COMELIT

WITH · YOU · ALWAYS

PROFESSIONAL
CCTV

Professional video surveillance solutions.

Video surveillance

Reference guide

COMELIT
WITH·YOU·ALWAYS

Comelit.

A GROUP OF 900 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, 6 Research and Development centres, more than 900 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.

D E S I G N
M I L A N O

CSQ
ISO 140001
CERTIFIED
COMPANY
ISO 14001

With You. Always.

OUR PROMISE, OUR COMMITMENT.

INSPECTIONS
ON-SITE TECHNICAL AND COMMERCIAL INSPECTIONS

CONSULTANCY
FREE CONSULTING FOR DESIGNING SPECIFIC PROJECTS

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

COMMISSIONING
IS FREE FOR ALL SYSTEMS

TELEPHONE SUPPORT
MONDAY TO FRIDAY, 08:30-18:00

COURSES
PROFESSIONAL REFRESHER COURSES ALSO AVAILABLE ONLINE AND ON DEMAND

WITH YOU ALWAYS

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
Designed to meet your needs.

Simple, straightforward and customised.
Thanks to all the services it provides, MyComelit makes work easier for all **industry professionals**: Installers, System integrators, Building managers, Designers, Security managers, Sales assistants and Architects.
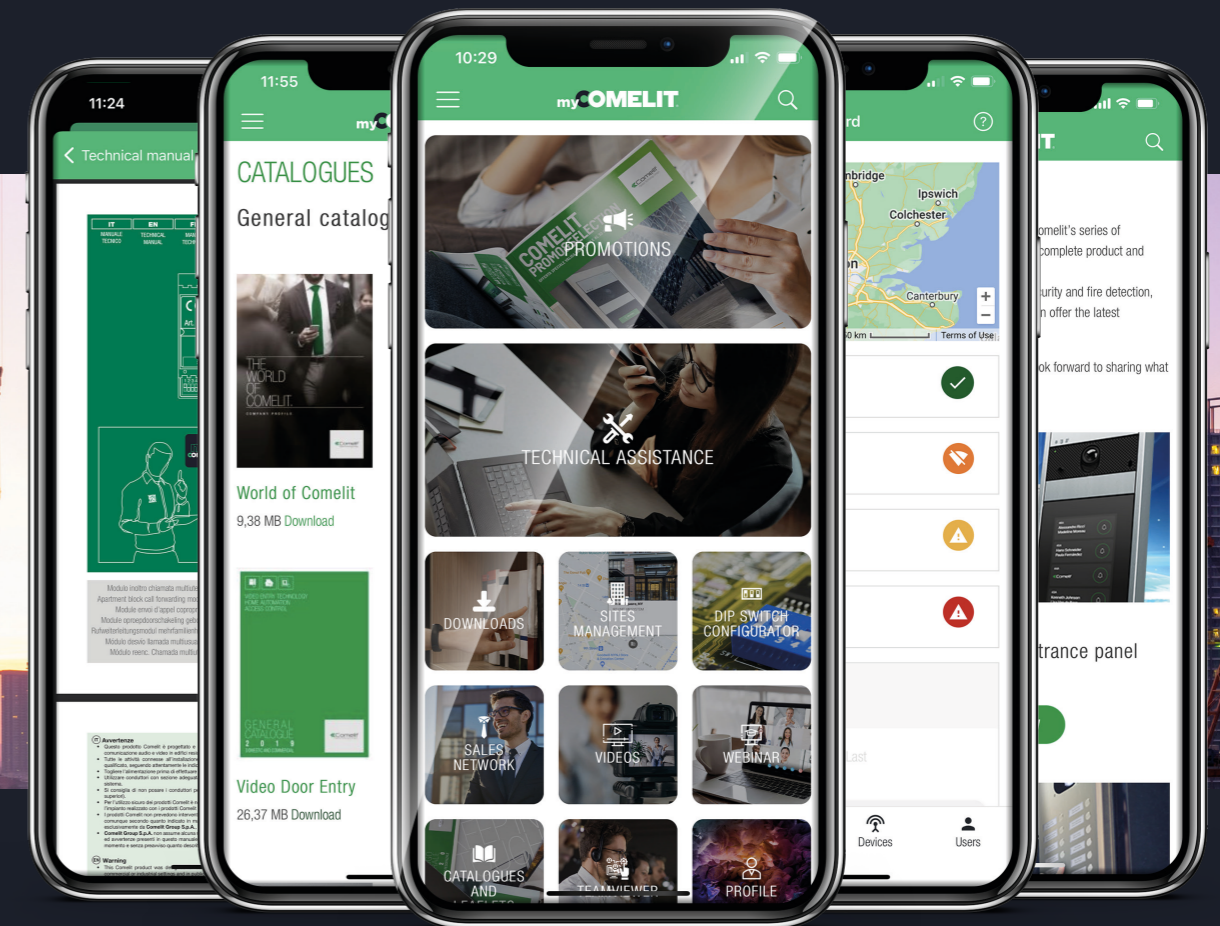
myCOMELIT®

