profile G)
Micro SD Card slot	Built-in micro SD card slot (supports up to 256 GB)
Alarm Inputs/Outputs	1 / 1
Audio Inputs/Outputs	1 + Mic / 1
IP rating	IP67
IK rating	IK10
Power supply	12 Vdc (<10.5W)
POE power supply	Standard IEEE802.3af
Operating temperature	-30 °C - 50 °C < 95% RH
Dimensions (mm)	46.3 x 130.6 x 130.6
Accessories	JBA-FA, CMA-FA, WMA-FA, PMA-A, AMA-A.

## Multi-sensor



ULTRA STARLIGHT

### IPSCAMA08F04A

Sensor	4 x 2.8" Progressive Scan CMOS
Resolution	4096 x 1800 (8MP)
Lens	3.3 mm, Fixed lens
Min. Lighting (lux)	0.03 (colour), 0 (black and white, IR LEDs ON)
Day/Night	Auto(ICR)/Day/Night/Timed
IR LEDs	20-30 m (Smart IR)
WDR	D-WDR 100dB
Starlight	Ultra starlight
White balancing	Auto/Manual/Indoor/Outdoor
Main Functions	BLC/3D DNR/HLC
Video Compression	H.265 / H.264 / MJPEG
Frame rate	30 fps
Multi Streaming	Triple streaming
Digital effects	Corridor mode (90°/180°/270° rotation), defog, mirror mode (horizontal, vertical, 180° rotation)
Video Analysis	Area intrusion detection (distinction between humans/vehicles), line crossing (distinction between humans/vehicles), video tampering, scene change, face detection, face capture, target counting (humans/vehicles), motion detection, heat map
ROI zones	8
Privacy zones	4
Integration protocols	ONVIF (Profile S, Profile G)
Micro SD Card slot	Built-in micro SD card slot (supports up to 128 GB)
Alarm Inputs/Outputs	1 / 1
Audio Inputs/Outputs	1 / 1
IP rating	IP67
IK rating	IK10
Power supply	12 Vdc (<12W)
POE power supply	Standard IEEE802.3af
Operating temperature	-30 °C - 50 °C < 95% RH
Dimensions (mm)	96 x 159.7 x 288.4
Accessories	JBA-KA, CMA-KTBBA, WMA-KTBBA, PMA-A, AMA-A.

WiFi



WICAMA02FA

Sensor	1 / 2.7" CMOS
Resolution	1920 x 1080 (2MP)
Lens	2.8 mm, Fixed lens
Min. Lighting (lux)	0.03 (colour), 0 (black and white, IR LEDs ON)
IR LEDs	10 m (Smart IR)
Day/Night	Auto(ICR)/Day/Night/Timed
WDR	D-WDR 100dB
White balancing	Auto/Manual/Indoor/Outdoor
Main Functions	BLC/3D DNR/ HLC
Video Compression	H.265 / H.264 / MJPEG
Frame rate	30 fps
Multi Streaming	3 Streaming
Digital effects	Corridor mode (90°/180°/270° rotation), defog, mirror mode (horizontal, vertical, 180° rotation)
Video analysis	Line crossing, scene change, intrusion, motion detection
PIR range	Horizontal angle: 100°, Range 7 m
ROI zones	8
Privacy zones	4
Integration protocols	ONVIF (Profile S, Profile G)
Wireless standards	IEEE802.11b/g/n
Frequency range	2.4 GHz - 2.4835 GHz
Safety	WEP, WPA
Wireless range	50 m
Micro SD Card slot	Built-in micro SD card slot (supports up to 128 GB)
Alarm Inputs/Outputs	1 / 1
Audio Inputs/Outputs	1 + Mic / 1 + Speaker
IP rating	Indoor use
IK rating	/
Power supply	12 Vdc (<4.5W)
POE power supply	Standard IEEE802.3af
Operating temperature	-10 °C - 45 °C < 95% RH
Dimensions (mm)	130 x 71.7 x 71.7
Accessories	/

WiFi



WIBCAMA04FB

Sensor	1 / 2.7" CMOS
Resolution	2688 x 1520 (4MP)
Lens	2.8 mm, Fixed lens
Min. Lighting (lux)	0.01 (colour), 0 (black and white, IR LEDs ON)
IR LEDs	20 m (Smart IR)
Day/Night	Auto(ICR)/Day/Night/Timed
WDR	D-WDR 100dB
White balancing	Auto/Manual/Indoor/Outdoor
Main Functions	BLC/3D DNR/ HLC
Video Compression	H.265 / H.264
Frame rate	25 fps
Multi Streaming	3 Streaming
Digital effects	Defog, ROI zones
Video analysis	Line crossing, Area intrusion, Scene change detection
ROI zones	8
Privacy zones	4
Integration protocols	ONVIF (Profile S, Profile G)
Wireless standards	IEEE802.11b/g/n
Frequency range	2.4 GHz - 2.4835 GHz
Safety	WEP, WPA, WPA2
Micro SD Card slot	Built-in micro SD card slot (supports up to 256 GB)
Alarm Inputs/Outputs	/
Audio Inputs/Outputs	1 / 0
IP rating	IP67
Power supply	12 Vdc
POE power supply	Standard IEEE802.3af
Operating temperature	-30 °C - 60 °C < 95% RH
Dimensions (mm)	167.6 x 74.7 x 74.7
Accessories	JBA-BA, CMA-BA, WMA-BA, PMA-A, AMA-A.

## ADVANCE SERIES

5-50 mm



ULTRA STARLIGHT

### IPBCAMA04Z550C

Sensor	1 / 3" CMOS
Resolution	2592 x 1520 (4MP)
Lens	5-50 mm Motorised lens with autofocus
Min. Lighting (lux)	0.005 (colour), 0 (black and white, IR LEDs ON)
Day/Night	Auto(ICR)/Day/Night/Timed
IR LEDs	70 m (Smart IR)
WDR	120 dB
Starlight	Ultra starlight
White balancing	Auto/Manual/Indoor/Outdoor
Main Functions	BLC/3D DNR/HLC
Video Compression	Smart H.265 / H.265+ / H.265 / Smart H.264 / H.264+ / H.264 / MJPEG
Frame rate	30 fps; HFR mode 60 fps
Multi Streaming	3 Streaming
Digital effects	Corridor mode (90°/180°/270° rotation), defog, mirror mode (horizontal, vertical, 180° rotation), flip, lens distortion correction
Video Analysis	Area intrusion detection (distinction between humans/vehicles), line crossing (distinction between humans/vehicles), video tampering, scene change, face detection, face capture, target counting (humans/vehicles), motion detection, heat map, metadata analysis, prohibited parking, loitering, audio anomaly
ROI zones	8
Privacy zones	4
Integration protocols	ONVIF (Profile G, Profile M, Profile S, Profile T)
Micro SD Card slot	Built-in micro SD card slot (supports up to 256 GB)
Alarm Inputs/Outputs	1 / 1
Audio Inputs/Outputs	1 / 1
IP rating	IP67
IK rating	IK10
Power supply	12 Vdc (<10W)
POE power supply	Standard IEEE802.3af
Operating temperature	-30 °C - 60 °C < 95% RH
Dimensions (mm)	279.5 x 100.3 x 88.9
Accessories	JBA-TBBA, CMA-KTBBA, WMA-KTBBA, PMA-A, AMA-A.

PTZ



ULTRA STARLIGHT

### IPPTZA04Z04A

Sensor	1/2.7" CMOS	1/2.7" CMOS
Resolution	2560 x 1440 (4MP)	2560 x 1440 (2MP)
Zoom	4X optical zoom	25X optical zoom
Min. Lighting (lux)	0.01 (colour), 0 (black and white, IR LEDs ON)	0,005 (colour), 0 (black and white, IR LEDs ON)
Day/Night	Auto(ICR)/Day/Night/Timed	Auto(ICR)/Day/Night/Timed
IR LEDs	50 m (Smart IR)	150 m (Smart IR)
Deterrent LED	YES	/
WDR	WDR, 120dB	WDR, 120dB
Starlight	Ultra starlight	Ultra starlight
White balancing	Auto/Manual/Indoor/Outdoor	Auto/Manual/Indoor/Outdoor
Main Functions	BLC/3D DNR/HLC	BLC/3D DNR/HLC
Video Compression	Smart H.265+/H.265/H.264+/H.264/MJPEG	H.265+/H.265/H.264+/H.264/MJPEG
Frame rate	30 fps	30 fps
Multi Streaming	3 Streaming	3 Streaming
Digital effects	Defog, mirror mode (horizontal, vertical, 180° rotation)	Corridor mode, mirror mode
Video Analysis	Area intrusion detection (distinction between humans/vehicles), line crossing (distinction between humans/vehicles), video tampering, scene change, face detection, face capture, target counting (humans/vehicles), motion detection, auto tracking (human/vehicle)	Area intrusion detection (distinction between humans/vehicles), line crossing (distinction between humans/vehicles), video tampering, scene change, auto tracking (humans/vehicles)
Privacy zones	8	4
Pan	360°	360°
Tilt	-5° / 93°	-10° / 90°
Schedule Task	Preset/Cruise/Trace	Preset/Cruise/Trace
Integration protocols	ONVIF (Profile S, Profile G)	ONVIF (Profile S, Profile G)
Micro SD Card slot	Built-in micro SD card slot (supports up to 256 GB)	Micro SD card slot (supports up to 256 GB)
Alarm Inputs/Outputs	1 / 1	1 / 1
Audio Inputs/Outputs	1 + Mic / 1 + Speaker	1 / 1
IP rating	IP66	IP66
IK rating	IK10	IK10
Power supply	12 Vdc (<25W)	12 Vdc (<23W)
POE power supply	Standard IEEE 802.3at (class 4)	Standard IEEE 802.3at (class 4)
Operating temperature	-30 °C - 60 °C < 95% RH	-30 °C - 60 °C < 95% RH
Dimensions (mm)	162 x 130 x 130	268 x 173 x 173
Accessories	JBA-FA, CMA-FA, WMA-FA, PMA-A, AMA-A.	CMA-PTZA, PMA-A, AMA-A, AMAJB-A, PMAJB-A, CMA-PTZ02A



ULTRA STARLIGHT

### IPPTZA04Z25A



# ADVANCE SERIES

## NVR / XVR

### Main Functions

#### 12MP

NVRs can record videos in real time with a maximum resolution of up to 12MP.

#### DUAL LAN

The dual network card can be used to balance band saturation.

#### Dual Video Output

NVRs support the HDMI and VGA dual video output. Some models also have an independent dual HDMI output (HDMI1@1080P e HDMI2@4K) as well as the VGA output.

#### E-SATA

If necessary, the E-Sata port can be used to connect additional storage devices.

#### HDD

NVRs support up to 16 HDDs. The maximum capacity for each HDD is 8TB. The status of each HDD can be monitored using the S.M.A.R.T. function. RAID support.

#### Hot Swap

For simple management and maintenance, HDDs can be replaced or added in 16 HDD models without requiring a system restart or power-down.

#### DVA

The NVR supports all DVA functions.

#### Storage Group

In XVR/NVR models with more than one HDD, the user can pair cameras/HDDs to achieve improved service continuity.

#### Recording duration on a single channel

The recording duration before overwriting can be set on each camera connected to the NVR.

#### 5 in 1

XVRs support various technologies: AHD, TVI, CVI, analogue and IP.

#### From analogue to IP

The analogue channel can be flexibly switched to the IP channel.

#### USB Alarm

XVRs/NVRs support the expansion module with 16 inputs and 6 alarm outputs.

#### Smart search

Used to quickly search for events. DVA technology also makes it possible to perform specific searches by filtering people and vehicles.

#### PoE Long range

PoE NVRs, thanks to the LONG RANGE function, support PoE transmission up to 180 metres.

#### Parking management

A car park can be managed directly via NVR: spaces available, dwell times and scheduling for groups of plates.

#### Alarm system integration

The arming / disarming function makes it possible to control the triggers of the CCTV system such as push notifications, recordings and sounders.





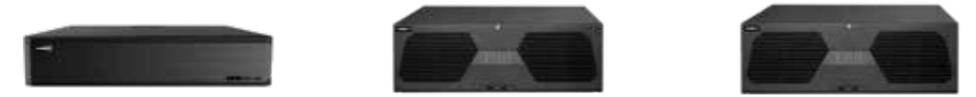
NVR Poe



	NIPNVR004A08PA NIPNVR004A08PASL	NIPNVR008A12PA NIPNVR008A12PASL	NIPNVR016A12PA NIPNVR016A12PASL
IP Cameras	4ch	8ch	16ch
Max. Recording resolution	4@8MP/6MP/5MP/4MP/3MP/1080P/1280x1024/960P/720P/960H/D1/CIF	8CH@12MP/8MP/6MP/5MP/4MP/3MP/1080P/1280x1024/960P/720P/960H/D1/CIF	16CH@12MP/8MP/6MP/5MP/4MP/3MP/1080P/1280 1024/960P/720P/960H/D1/CIF
POE ports	4 x Ethernet (10/100 Mbps ) PoE (IEEE802.3AF/AT)	8 x Ethernet (10/100 Mbps ) PoE (IEEE802.3AF/AT)	16 x Ethernet (10/100 Mbps ) PoE (IEEE802.3AF/AT)
Video outputs	1 HDMI (4K), 1 VGA (1920x1080)	1 HDMI (4K), 1 VGA (1920x1080)	1 HDMI (4K), 1 VGA (1920x1080)
Audio Inputs/Outputs	1CH input; 1CH output, RCA	1CH input; 1CH output, RCA	1CH input; 1CH output, RCA
Recording type	Dual Streaming	Dual Streaming	Dual Streaming
Video Compression	H.265S/H.265+/H.265/H.264	H.265S/H.265+/H.265/H.264	H.265S/H.265+/H.265/H.264
Audio Compression	G.711 (U/A)	G.711 (U/A)	G.711 (U/A)
Recording Rate	Main stream: 8MP/6MP/5MP/4MP/3MP/1080P/1280x1024/960P/720P/960H/D1/CIF (1-25/30 fps) (PAL/NTSC) Sub stream: 1080P/960P/720P/D1/CIF (1-25/30 fps) (PAL/NTSC)	Main stream: 12MP/8MP/6MP/5MP/4MP/3MP/1080P/1280x1024/960P/720P/960H/D1/CIF (1-25/30 fps) (PAL/NTSC) Sub stream: 1080P/960P/720P/D1/CIF (1-25/30 fps) (PAL/NTSC)	Main stream: 12MP/8MP/6MP/5MP/4MP/3MP/1080P/1280x1024/960P/720P/960H/D1/CIF (1-25/30 fps) (PAL/NTSC) Sub stream: 1080P/960P/720P/D1/CIF (1-25/30 fps) (PAL/NTSC)
Synchronised playback	1CH 8MP / 4CH 1080P	1CH 12MP / 4CH 4MP / 8CH 720P	1CH 12MP / 4CH 4MP / 9CH 720P / 16CH D1
Video Analysis	Video analysis (only with dedicated cameras)	Video analysis (only with dedicated cameras)	Video analysis (only with dedicated cameras)
HDD interface	1 SATA, (Maximum Hard Disk capacity 10TB)	1 SATA, (Maximum Hard Disk capacity 10TB)	2 SATA, (Maximum Hard Disk capacity 10TB)
HDD included	NIPNVR004A08PA: 1TB NIPNVR004A08PASL: no HDD	NIPNVR008A12PA: 1TB NIPNVR008A12PASL: no HDD	NIPNVR016A12PA: 2TB NIPNVR016A12PASL: no HDD
eSATA	/	/	/
Bandwidth	80 Mbps	160 Mbps	192Mbps
Integration protocols	ONVIF (Profile S, T, G)	ONVIF (Profile S, T, G)	ONVIF (Profile S, T, G)
Max. simultaneous connections	64	64	64
Alarm Inputs/Outputs	/	8/4	8/4
Network interface	RJ 45 x 1 (10/100/1000 Mbps)	RJ 45 x 1 (10/100/1000 Mbps)	RJ 45 x 1 (10/100/1000 Mbps)
Serial ports	2 x USB 2.0	RS-485 / 2x USB 2.0 / 1x USB 3.0	RS-485 / 2x USB 2.0 / 1x USB 3.0
Power supply	DC 48V/1.25A	DC 48V/2.5A	DC 48V/3.75A
Operating temperature	-10 °C - 50 °C < 90% RH	-10 °C - 50 °C < 90% RH	-10 °C - 50 °C < 90% RH
Dimensions (mm) HxWxD	45 x 249 x 300	45 x 249 x 300	45 x 268 x 380
Compatible metal box	SBOX	SBOX	MBOX
Compatible metal box with monitor setup	LBOX	LBOX	LBOX



NVR



	NIPNVR032A12NASL	NIPNVR064A16NASL	NIPNVR128A16NASL
IP Cameras	32ch	64ch	128ch
Max. Recording resolution	32Ch@12MP/8MP/6MP/5MP/4MP/3MP/1080P/1280x1024/960P/720P/960H/D1/CIF	64Ch@16MP/12MP/8MP/6MP/5aMP/4MP/3MP/1080P/1280x1024/960P/720P/960H/D1/CIF	128Ch@16MP/12MP/8MP/6MP/5MP/4MP/3MP/1080P/1280x1024/960P/720P/960H/D1/CIF
POE ports	/	/	/
Video outputs	1 HDMI (4K), 1 HDMI (1920x1080), 1 VGA (1920x1080)	1 HDMI (8K), 2 HDMI (4K), 1 HDMI (1920x1080), 1 VGA (1920x1080)	1 HDMI (8K), 2 HDMI (4K), 1 HDMI (1920x1080), 1 VGA (1920x1080)
Audio Inputs/Outputs	1CH input; 1CH output, RCA	1CH input; 1CH output, RCA	1CH input; 1CH output, RCA
Recording type	Dual Streaming	Dual Streaming	Dual Streaming
Video Compression	H.265S/H.265+/H.265/H.264	H.264/H.265/H.265+/H.265S	H.264/H.265/H.265+/H.265S
Audio Compression	G.711 (U/A)	G.711 (U/A)	G.711 (U/A)
Recording Rate	Main stream: 12MP(1-20/20 fps) (PAL/NTSC) 9MP/8MP/6MP/5MP/4MP/3MP/1080P/1280x1024/960P/720P/960H/D1/CIF (1-25/30 fps) (PAL/NTSC) Sub stream: 1080P/960P/720P/D1/CIF (1-25/30 fps) (PAL/NTSC)	Main stream: 16MP/12MP/8MP/6MP/5MP/4MP/3MP/1080P/1280x1024/960P/720P/960H/D1/CIF (1-25/30 fps) (PAL/NTSC) Sub stream: 1080P/960P/720P/D1/CIF (1-25/30 fps) (PAL/NTSC)	Main stream: 16MP/12MP/8MP/6MP/5MP/4MP/3MP/1080P/1280x1024/960P/720P/960H/D1/CIF (1-25/30 fps) (PAL/NTSC) Sub stream: 1080P/960P/720P/D1/CIF (1-25/30 fps) (PAL/NTSC)
Synchronised playback	1CH 12MP - 8MP / 4CH 1080P / 16CH D1	1CH 16MP / 4CH 12MP / 9CH 5MP / 16CH 1080P	1CH 16MP / 4CH 12MP / 9CH 5MP / 16CH 1080P
Video Analysis	Video analysis (only with dedicated cameras)	Video analysis (only with dedicated cameras)	Video analysis (only with dedicated cameras)
HDD interface	8 SATA, (Maximum Hard Disk capacity 10TB) Supports RAID function 0,1,5,6,10	16 SATA, (Maximum Hard Disk capacity 10TB) Supports RAID function 0,1,5,6,10	16 SATA, (Maximum Hard Disk capacity 10TB) Supports RAID function 0,1,5,6,10
HDD included	/	/	/
eSATA	E-SATA x 1	E-SATA x 2	E-SATA x 2
Bandwidth	320Mbps	640Mbps	768Mbps
Integration protocols	ONVIF (Profile S, T, G)	ONVIF (Profile S, T, G)	ONVIF (Profile S, T, G)
Max. simultaneous connections	64	64	64
Alarm Inputs/Outputs	16/4	24/8	24/8
Network interface	RJ 45 x 2 (10/100/1000 Mbps)	RJ45 x 2 (10 / 100 / 1000 Mbps)	RJ45 x 2 (10 / 100 / 1000 Mbps)
Serial ports	RS-485 / 2 x USB2.0 / 1 x USB 3.0	RS-485 / 3 x USB2.0 / 1 x USB 3.0	RS-485 / 3 x USB2.0 / 1 x USB 3.0
Power supply	100-240V, 50-60 Hz	100-240V, 50-60 Hz	100-240V, 50-60 Hz
Operating temperature	-10 °C - 50 °C < 90% RH	-10 °C - 50 °C < 90% RH	-10 °C - 50 °C < 90% RH
Dimensions (mm) HxWxD	90 x 436 x 445	143 x 437 x 483	143 x 437 x 483
Compatible metal box	MBOX	/	/
Compatible metal box with monitor setup	/	/	/



# ADVANCE SERIES

## Thermal technology Main Functions

Comelit thermal cameras ensure efficient and continuous detection, working on the heat radiated in any conditions by people, vehicles and objects.

Heat detection makes it possible to view images even in conditions where a normal camera would not be capable of capturing them, such as thick fog, rain or poor lighting. Thermal cameras are capable of alerting users to the beginning of fires or unusual changes in temperature.