THE APP YOU WON'T BE ABLE TO DO WITHOUT!

What are you waiting for?
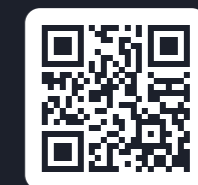
Available on the App Store

GET IT ON Google Play

JOIN THE MYCOMELIT WORLD NOW!

For the last 40 years

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

COMELIT®
WITH·YOU·ALWAYS

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.

First Vidicon single-card cameras produced		First analogue multiplexers and DVRs		First network DVRs with RAS management software		First IP CCTV system introduced		IP100 Series		Next Series

1980 · **1986** · **1990** · **2000** · **2003** · **2005** · **2012** · **2017** · **2020** · **2023**

First Italian company to produce CCD cameras

First digital DVRs

Video analysis and 700 Series introduced

Advance Series

From the choice of materials to production technologies:

Comelit quality is under surveillance.

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.
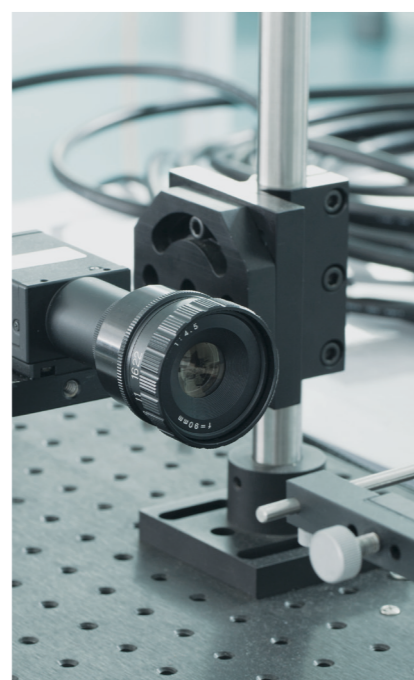
Electromagnetic compatibility tests

Emissions
- Conducted
- Radiated

Immunity
- ESD
- Burst
- Surge
- Conducted

Environmental tests

Waterproof (IP rating)
Vandalproof (IK rating)
Saline Mist (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 this data, we can obtain information that allows us to predict both our own behaviour and that of others.

It is for this reason that **cyber security** 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 paralysing 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.

GDPR COMPLIANT

NDAA COMPLIANT

" **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.**

ONVIF®

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 (lvl 4 ISO OSI)**

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

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.

Cyptography: 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.