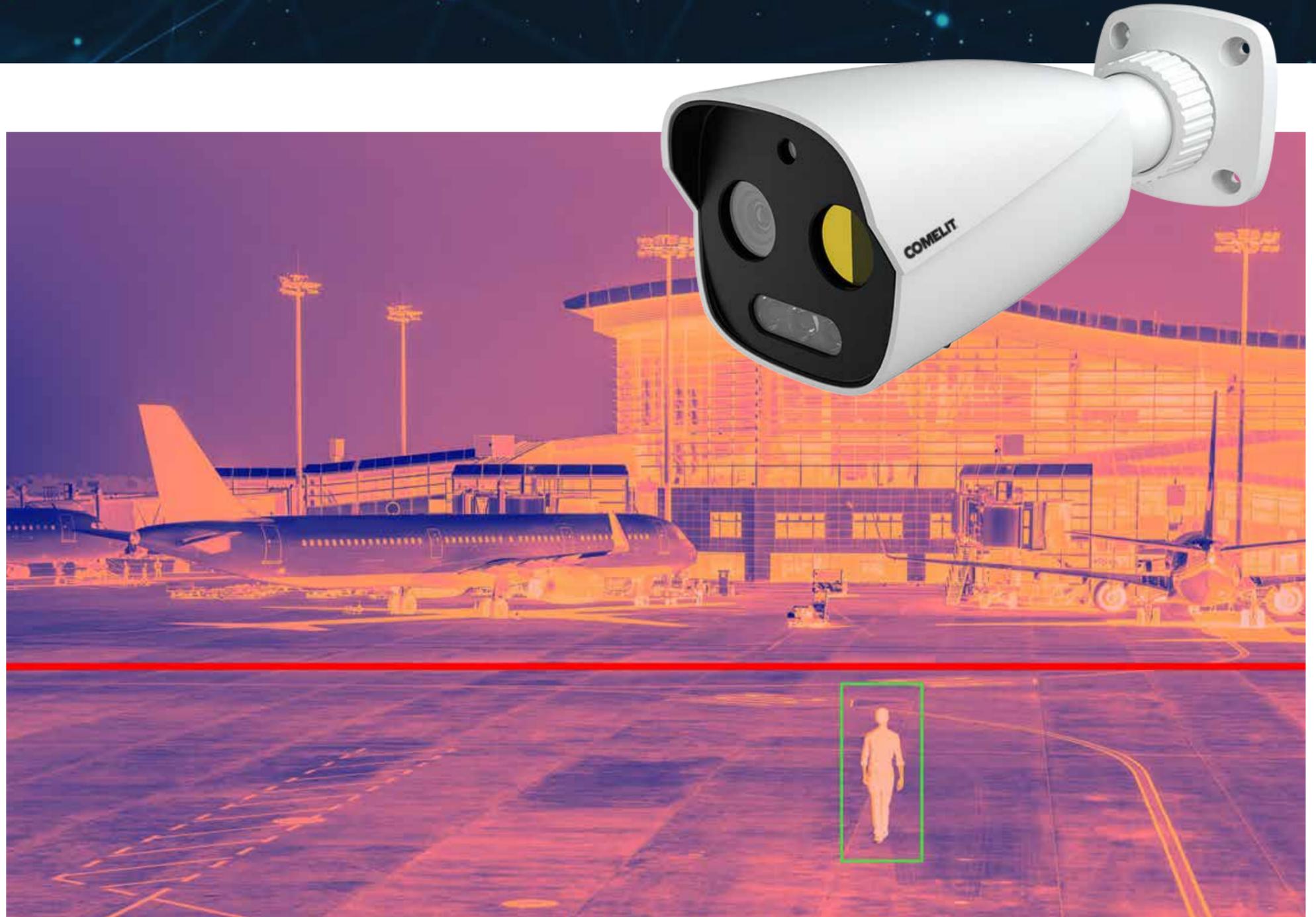
They are ideally suited to many cases, since they combine the advantages of thermal detection with those of long-distance DVA video analysis (Human/Vehicle Detection function combined with Line Crossing and Intrusion Detection).

01 **Temperature detection**

02 **Line crossing**

03 **Intrusion detection**

04 **Long distance**



## Thermal cameras



**IPTHBCAMA03A**

**IPTHBCAMA07A**

<b>Camera sensor</b>	Optical: 1/2.7" CMOS; Thermal: 8-14 Qm uncooled vanadium oxide focal plane detector	Optical: 1/2.7" CMOS; Thermal: 8-14 Qm uncooled vanadium oxide focal plane detector
<b>Camera lens</b>	Optical: 4 mm; Thermal: 3.2 mm	Optical: 8 mm; Thermal: 7 mm
<b>Horizontal field of vision (°)</b>	Optical: 81°; Thermal: 56°	Optical: 38°; Thermal: 24.8°
<b>Vertical field of vision (°)</b>	Optical: 56.7°; Thermal: 42.2°	Optical: 27.5°; Thermal: 18.7°
<b>Electronic shutter (s)</b>	1/3 s - 1 / 100000 s	1/3 s - 1 / 100000 s
<b>Sensitivity (lux)</b>	0.03 (colour), 0 (black and white, IR LEDs ON)	0.03 (colour), 0 (black and white, IR LEDs ON)
<b>IR filter</b>	Mechanical	Mechanical
<b>Video transmission</b>	Optical triple streaming + thermal streaming	Optical triple streaming + thermal streaming
<b>Video resolution</b>	Optical: 2592x1944 (5MP); Thermal: 256x192	Optical: 2592x1944 (5MP); Thermal: 256x192
<b>Video Compression</b>	H.265, H.265+, H.264, H.264+, MJPEG	H.265, H.265+, H.264, H.264+, MJPEG
<b>Frame rate</b>	Optical: 30 fps; Thermal: 30 fps	Optical: 30 fps; Thermal: 30 fps
<b>Protocols supported</b>	DDNS, DHCP, FTP, HTTP, HTTPS, IPv4, IPv6, NTP, PPPoE, QoS, RTSP, SMTP, SNMP, UDP, UPnP, ONVIF, IEEE 802.1x	DDNS, DHCP, FTP, HTTP, HTTPS, IPv4, IPv6, NTP, PPPoE, QoS, RTSP, SMTP, SNMP, UDP, UPnP, ONVIF, IEEE 802.1x
<b>Thermal Video Analysis</b>	Intrusion into an area (distinction between humans/vehicles), line crossing (distinction between humans/vehicles), fire detection, temperature detection	Intrusion into an area (distinction between humans/vehicles), line crossing (distinction between humans/vehicles), fire detection, temperature detection
<b>Optical Video Analysis</b>	Entry into/Exit from/Intrusion into an area (distinction between humans/vehicles), line crossing (distinction between humans/vehicles), video tampering, scene change, face detection, target counting (humans/vehicles)	Entry into/Exit from/Intrusion into an area (distinction between humans/vehicles), line crossing (distinction between humans/vehicles), video tampering, scene change, face detection, target counting (humans/vehicles)
<b>Detectable temperature range</b>	-20 °C - 150 °C	-20 °C - 150 °C
<b>Back light compensation (BLC)</b>	BLC, HLC	BLC, HLC
<b>Digital effects</b>	Defog, ROI zones	Defog, ROI zones
<b>Wide Dynamic Range (WDR)</b>	120dB	120dB
<b>Micro SD Card slot</b>	Micro SD card slot (supports up to 256 GB)	Built-in micro SD card slot (supports up to 256 GB)
<b>POE power supply</b>	Standard IEEE 802.3af (class 0)	Standard IEEE 802.3af (class 0)
<b>IP rating</b>	IP67	IP67
<b>Deterrent light</b>	Yes	Yes
<b>Audio inputs/outputs</b>	1 + Mic / Speaker	1 + Mic / Speaker
<b>Alarm inputs/outputs</b>	1/1	1/1
<b>Power supply voltage</b>	12VDC	12VDC
<b>Type of power supply</b>	External power supply, PoE	External power supply, PoE
<b>Accessories</b>	JBA-BA, CMA-BA, WMA-BA, PMA-A, AMA-A.	JBA-BA, CMA-BA, WMA-BA, PMA-A, AMA-A.

## Thermal cameras



**IPTHTCAMA03A**

**IPTHTCAMA07A**

<b>Camera sensor</b>	Optical: 1/2.7" CMOS; Thermal: 8-14 Qm uncooled vanadium oxide focal plane detector	Optical: 1/2.7" CMOS; Thermal: 8-14 Qm uncooled vanadium oxide focal plane detector
<b>Camera lens</b>	Optical: 4 mm; Thermal: 3.2 mm	Optical: 8 mm; Thermal: 7 mm
<b>Horizontal field of vision (°)</b>	Optical: 81°; Thermal: 56°	Optical: 38°; Thermal: 24.8°
<b>Vertical field of vision (°)</b>	Optical: 56.7°; Thermal: 42.2°	Optical: 27.5°; Thermal: 18.7°
<b>Electronic shutter (s)</b>	1/3 s - 1 / 100000 s	1/3 s - 1 / 100000 s
<b>Sensitivity (lux)</b>	0.03 (colour), 0 (black and white, IR LEDs ON)	0.03 (colour), 0 (black and white, IR LEDs ON)
<b>IR filter</b>	Mechanical	Mechanical
<b>Video transmission</b>	Optical triple streaming + thermal streaming	Optical triple streaming + thermal streaming
<b>Video resolution</b>	Optical: 2592x1944 (5MP); Thermal: 256x192	Optical: 2592x1944 (5MP); Thermal: 256x192
<b>Video Compression</b>	H.265, H.265+, H.264, H.264+, MJPEG	H.265, H.265+, H.264, H.264+, MJPEG
<b>Frame rate</b>	Optical: 30 fps; Thermal: 30 fps	Optical: 30 fps; Thermal: 30 fps
<b>Protocols supported</b>	DDNS, DHCP, FTP, HTTP, HTTPS, IPv4, IPv6, NTP, PPPoE, QoS, RTSP, SMTP, SNMP, UDP, UPnP, ONVIF, IEEE 802.1x	DDNS, DHCP, FTP, HTTP, HTTPS, IPv4, IPv6, NTP, PPPoE, QoS, RTSP, SMTP, SNMP, UDP, UPnP, ONVIF, IEEE 802.1x
<b>Thermal Video Analysis</b>	Intrusion into an area (distinction between humans/vehicles), line crossing (distinction between humans/vehicles), fire detection, temperature detection	Intrusion into an area (distinction between humans/vehicles), line crossing (distinction between humans/vehicles), fire detection, temperature detection
<b>Optical Video Analysis</b>	Entry into/Exit from/Intrusion into an area (distinction between humans/vehicles), line crossing (distinction between humans/vehicles), video tampering, scene change, face detection, target counting (humans/vehicles)	Entry into/Exit from/Intrusion into an area (distinction between humans/vehicles), line crossing (distinction between humans/vehicles), video tampering, scene change, face detection, target counting (humans/vehicles)
<b>Detectable temperature range</b>	-20 °C - 150 °C	-20 °C - 150 °C
<b>Back light compensation (BLC)</b>	BLC, HLC	BLC, HLC
<b>Digital effects</b>	Defog, ROI zones	Defog, ROI zones
<b>Wide Dynamic Range (WDR)</b>	WDR (120Db)	WDR (120Db)
<b>Micro SD Card slot</b>	Micro SD card slot (supports up to 256 GB)	Built-in micro SD card slot (supports up to 256 GB)
<b>POE power supply</b>	Standard IEEE 802.3af (class 0)	Standard IEEE 802.3af (class 0)
<b>IP rating</b>	IP67	IP67
<b>Deterrent light</b>	Yes	Yes
<b>Audio inputs/outputs</b>	1 + Mic / Speaker	1 + Mic / Speaker
<b>Alarm inputs/outputs</b>	1/1	1/1
<b>Power supply voltage</b>	12VDC	12VDC
<b>Type of power supply</b>	External power supply, PoE	External power supply, PoE
<b>Accessories</b>	JBA-TBBA, CMA-KTBBA, WMA-KTBBA, PMA-A, AMA-A, WMA-01A	JBA-TBBA, CMA-KTBBA, WMA-KTBBA, PMA-A, AMA-A, WMA-01A

## LCD thermal scanner



### IPTHPAN02FA

Camera sensor	1/2.8" CMOS
Camera lens	3.97 mm
Management software	Comelit Advance VMS
Video resolution	1920x1080 (Full-HD 1080p)
Touchscreen	Yes
Remote viewing via browser	Internet Explorer
Mobile remote control	Comelit Advance app (Android, iOS)
Video analysis	Face recognition and mask detection
Wide Dynamic Range (WDR)	WDR (120dB)
IR / lighting distance	Soft white light / 3 m
IP rating	IP63
Alarm inputs/outputs	2/2
Audio inputs/outputs	1 microphone / 1 speaker
Camera control with RS485	Yes
Type of LAN output	Ethernet 10/100 Mbit/s
SD card support (card not supplied)	Micro-SD (128 GB max)
Power supply voltage	12VDC
Max. absorption (W)	12
Type of power supply	External power supply
Dimensions (mm)	161.8 x 271 x 30.8
Weight	1200 g
Type of finish	Plastic
Case type	Tablet
Colour	Black
Operating temperature	0 - 40
Operating humidity (max % RH)	<95
Accessories	BRKPAN-WM, BRKPAN-SA, BRKPAN, BRKPAN-LA, 43082TH.

### ACCESSORIES



**BRK-PAN-WM**

**WALL BACKPLATE FOR ITHPAN02FA**  
Wall mounting backplate for panel art. ITHPAN02FA



**BRK-PAN-SA**

**DESK BACKPLATE FOR ITHPAN02FA**  
Desk base for panel art. ITHPAN02FA



**BRKPAN**

**SWIVEL BACKPLATE FOR ITHPAN02FA**  
Swivel backplate for panel art. ITHPAN02FA



**BRK-PAN-LA**

**FLOOR BACKPLATE FOR ITHPAN02FA**  
Floor mounting backplate for panel art. ITHPAN02FA



**43082TH**

**POWER SUPPLY UNIT NO JACK 230VAC/12VDC 1.33A**  
Plug-in power supply unit, input from 100 to 240 VAC/50-60 Hz, output 12 VDC/1.33A

## Bi-spectrum thermal cameras



### IPTHBCAMA05F01A

Camera sensor	Optical: 1/2.7" CMOS; Thermal: 17 Qm uncooled vanadium oxide floor detector
Camera lens	Optical: 8 mm; Thermal: 12.3 mm
Horizontal field of vision (°)	Optical: 38; Thermal: 29.7
Vertical field of vision (°)	Optical: 27.5; Thermal: 22.5
Electronic shutter (s)	1/25-100000
Sensitivity (lux)	0.01 (colour), 0 (black and white, IR LEDs ON)
IR filter	Mechanical
Video transmission	Triple streaming
Management software	Comelit Advance VMS
Video resolution	Optical: 2592x1944 (5MP); Thermal: 384x288
Pixel size (micrometres)	17
Thermal sensor sensitivity	<35 mK@25 °C
Video Compression	Smart H.265, H.265+, H.265, Smart H.264, H.264+, H.264, MJPEG
Frame rate	Optical: 30 fps; Thermal: 15 fps
Protocols supported	DDNS, DHCP, FTP, HTTP, HTTPS, IPv4, IPv6, NTP, PPPoE, QoS, RTSP, SMTP, SNMP, UDP, UPnP, ONVIF, IEEE 802.1x
Video Analysis	Scene change detection, Face detection, Face capture, Video tampering detection, Line crossing detection (distinction between humans / vehicles), Detection of Entry into / Exit from / Intrusion into an area (distinction between humans / vehicles), Object abandoned / removed detection, Crowd density detection, Human being / vehicle counting
Back light compensation (BLC)	BLC, HLC
Digital effects	Defog, ROI zones
Wide Dynamic Range (WDR)	WDR (120dB)
DNR control	2DNR, 3DNR
Power supply voltage	12VDC
Type of power supply	External power supply, PoE
POE power supply	Standard IEEE 802.3af (class 0)
IP rating	IP67
Signals	Led flash and Speaker
Alarm inputs/outputs	1/1
Accessories	BBTHA, BRKTHCAMA.

### ACCESSORIES



**BBTHA**

**BLACK BODY THERMAL SELF-CALIBRATION**  
Black body for self-calibration of thermal camera art. IPTHBCAMA05F01A. Adjustable temperature measurement range between 5 and 50°C, temperature resolution of 0.1°C, measurement accuracy 30.1°C@40°C, measurement stability 30.1-0.2°C/30 minutes, laser application area 70x70 mm, effective emission 0.9730.02.



**BRKTHCAMA**

**TRIPOD FOR THERMAL CAMERAS**  
Floor-standing tripod, for use in conjunction with fixing plate art. BRKTHCAMA01, for thermal camera art. IPTHBCAMA05F01A.

# ADVANCE SERIES

## Platform products Features

### Servers

- Authentication Server
- All-in-one Management Server
- Transfer Server

### Network Storage up to 64 HDD

These devices with X86 architecture are capable of easily managing large volumes of recordings.

High performance, high reliability, redundant power supply and RAID Hardware are just a few of the main features of this equipment. The servers are Dual Giga Ethernet: the two LAN ports can work separately or together, supporting live streaming, so as to avoid the use of specific additional hardware. They also support RAID 0, 1, 5, 6 redundancy.

### High Definition Decoding Matrix

It supports an unlimited number of display layouts with 100 monitors at once. The matrices can be configured in master / slave mode: the design is engineered to make operation, expansion and maintenance as easy as possible.



Servers



	SRV-VMS500B	SRV-TRS510A	SRV-DSK300B
Server management	Yes	\	Yes
VMS client mode	Yes	\	Yes
Transfer server	Yes	Yes	Yes
Storage server	YES, 120 GB SSD + slot 2 x 8TB hhd max	\	\
Incoming bandwidth	880 Mbps	880 Mbps	100 Mbps
Outgoing bandwidth	880 Mbps (Live view + transfer)	880 Mbps	100 Mbps
Maximum number of channels connected	1024 in transfer / 10000 ch management only	1024	32 in transfer / 256 ch management only
Maximum number of recorders connected	64 in transfer / 1024 management only	64	4 in transfer / 64 management only
RAID	\	\	\
HDD slots	2 (max 8TB)	\	\
Network interfaces	4 x RJ45	4 x RJ45	1 x RJ45
USB interfaces	6 x USB (2 x 3.0, 4 x 2.0)	6 x USB (2 x 3.0, 4 x 2.0)	4 x USB (2 x 3.0, 2 x 2.0)
Video interfaces	1 (HDMI, 4K), 1 (VGA, 1080p)	\	1 x HDMI (4K max)
Audio in/out interfaces	2/2	2/2	1/1
Operating system	Linux embedded	Linux embedded	Linux embedded
Power supply voltage	100-240 VAC / 50-60 Hz	100-240 VAC / 50-60 Hz	12VDC
Dimensions	430 x 487 x 50	430 x 487 x 50	154 x 120 x 30
Absorption	300 W	300 W	36 W

Servers



	SRV-STG016A	SRV-STG024A
Server management	\	\
VMS client mode	\	\
Transfer server	Yes	Yes
Storage server	Yes	Yes
Incoming bandwidth	900 Mbps	900 Mbps
Outgoing bandwidth	96 Mbps	96 Mbps
Maximum number of channels connected	24 in transfer (3 Mbps per ch)	24 in transfer (3 Mbps per ch)
Maximum number of recorders connected	4 in transfer	4 in transfer
RAID	supports RAID 0,1,5,6	supports RAID 0,1,5,6
HDD slots	16 (max 16TB)	24 (max 16TB)
Network interfaces	3 x RJ45	3 x RJ45
USB interfaces	4 x USB (2 x 3.0, 2 x 2.0)	4 x USB (2 x 3.0, 2 x 2.0)
Video interfaces	\	\
Audio in/out interfaces	\	\
Operating system	Linux embedded	Linux embedded
Power supply voltage	2 x built-in power supply units 550W redundant 100-240V-7-3.4A/50-60Hz	2 x built-in power supply units 800W redundant 100-240V-10-5A /50-60Hz
Dimensions	700 x 500 x 130	700 x 600 x 130
Absorption	550 W	800 W

## Decoders



	DEC0802	DEC0804
OS	Embedded Linux	Embedded Linux
Video Compression	H.265 / H.264	H.265 / H.264
Video inputs	-	HDMI x 1: 1920 x 1080 / 1600 x 1200 / 1680 x 1050 / 1440 x 900 / 1400 x 1050 / 1366 x 768 / 1280 x 1024 / 1280 x 960 / 1280 x 800 / 1280 x 720 / 1152 x 864 / 1024 x 768 / 800 x 600
Video outputs	HDMI x 2, HDMI1: 3840 x 2160 / 1920 x 1080 / 1280 x 1024; HDMI2: 1920 x 1080 / 1280 x 1024	HDMI x 4, HDMI1 and HDMI3: 3840 x 2160 / 1920 x 1080 / 1280 x 1024; HDMI2 and HDMI4: 1920 x 1080 / 1280 x 1024; VGA x 4: 1920 x 1080 / 1280 x 1024; BNC x 4: CVBS output
Frame Rate	1-25 fps/CH (PAL), 1-30 fps/CH (NTSC)	1-50 fps/CH (PAL), 1-60 fps/CH (NTSC)
Decoding resolution	8MP, 5MP, 4MP, 3MP, 1080P, 960P, 720P, WD1, D1, CIF	8MP, 5MP, 4MP, 3MP, 1080P, 960P, 720P, WD1, D1, CIF
Decoding capacity	4CH 8MP@30 fps / 8CH 4MP@30 fps / 16CH 1080P@30 fps / 32 CH 720P@30 fps / 64CH D1@30fps	8CH 8MP@30 fps / 16 CH 4MP@30 fps / 32CH 1080P@30 fps or 64CH 720P@30 fps or 128CH D1 or lower
Screen display mode	Video wall mode; matrix mode 1/4/9/16/25/36	Video wall mode; matrix mode 1/4/9/16/25/36
Audio	Audio in x 1, audio out x 1	Audio input x 1, audio output x 1 (talkback, 3.5mm audio interface) + RCA output x 4
Network interface	Gigabit Ethernet x 2	Gigabit Ethernet x 2
Serial ports	RS485 x 1	RS485 x 1, RS232 x 1
Interface	USB 3.0 x 1, USB 2.0 x 2	USB 3.0 x 1, USB 2.0 x 1
Power supply	DC 12V	DC 12V
Dimensions (mm) HxWxD	380 x 268 x 45	380 x 268 x 45
Weight	2 kg	2 kg
Operating temperature	-20 °C - 50 °C < 5%-90% RH without condensation	-20 °C - 50 °C < 5%-90% RH without condensation

## Accessories

### USB ALARM BOX



USBOX01A

#### ALARM EXPANSION USB BOX

Alarm expansion box compatible with AHDVRs/NVRs of the Advance and Next series. Detected automatically by the device to which it is connected via the USB port. 16 inputs / 6 alarm outputs.

### HARD DISKS



WDSK324A HARD DISK WD PURPLE, CAPACITY 1TB FOR CCTV

WDSK325A HARD DISK WD PURPLE, CAPACITY 2TB FOR CCTV

WDSK327A HARD DISK WD PURPLE, CAPACITY 4TB FOR CCTV

WDSK326A HARD DISK WD PURPLE, CAPACITY 6TB FOR CCTV

WDSK329A HARD DISK WD PURPLE, CAPACITY 8TB FOR CCTV

### CONTROL KEYPAD



IPKYBA02A

#### ADVANCE IP CONTROL KEYPAD

IP control keypad for use with Avance series PTZ cameras. Live colour image display on the 10.1" touchscreen monitor, complete with 3D joystick. Supports 2 different user types (administrator and operator).

### BOX



ACC01BOX

#### FAN FOR MBOX AND LBOX

Cooling fan. Built-in temperature sensor which automatically activates cooling over 45°. Accessory compatible with metal enclosures for NVRs and XVRs art. MBOX and LBOX.



SBOX

#### METAL ENCLOSURE FOR NVR AND XVR, SMALL

Metal enclosure for NVR and XVR, equipped with double door lock with key, safety tamper on the door and on the wall. Maximum recorder size: 335x375x95 mm. Compatible with: NVR 4/8 channels and XVR 4/8/16 channels of the Next series, NVR and XVR 4 channels of the Advance series.



MBOX

#### METAL ENCLOSURE FOR NVR AND XVR, MEDIUM

Metal enclosure for NVR and XVR, equipped with double door lock with key, safety tamper on the door and on the wall. Maximum recorder size: 485x470x95 mm. Suitable for use with ACC01BOX cooling fan. Compatible with: NVR 4/8/16 channels and XVR 4/8/16 channels of the Next series, NVR 4/8/16/32 channels and XVR 4/8/16 channels of the Advance series.



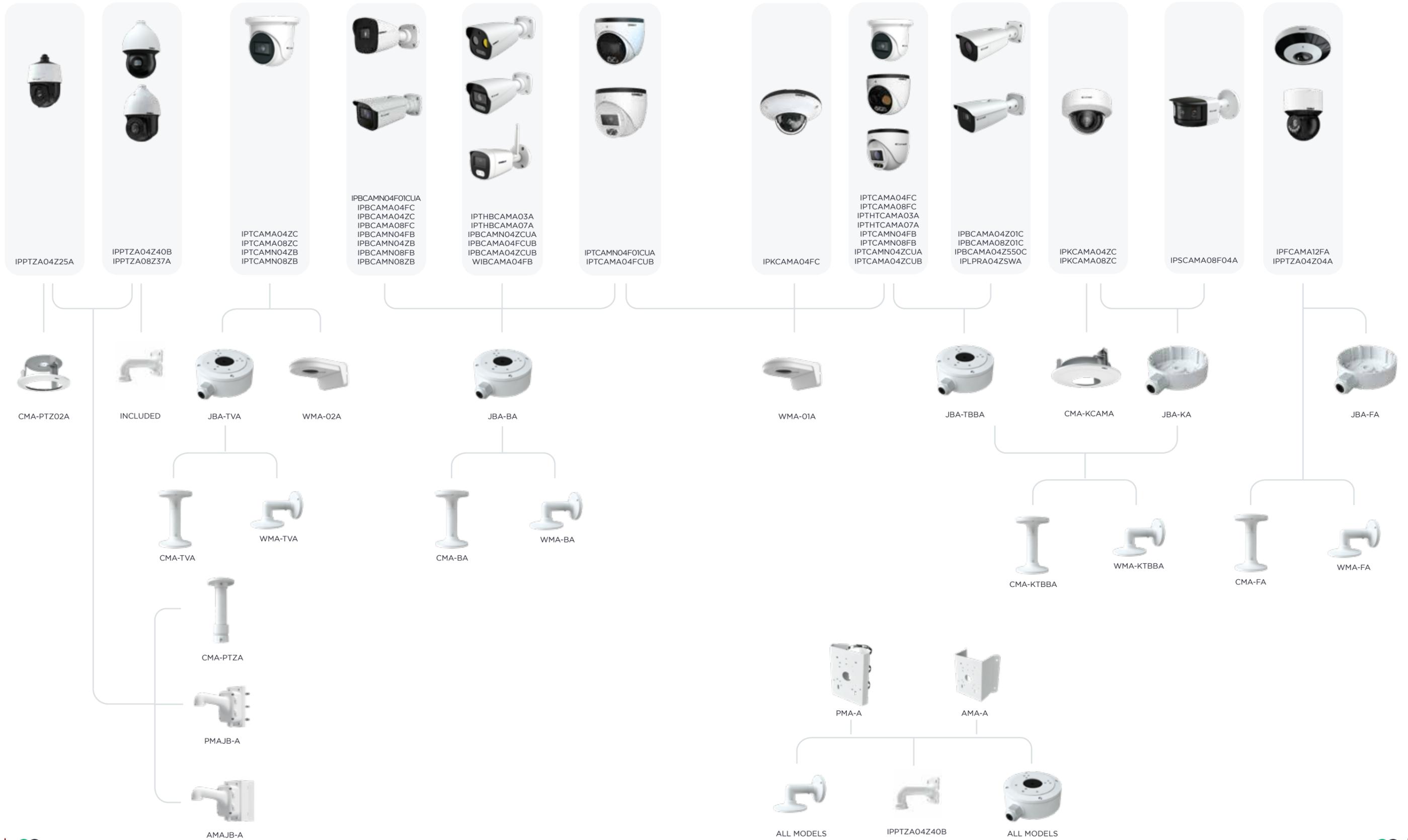
LBOX

#### METAL ENCLOSURE FOR NVR AND XVR, LARGE

Metal enclosure for NVRs, XVRs and monitors. Equipped with double door lock with key and safety tamper on the door. Maximum recorder size: 400x440x160 mm, Rack 19" mounting option. Maximum monitor size: 495x495x50 mm (Max. 22 Inches). VESA connection: 75x75 / 100x100. Suitable for use with ACC01BOX cooling fan. Compatible with: NVR 4/8/16 channels and XVR 4/8/16 channels of the Next series, NVR 4/8/16 channels and XVR 4/8/16 channels of the Advance series.

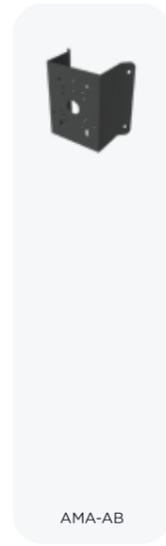
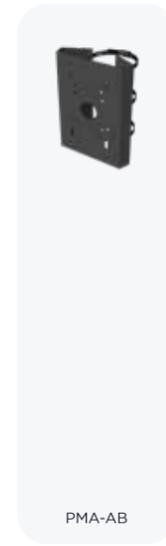
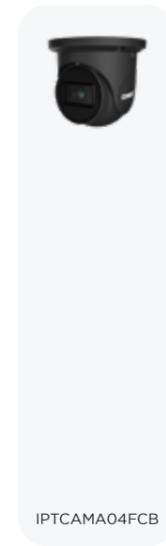
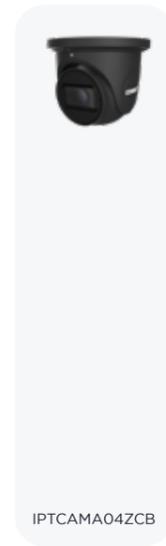
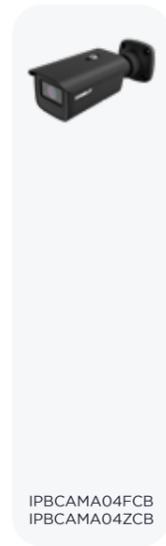
**ACCESSORIES**

Accessories



ACCESSORIES

Accessories



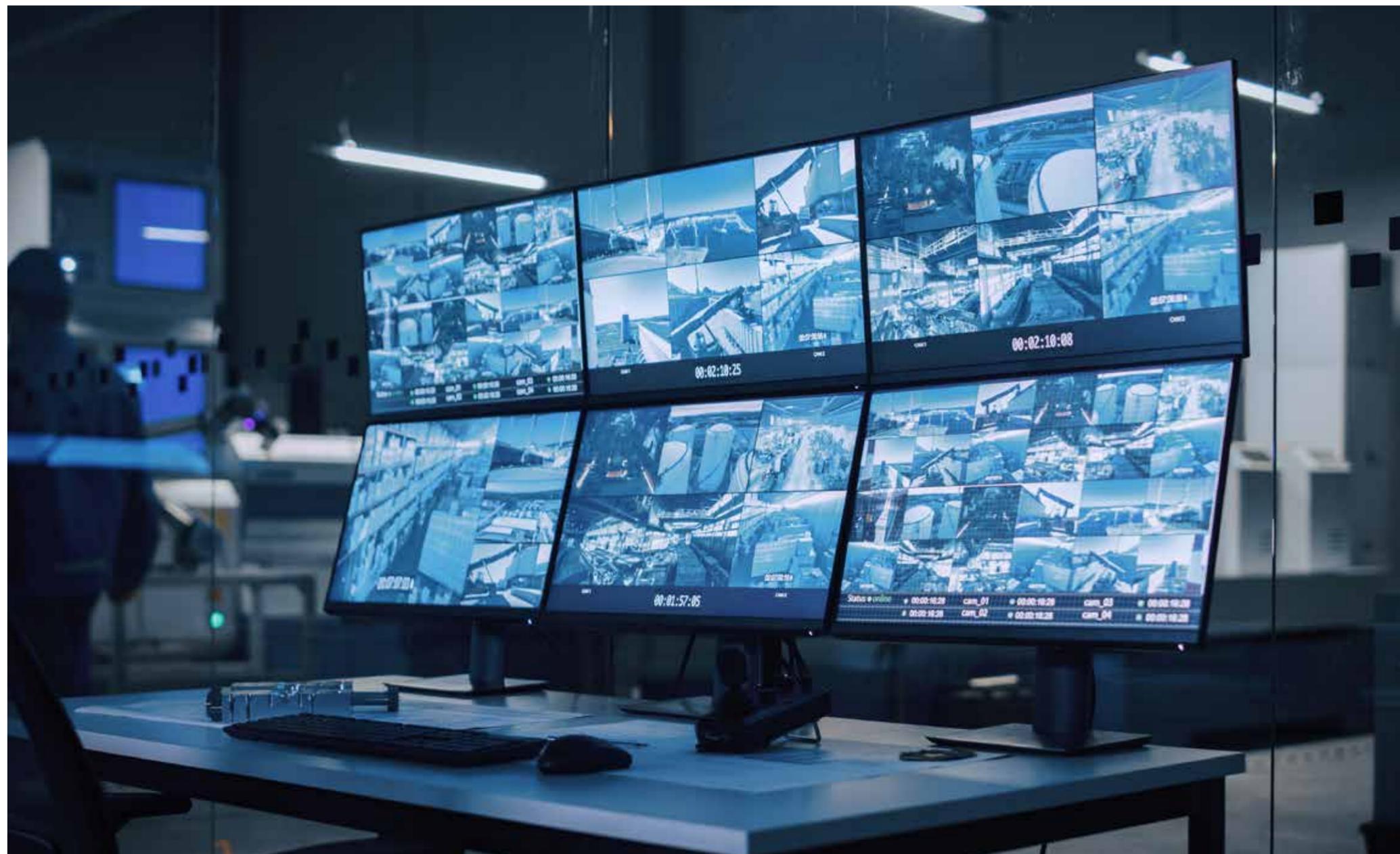
# MONITORS

## Our range

### Monitors

Our video surveillance monitors are the ideal solution for creating high-performance customisable video walls for control rooms. The exceptional image quality and huge range of viewing options makes them capable of guaranteeing constant and reliable monitoring of spaces, without compromising on image quality. Plus, the modular nature of our monitors makes it possible to create custom configurations in order to satisfy specific security requirements.

A variety of sizes, resolutions and features is available to create a made to measure video wall and keep everything under control.



## Monitors



	MMON185A	MMON024C	MMON032C
Type of display	18.5" LED	24" LED	32" LED
Video inputs	1 VGA, 1 BNC, 1 HDMI	1 VGA, 1 HDMI	1 VGA, 1 HDMI
Resolution	HD	Full HD	Full HD
Framing ratio	16:9	16:9	16:9
Displayable colours (million)	16.7 (24 Bit)	16.7 (8 Bit)	16.7 (8 Bit)
Display brightness (cd/m <sup>2</sup> ) (m <sup>2</sup> )	250	250	300
Audio inputs/outputs	1 / 1 + speakers	1 / 0 + speakers	0/1
Power supply	100-240V, 50-60 Hz, <30W	DC 12V/2.5A	100-240V, 50-60 Hz, <45W
Operating temperature	0 °C - 40 °C < 85% RH	0 °C - 40 °C < 85% RH	0 °C - 40 °C < 85% RH
Fixing type	VESA standard 100/100	VESA standard 75/75	VESA standard 75/75
Dimensions (mm) HxWxD	341 x 452 x 60	320.4 x 539.2 x 39.5	548 x 842 x 117



	HMON032C	HMON043C	HMON055D
Type of display	32" LED	43" Eled	55" Eled
Video inputs	2 HDMI, 2 Display Ports	2 HDMI, 1 Display Port, 1 VGA	2 HDMI, 1 Display Port, 1 VGA
Resolution	4K	4K	4K
Framing ratio	16:9	16:9	16:9
Displayable colours (million)	16.7 (8 Bit)	16.7 (8 Bit)	16.7 (8 Bit)
Display brightness (cd/m <sup>2</sup> ) (m <sup>2</sup> )	250	320	320
Audio inputs/outputs	0 / 1 + speakers	1 / 0 + speakers	1 / 0 + speakers
Power supply	100-240V, 50-60 Hz, <60W	100-240V, 50-60 Hz, <80W	100-240V, 50-60 Hz, <130W
Operating temperature	0 °C - 40 °C < 85% RH	0 °C - 40 °C < 85% RH	0 °C - 40 °C < 85% RH
Fixing type	VESA standard 100/100	VESA standard 400/400	VESA standard 400/400
Dimensions (mm) HxWxD	717.3 x 421.3 x 71.1	971.62 x 560.1 x 62.4	1239.6 x 711.1 x 62.6

## Switch



	IPSWN08N01A	IPSWC160A	IPSWC242A
Web Managed	-	-	Yes
LAN ports	8 x10/100/1000 Mbps RJ45 Port	16x10/100/1000 Mbps RJ45 Port	24x10/100/1000 Mbps RJ45 2SFP ports
Supported standards/protocols	IEEE802.3u/ab/az, IEEE802.3x (full-duplex)/back pressure (half-duplex)	IEEE802.3ab, IEEE802.3x (full-duplex)/back pressure (half-duplex), IEEE802.3az	IEEE802.3u/ab/az, IEEE802.3x (full-duplex)/back pressure (half-duplex)
SFP Slots	-	-	2x 1000 Mbps SFP module
Switching capacity	16 Gbps	32 Gbps	52 Gbps
Packet buffer 1.5 M bit	1.5 M bit	-	-
Forwarding Rate	11.9 Mpps	1.4 Mpps	1.4 Mpps
MAC address table	4K	8K, Automatic study, automatic updates	Automatic learning, automatic update
Fan	FANLESS	1 FAN	2 FANS
LED indicators	PWR, LNK/ACT	PWR, LNK/ACT	PWR, LNK/ACT
Power supply	DC: 12V/0.5A	100 - 240 V / 50-60 Hz	100 - 240 V / 50-60 Hz
Operating temperature	0 °C - +40 °C	0 °C - +40 °C	0 °C - +40 °C
Storage temperature	-40 °C - +70 °C	-40 °C - +70 °C	-40 °C - +70 °C
Operating humidity	10%-90% RH without condensation	10%-90% RH without condensation	10%-90% RH without condensation
Storage humidity	5%-90% RH without condensation	5%-90% RH without condensation	5%-90% RH without condensation
Dimensions (mm) HxWxD	140 x 76.7 x 28	280 x 180 x 44	280 x 180 x 44
Weight	<1 kg	<2 kg	<2 kg
Type of finish	Metal	Metal	Metal
Colour	Black	Black	Black
Surge protection	Difference module 31KV, Common mode 32KV	Difference module 31KV, Common mode 32KV	Difference module 31KV, Common mode 32KV
MTBF	>50,000 hours	>50,000 hours	>50,000 hours
Electrostatic standard	Contact 6KV, air 8KV	Contact 6KV, air 8KV	Contact 6KV, air 8KV
Accessories	Power supply unit included	-	-

PoE switch



	IPSWP06N01A	IPSWP10N01A	IPSWP22N01A
<b>LAN ports</b>	6x10/100/1000 Mbps RJ45 port	10x10/100/1000 Mbps RJ45 port	16x10/100/1000 Mbps RJ45 Port 2x10/100/1000 Mbps Combo port 2x 10/100/1000 Mbps RJ45 Port
<b>Supported standards/protocols</b>	IEEE802.3u/ab/az, IEEE802.3x (full-duplex)/back pressure (half-duplex)	IEEE802.3u/ab/az, IEEE802.3x (full-duplex)/back pressure (half-duplex)	IEEE802.3u/ab/az, IEEE802.3x (full-duplex)/back pressure (half-duplex)
<b>PoE LAN ports</b>	4	8	16
<b>Standard PoE</b>	IEEE802.3af/at	IEEE802.3af/at	IEEE802.3af/at
<b>Budget PoE</b>	Total 65W, Max 32W for PoE port	Total 120W, Max 32W for PoE port	Total 250W, Max 32W for PoE port
<b>SFP Slots</b>	-	-	2x 1000 Mbps SFP module
<b>Switching capacity</b>	12 Gbps	20 Gbps	40 Gbps
<b>Packet buffers</b>	1.5 M bit	2 M bit	4.1 M bit
<b>Forwarding Rate</b>	8.9 Mpps	13.4 Mpps	29.8 Mpps
<b>MAC address table</b>	4K, Automatic study, automatic updates	8K, Automatic study, automatic updates	8K, Automatic study, automatic updates
<b>Maximum PoE transmission distance</b>	Up to 250 m	Up to 250 m	Up to 250 m
<b>Main functions</b>	VLAN and CCTV Mode	VLAN and CCTV Mode	VLAN and CCTV Mode
<b>Jumbo management</b>	9216 Byte	9216 Byte	9216 Byte
<b>Fan</b>	FANLESS	1 FAN	2 FANS
<b>LED indicators</b>	PWR (Green), LNK/ACT (Green) PoE (Orange)	PWR (Green), LNK/ACT (Green) PoE (Orange)	PWR (Green), LNK/ACT (Green) PoE (Orange)
<b>Power supply</b>	DC 54.5V/1.32A	100-240V AC, 50/60Hz	100-240V AC, 50/60Hz
<b>Operating temperature</b>	0 °C - +40 °C	0 °C - +40 °C	0 °C - +40 °C
<b>Storage temperature</b>	-40 °C - +70 °C	-40 °C - +70 °C	-40 °C - +70 °C
<b>Operating humidity</b>	10%-90% RH without condensation	10%-90% RH without condensation	10%-90% RH without condensation
<b>Storage humidity</b>	5%-90% RH without condensation	5%-90% RH without condensation	5%-90% RH without condensation
<b>Dimensions (mm) HxWxD</b>	168 x 93 x 32	220 x 150 x 44	440 x 207 x 44
<b>Weight</b>	<1 kg	>1 kg	<5 kg
<b>Type of finish</b>	Metal	Metal	Metal
<b>Colour</b>	Black	Black	Black
<b>Surge protection</b>	Differential mode 34KV, Common mode 36KV	Differential mode 34KV, Common mode 36KV	Differential mode 34KV, Common mode 36KV
<b>MTBF</b>	>50,000 hours	>50,000 hours	>50,000 hours
<b>Electrostatic standard</b>	Contact 4KV, air 6KV	Contact 4KV, air 6KV	Contact 6KV, air 8KV
<b>Accessories</b>	Power supply unit included	-	Rack fixing backplates

PoE switch



	IPSWP06N02A	IPSWP10N02A	IPSWP02NA
<b>LAN ports</b>	4x10/100/1000 Mbps RJ45 port	8x10/100/1000 Mbps RJ45 Ports	3x10/100/1000 Mbps RJ45 Port
<b>Supported standards/protocols</b>	IEEE802.3u/ab/az, IEEE802.3x (full-duplex)/back pressure (half-duplex)	IEEE 802.3, IEEE 802.3u, IEEE 802.3ab, IEEE 802.3z, IEEE 802.3x, IEEE802.3af, IEEE802.3at	IEEE802.3, IEEE802.3u, IEEE802.3ab,, IEEE802.3x, IEEE802.3af, IEEE802.3at, IEEE802.3bt
<b>PoE LAN ports</b>	4	8	2
<b>Standard PoE</b>	IEEE802.3af/at	IEEE802.3af/at	IEEE802.3af/at/bt
<b>Budget PoE</b>	Total 65W, Max 32W for PoE port	Total 185W, Max 30W for PoE port	1 input 95W max, 2 RJ45 outputs 30W each
<b>SFP Slots</b>	2x 1000 Mbps SFP module	2x 1000 Mbps SFP module	-
<b>Switching capacity</b>	12 Gbps	20 Gbps	6 Gbps
<b>Packet buffers</b>	1.5 M bit	1.5 M bit	-
<b>Forwarding Rate</b>	8.9 Mpps	14.88 Mpps	-
<b>MAC address table</b>	4K, Automatic study, automatic updates	4K, Auto-learning, Auto-aging	Automatic learning, automatic update
<b>Maximum PoE transmission distance</b>	-	-	-
<b>Main functions</b>	-	-	-
<b>Jumbo management</b>	9216 Byte	9216 Byte	-
<b>Fan</b>	FANLESS	FANLESS	FANLESS
<b>LED indicators</b>	PWR (Green), LNK/ACT (Green) PoE (Orange)	PWR (Green), LNK/ACT (Green) PoE (Orange)	PWR, LNK/ACT
<b>Power supply</b>	DC: 48-57V	DC: 48-57V	PoE
<b>Operating temperature</b>	-40 °C - +75 °C	-40 °C - +75 °C	-20 °C - 60 °C
<b>Storage temperature</b>	-40 °C - +80 °C	-40 °C - +80 °C	-40 °C - +80 °C
<b>Operating humidity</b>	10%-90% RH without condensation	5%-95% RH without condensation	<90%
<b>Storage humidity</b>	5%-90% RH without condensation	0%-95% RH without condensation	-
<b>Dimensions (mm) HxWxD</b>	165 x 147 x 54	145 x 109 x 62	150 x 73 x 44
<b>Weight</b>	<2 kg	<2 kg	<1 kg
<b>Type of finish</b>	Metal	Metal	Metal (IP67, IK10)
<b>Colour</b>	Grey	Grey	Grey
<b>Surge protection</b>	Differential mode 34KV Common mode 36KV	Differential mode 32KV Common mode 34KV	Differential mode 34KV Common mode 36KV
<b>MTBF</b>	>100,000 hours	>100000 hours	>50,000 hours
<b>Electrostatic standard</b>	Contact 8KV, air 10KV	Contact 36KV, Air 38KV	Contact 6KV, air 8KV
<b>Accessories</b>	PS4825A (not included)	PS4850A (not included)	-

PoE switch



	IPSWP06N100A	IPSWP08N100A
LAN ports	6x10/100/1000 Mbps RJ45 port	10x10/100/1000 Mbps RJ45 port
Supported standards/protocols	IEEE802.3af/at/az, IEEE802.3x(full-duplex)/back pressure (half-duplex)	IEEE802.3af/at/az, IEEE802.3x(full-duplex)/back pressure (half-duplex)
PoE LAN ports	4	8
Standard PoE	IEEE802.3af/at	IEEE802.3af/at
Budget PoE	Total 60W, Max 32W for PoE port	Total 120W, Max 32W for PoE port
SFP Slots	-	-
Switching capacity	1.2Gbps	2 Gbps
Packet buffers	1.5 M bit	1.5 M bit
Forwarding Rate	11.9 Mpps	1.4 Mpps
MAC address table	1K, automatic learning and updates	8K, automatic learning and updates
Maximum PoE transmission distance	Up to 100 m	Up to 250 m
Main functions	CCTV Mode	VLAN and CCTV Mode
Jumbo management	1536 Byte	1664 Byte
Fan	FANLESS	1 FAN
LED indicators	PWR, LNK/ACT	PWR, LNK/ACT
Power supply	100-240 VAC / 50-60 Hz	100-240 VAC / 50-60 Hz
Operating temperature	0 °C - +40 °C	0 °C - +40 °C
Storage temperature	-40 °C - +70 °C	-40 °C - +70 °C
Operating humidity	10%-90% RH without condensation	10%-90% RH without condensation
Storage humidity	5%-90% RH without condensation	5%-90% RH without condensation
Dimensions (mm) HxWxD	140 x 76.7 x 28	220 x 150 x 44
Weight	<1 kg	<2 kg
Type of finish	Metal	Metal
Colour	Black	Black
Surge protection	Difference module 31KV, Common mode 32KV	Difference module 31KV, Common mode 32KV
MTBF	>50,000 hours	>50,000 hours
Electrostatic standard	Contact 6KV, air 8KV	Contact 6KV, air 8KV
Accessories	-	-

Built-in antennas



	CPE-515A	CPE-520A	BASE-590A
Wi-Fi type	5 GHz Hyperlan point-to-point system, standard IEEE802.11a/n SISO -TDMA	5 GHz Hyperlan point-to-point system, standard IEEE802.11a/n MIMO -TDMA	5 GHz Hyperlan point-to-point system, standard IEEE802.11a/n/ac MIMO -TDMA
Transmission distance	Up to 7 km	Up to 15 km	Up to 5 km
Network interface	Gigabit LAN (To be used with Gigabit switches)	Gigabit LAN (To be used with Gigabit switches)	Gigabit LAN (To be used with Gigabit switches)
Antenna	OFDM or DSSS with NLOS capacity	OFDM or DSSS with NLOS capacity	OFDM or DSSS with NLOS capacity
Operating modes	Dynamic Mesh, static WDS Mesh, bridging, routing, firewall, QoS	Dynamic Mesh, static WDS Mesh, bridging, routing, firewall, QoS	Dynamic Mesh, static WDS Mesh, bridging, routing, firewall, QoS
IP rating	IP68	IP68	IP68
Absorption	11W	11W	11W
Type of power supply	POE802.3 af/at 48Vdc (External power supply 110/230Vac)	POE802.3 af/at 48Vdc (External power supply 110/230Vac)	POE802.3 af/at 48Vdc (External power supply 110/230Vac)
Wireless security	Mac filtering, WPA2 (EAP, AES, TKIP), DFS, TPC	Mac filtering, WEP 64/128bit, WPA/WPA2 aes-ccm/tkip PSK/EAP	Mac filtering, WEP 64/128bit, WPA/WPA2 aes-ccm/tkip PSK/EAP
Operating frequency (GHz)	4.9-5.85	4.9-5.85	4.9-5.85
Available band (Mbit/s)	70	190	500
DSSS modulation	DBPSK, DQPSK, CCK TDMA	DBPSK, DQPSK, CCK TDMA	DBPSK, DQPSK, CCK TDMA
OFDM modulation	BPSK, QPSK, 16 QAM, 64 QAM, TDMA	BPSK, QPSK, 16 QAM, 64 QAM, TDMA	BPSK, QPSK, 16 QAM, 64 QAM, TDMA
Maximum transmission power (dBm)	25	25	30
Sensitivity@data rate	-97dBm@20MHz-MCS0, -77dBm@20MHz MCS7	-97dBm@20MHz-MCS0, -77dBm@20MHz MCS7	-96dBm@20MHz-MCS0, -72dBm@20MHz-MCS7
Coverage angle	35°	16°	90°
Transmission power management	TPC function	TPC function	TPC function
Channel management	DFS, Auto, Selection, Radar free	DFS, Auto, Selection, Radar free	DFS, Auto, Selection, Radar free
Management mode	Telnet client, SSH, Telnet server	Telnet client, SSH, Telnet server	Telnet client, SSH, Telnet server
Bridge	Multiple bridge interfaces, MAC monitored in real time; RSTP	Multiple bridge interfaces, MAC monitored in real time; RSTP	Multiple bridge interfaces, MAC monitored in real time; RSTP
VLAN	802.1q, multiple VLAN interface, inter VLAN routing	802.1q, multiple VLAN interface, inter VLAN routing	802.1q, multiple VLAN interface, inter VLAN routing
VPN	IPSEC, EoIP, PPTP, VLAN, L2TP, PPPoE, IPiP	IPSEC, EoIP, PPTP, VLAN, L2TP, PPPoE, IPiP	IPSEC, EoIP, PPTP, VLAN, L2TP, PPPoE, IPiP
SNMP	SNMP V1 client, MIB II, Bridge MIB	SNMP V1 client, MIB II, Bridge MIB	SNMP V1 client, MIB II, Bridge MIB
Safety	Firewall limit. P2P, IP mac-address, protocol, radius server	Firewall limiting P2P, L7 mac-address filter, radius server	Firewall limiting P2P, L7 mac-address filter, radius server

## Built-in antennas



	BASE-5A	KITCPE-515A	KITCPE-520A
<b>Wi-Fi type</b>	5 GHz Hyperlan Bridge Repeater, standard IEEE802.11a/n SISO -TDMA	5 GHz Hyperlan Bridge Repeater, standard IEEE802.11a/n SISO -TDMA	5 GHz Hyperlan Bridge Repeater, standard IEEE802.11a/n SISO -TDMA
<b>Transmission distance</b>	Up to 20 km	Up to 7 km	Up to 15 km
<b>Network interface</b>	Gigabit LAN (To be used with Gigabit switches)	Gigabit LAN (To be used with Gigabit switches)	Gigabit LAN (To be used with Gigabit switches)
<b>Antenna</b>	OFDM or DSSS with NLOS capacity	OFDM or DSSS with NLOS capacity	OFDM or DSSS with NLOS capacity
<b>Operating modes</b>	Pure bridge, Mesh (static or dynamic), routing, firewall, QoS	Pure bridge, Mesh (static or dynamic), routing, firewall, QoS	Pure bridge, Mesh (static or dynamic), routing, firewall, QoS
<b>IP rating</b>	anti-vandal IP68	anti-vandal IP68	anti-vandal IP68
<b>Absorption</b>	11W	11W	11W
<b>Type of power supply</b>	POE802.3 af/at 48Vdc (External power supply 110/230Vac)	POE802.3 af/at 48Vdc (External power supply 110/230Vac)	POE802.3 af/at 48Vdc (External power supply 110/230Vac)
<b>Wireless security</b>	Mac filtering, WEP 64/128bit, WPA/WPA2 aes-ccm/tkip PSK/EAP	Mac filtering, WEP 64/128bit, WPA/WPA2 aes-ccm/tkip PSK/EAP	Mac filtering, WEP 64/128bit, WPA/WPA2 aes-ccm/tkip PSK/EAP
<b>Operating frequency (GHz)</b>	4.9 - 5.85	4.9 - 5.85	4.9 - 5.85
<b>Available band (Mbit/s)</b>	/	/	/
<b>DSSS modulation</b>	DBPSK, DQPSK, CCK TDMA	DBPSK, DQPSK, CCK TDMA	DBPSK, DQPSK, CCK TDMA
<b>OFDM modulation</b>	BPSK, QPSK, 16 QAM, 64 QAM, TDMA	BPSK, QPSK, 16 QAM, 64 QAM, TDMA	BPSK, QPSK, 16 QAM, 64 QAM, TDMA
<b>Maximum transmission power (dBm)</b>	25	25	25
<b>Sensitivity@data rate</b>	-97dBm@20MHz-MCS0, -77dBm@20MHz MCS7	-97dBm@20MHz-MCS0, -77dBm@20MHz MCS7	-97dBm@20MHz-MCS0, -77dBm@20MHz MCS7
<b>Coverage angle</b>	/	35°	16°
<b>Transmission power management</b>	TPC function	TPC function	TPC function
<b>Channel management</b>	DFS, Auto, Selection, Radar free	DFS, Auto, Selection, Radar free	DFS, Auto, Selection, Radar free
<b>Management mode</b>	Telnet client, SSH, Telnet server	Telnet client, SSH, Telnet server	Telnet client, SSH, Telnet server
<b>Bridge</b>	Multiple bridge interfaces, Layer 2 Filtering and QoS, RSTP/STP	Multiple bridge interfaces, Layer 2 Filtering and QoS, RSTP/STP	Multiple bridge interfaces, Layer 2 Filtering and QoS, RSTP/STP
<b>VLAN</b>	802.1q, multiple VLAN interface, inter VLAN routing	802.1q, multiple VLAN interface, inter VLAN routing	802.1q, multiple VLAN interface, inter VLAN routing
<b>VPN</b>	IPSEC, EoIP, PPTp, VLAN, L2TP, PPPoE, IPIP	IPSEC, EoIP, PPTp, VLAN, L2TP, PPPoE, IPIP	IPSEC, EoIP, PPTp, VLAN, L2TP, PPPoE, IPIP
<b>SNMP</b>	SNMP V1 client, MIB II, Bridge MIB	SNMP V1 client, MIB II, Bridge MIB	SNMP V1 client, MIB II, Bridge MIB
<b>Safety</b>	Firewall limiting P2P, L7 mac-address filter, radius server	Firewall limiting P2P, L7 mac-address filter, radius server	Firewall limiting P2P, L7 mac-address filter, radius server
<b>Accessories</b>	SETM090A - SETM120A - PAND010A - PARD060A - PARD040A - CAN001A - CAN002A - CAN003A - SAN001A	SETM090A - SETM120A - PAND010A - PARD060A - PARD040A - CAN001A - CAN002A - CAN003A - SAN001A	SETM090A - SETM120A - PAND010A - PARD060A - PARD040A - CAN001A - CAN002A - CAN003A - SAN001A

## Accessories

### BUILT-IN ANTENNA ACCESSORIES



ANT230A

**30° DUAL-POL. ANTENNA 5 GHZ**  
Antenna with symmetrical beam at 30° with gain: 18.4 dB. Equipped with N-female connectors, Frequency 5180 - 6400 MHz, beam width -6 dB: H 30° / V 30°, mechanical tilt: 3 25°, pole mounting diameter: 30 - 90 mm.



ANT290A

**90° DUAL-POL. ANTENNA 5 GHZ**  
Antenna with symmetrical beam at 90° with gain: 9.6 dB. Equipped with N-female connectors, Frequency 5180 - 6400 MHz, beam width -6 dB: H 90° / V 90°, mechanical tilt: 3 25°, pole mounting diameter: 30 - 80 mm.



ANT360A

**360° OMNIDIRECTIONAL ANTENNA, 5GHZ**  
360° omnidirectional antenna, with gain: 5 dB, frequency 4900 MHz - 6200 MHz and impedance 50 Ohm. N-male connector. Vertical beam width 21°, horizontal 360°.



CAN001B

**ANTENNA CABLE, LENGTH 1M**  
Low loss 1/2" superflex coaxial cable with male N connector on both ends, type FSJ4-50B, impedance 50Ohm 3 1%, frequency = 10 GHz.

43082TH	POWER SUPPLY UNIT NO JACK 230VAC/12VDC 1.33A.	80
ACCO1BOX	FAN FOR MBOX AND LBOX	87
AHBCAMS05FB	AHD BULLET CAMERA: 5MP, 3.6MM, IR 25M	40
AHBCAMS05ZB	AHD BULLET CAMERA: 5MP, 2.7-13.5MM, IR 40M	41
AHBCAMS08FB	AHD BULLET CAMERA: 4K, 3.6MM, IR 25M	41
AHBCAMS08ZB	AHD BULLET CAMERA: 4K, 2.7-13.5MM, IR 40M	41
AHDCAMS05F01A	AHD MICRODOME CAMERA: 5MP, 3.6MM	40
AHDCAMS05FB	AHD MINIDOME CAMERA: 5MP, 3.6MM, IR 20M	40
AHDCAMS05ZB	AHD MINIDOME CAMERA: 5MP, 2.7-13.5MM, IR 30M	40
AHDCAMS08FB	AHD MINIDOME CAMERA: 4K, 3.6MM, IR 20M	40
AHDCAMS08ZB	AHD MINIDOME CAMERA: 4K, 2.7-13.5MM, IR 30M	40
AHDVR004A08B	XVR 4 INPUTS 8MP, AI, 1 TB HDD	74
AHDVR004A08BSL	XVR 4 INPUTS 8MP, AI, NO HDD	74
AHDVR004N05A	XVR 4 INPUTS 5MP, AI, 1 TB HDD	36
AHDVR004N05ASL	XVR 4 INPUTS 5MP, AI, NO HDD	36
AHDVR008A08B	XVR 8 INPUTS 8MP, AI, 1 TB HDD	74
AHDVR008A08BSL	XVR 8 INPUTS 8MP, AI, NO HDD	74
AHDVR008N05A	XVR 8 INPUTS 5MP, AI, 1 TB HDD	36
AHDVR008N05ASL	XVR 8 INPUTS 5MP, AI, NO HDD	36
AHDVR016A08B	XVR 16 INPUTS 8MP, AI, 2 TB HDD	74
AHDVR016A08BSL	XVR 16 INPUTS 8MP, AI, NO HDD	74
AHDVR016N05A	XVR 16 INPUTS 5MP, AI, 2 TB HDD	37
AHDVR016N05ASL	XVR 16 INPUTS 5MP, AI, NO HDD	37
AHSCAMS02F03A	AHD CAMERA: 2MP, PINHOLE, 3.7MM	41
AHSCAMS05F01A	AHD CAMERA: 5MP, PIR HOUSING, 3.7MM	41
AHSCAMS05F02A	AHD CAMERA: 5MP, SMOKE DET. HOUSING, 3.6MM	41
ANT230A	30° DUAL-POL. ANTENNA 5 GHZ	101
ANT290A	90° DUAL-POL. ANTENNA 5 GHZ	101
ANT360A	360° OMNIDIRECTIONAL ANT., 5GHZ	101
BASE-590A	5GHZ BASE, 5KM MIMO 802/11A/N/AC D. POL	99
BASE-5A	5GHZ BASE, 20KM MIMO 802/11A/N/AC D. POL	100
BBTHA	BLACK BODY, THERMAL SELF-CALIBRATION	81
BRKPAN	SWIVEL BACKPLATE FOR IPHPAN02FA	80
BRKPAN-LA	FLOOR-MOUNT BACKPLATE FOR IPHPAN02FA	80
BRKPAN-SA	DESK BACKPLATE FOR IPHPAN02FA	80
BRKPAN-WM	WALL BACKPLATE FOR IPHPAN02FA	80
BRKTHCAMA	TRIPOD FOR THERMAL CAMERAS	81
CAN001B	ANTENNA CABLE, LENGTH 1M	101
DEC0802	8MP DECODER, 2 OUT HDMI	86
DEC0804	8MP DECODER, 4 OUT HDMI	86
HMON032C	MONITOR, 4K RESOLUTION 32" PRO	94
HMON043C	43" MONITOR, 4K, 2 X HDMI, DP, VGA, AUDIO	94
HMON055D	MONITOR, 4K RESOLUTION 55" PRO	94
IPBCAMA04FC	IP BULLET CAMERA, 4MP 2.8MM	54
IPBCAMA04FCB	BULLET IP CAMERA 4MP 2.8MM, BLACK	54
IPBCAMA04FCUB	IP BULLET 4MP 2.8MM COLOR UP	57
IPBCAMA04Z01C	IP BIG BULLET CAMERA, 4MP 2.8-12MM	54
IPBCAMA04Z550C	IP BIG BULLET CAMERA, 4MP 5-50MM	66
IPBCAMA04ZC	IP BULLET CAMERA, 4MP 2.8-12MM	54
IPBCAMA04ZCB	BULLET IP CAMERA 4MP 2.8-12MM, BLACK	54
IPBCAMA04ZCUB	IP BULLET CAMERA 4MP 2.8-12MM COLOR UP	57
IPBCAMA08FC	IP BULLET CAMERA, 8MP 2.8MM	56

IPBCAMA08Z01C	IP BULLET CAMERA, 8MP 2.8-12MM	56
IPBCAMN04F01CUA	MINI IP BULLET CAMERA, 4MP 2.8MM COLOR UP	30
IPBCAMN04FB	IP BULLET CAMERA 4MP, 2.8MM, AI	26
IPBCAMN04ZB	IP BULLET CAMERA 4MP, 2.8-12MM, AI	26
IPBCAMN04ZCUA	IP BULLET CAMERA 4MP 2.8-12MM COLOR UP	30
IPBCAMN08FB	IP BULLET CAMERA 8MP, 2.8MM, AI	28
IPBCAMN08ZB	IP BULLET CAMERA 8MP, 2.8-12MM, AI	28
IPFCAMA12FA	FISHEYE IP CAMERA, 12MP 1.65MM	62
IPKAMA04FC	VANDALDOME IP CAMERA 4MP 2.8MM	53
IPKAMA04ZC	VANDALDOME IP CAMERA 4MP 2.8-12MM	53
IPKAMA08ZC	IP BULLET CAMERA 8MP 2.8MM	55
IPKYBA02A	ADVANCE IP CONTROL KEYPAD	87
IPLPRA04ZSWA	ANPR CAMERA 4MP 8-32MM	61
IPPTZA04Z04A	IP MINIPTZ CAMERA 4MP 4X	67
IPPTZA04Z25A	PTZ IP CAMERA, 2MP 25X AI	67
IPPTZA04Z40B	IP PTZ CAMERA, 4MP 40X	68
IPPTZA08Z37A	IP PTZ CAMERA, 8MP 37X	68
IPSCAMA08F04A	MULTISENSOR IP CAMERA 8MP 3MM	63
IPSWC160A	SWITCH, 16 GIGABIT PORTS	95
IPSWC242A	SWITCH, 24 PORTS 1GB + 2SFP, WEB MANAGED	95
IPSWN08N01A	SWITCH, 8 GIGABIT PORTS, NO POE	95
IPSWP02NA	REPEATER, 2 POE GIGABIT PORTS, IP67	97
IPSWP06N01A	POE SWITCH, 4 PORTS+2GE UPLINK, EXTERNAL PS	96
IPSWP06N02A	SWITCH, 4 POE PORTS + 2 SFP DIN MOUNTING	97
IPSWP06N100A	SWITCH, 4 POE PORTS + 2 UPLINK 10/100	98
IPSWP08N100A	SWITCH, 8 POE PORTS + 2 UPLINK 10/100	98
IPSWP10N01A	POE SWITCH, 8 PORTS+2GE GBIT UPLINK	96
IPSWP10N02A	SWITCH, 8 POE PORTS + 2 SFP GIGABIT DIN	97
IPSWP22N01A	POE SWITCH, 16 PORTS+4 COMBO+2GE, GIGABIT	96
IPTCAMA04FC	IP TURRET CAMERA, 4MP 2.8MM	52
IPTCAMA04FCB	TURRET IP CAMERA 4MP 2.8MM, BLACK	52
IPTCAMA04FCUB	IP TURRET CAMERA 4MP 2.8MM COLOR UP	58
IPTCAMA04ZC	IP TURRET CAMERA, 4MP 2.8-12MM	52
IPTCAMA04ZCUB	TURRET IP CAMERA 4MP 2.8-12MM, BLACK	52
IPTCAMA04ZCUB	IP TURRET CAMERA 4MP 2.8-12MM COLOR UP	58
IPTCAMA08FC	IP TURRET CAMERA, 8MP 2.8MM	55
IPTCAMA08ZC	IP TURRET CAMERA, 8MP 2.8-12MM	55
IPTCAMN04F01CUA	MINI IP TURRET CAMERA, 4MP 2.8MM COLOR UP	31
IPTCAMN04FB	IP TURRET CAMERA 4MP, 2.8MM, AI	27
IPTCAMN04ZB	IP TURRET CAMERA 4MP, 2.8-12MM, AI	27
IPTCAMN04ZCUA	IP TURRET CAMERA 4MP 2.8-12MM COLOR UP	31
IPTCAMN08FB	IP TURRET CAMERA 8MP, 2.8MM, AI	29
IPTCAMN08ZB	IP TURRET CAMERA, 8MP, 2.8-12MM, AI	29
IPTHBCAMA03A	BISPECTRUM THERMAL BULLET CAMERA 256*192 3.2MM	78
IPTHBCAMA05F01A	HEAT DET. BI-SP. BULLET CAMERA 5MP 384*288	81
IPTHBCAMA07A	BISPECTRUM THERMAL BULLET CAMERA 256*192 7MM	78
IPHPAN02FA	8" LCD PANEL FACE DET.	80
IPHTCAMA03A	BISPECTRUM THERMAL TURRET CAMERA 256*192 3.2MM	79
IPHTCAMA07A	BISPECTRUM THERMAL TURRET CAMERA 256*192 7MM	79
KITCPE-515A	PRECONFIGURED KIT 2 X CPE-515A	100
KITCPE-520A	PRECONFIGURED KIT 2 X CPE-520A	100
LBOX	METAL ENCLOSURE FOR NVR AND XVR, LARGE	87





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