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

Our range of products

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.
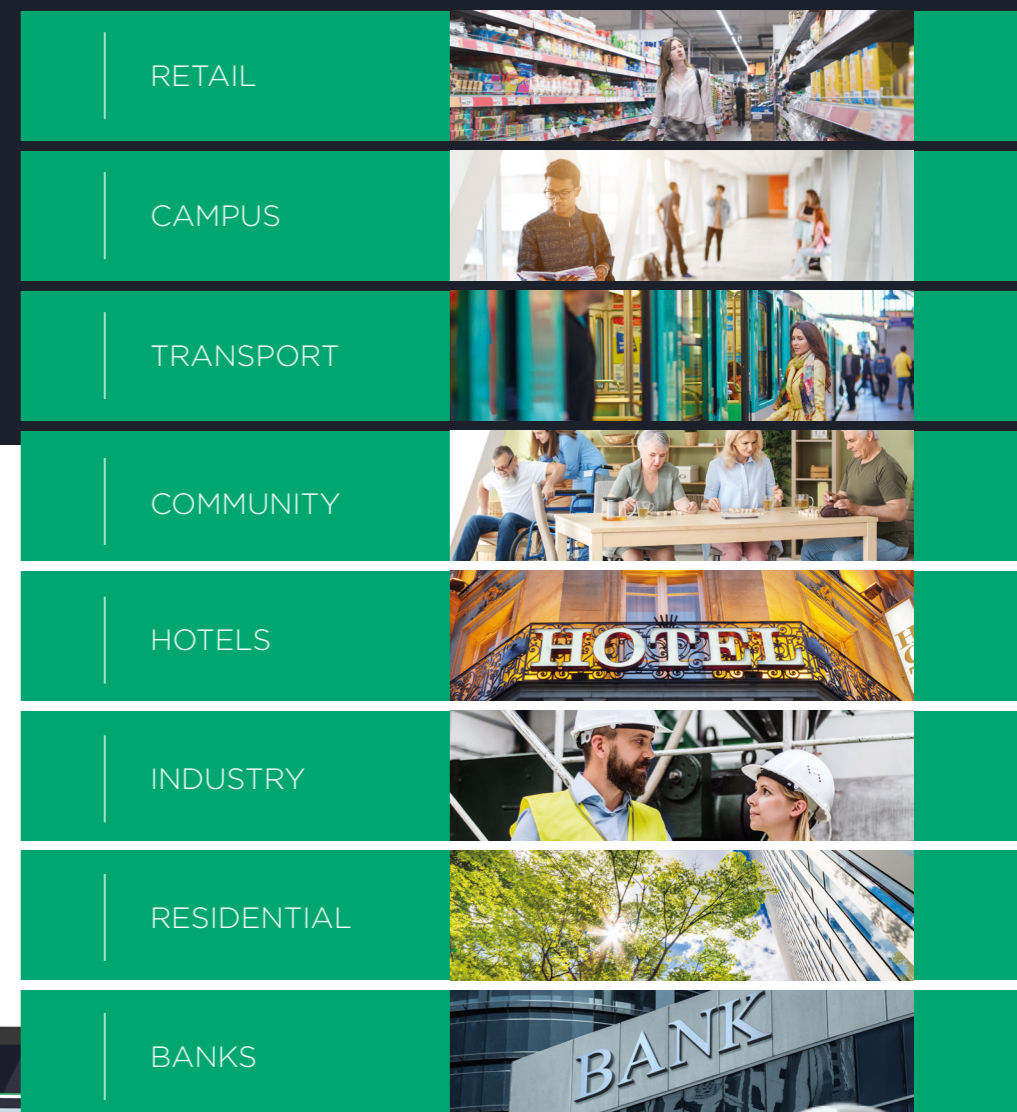**The Advance series**, on the other hand, offers very high standards when it comes to Deep Video Analytics (DVA), video analysis functions that are able to distinguish people, vehicles, bicycles and motorbikes, target counting functions, heat maps, from face recognition to metadata analysis (DVA 2.0), 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

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
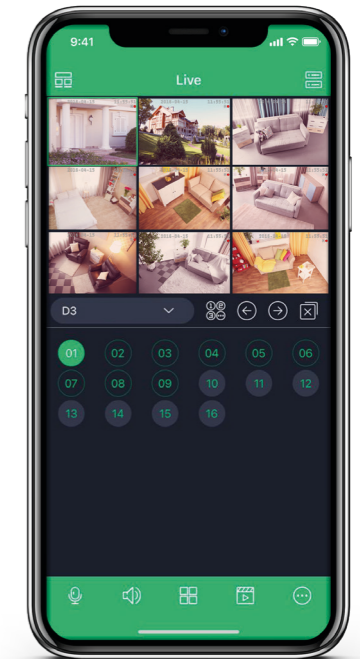
Content for sharing

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 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.

Download on the App Store

GET IT ON Google Play

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.

Comelit CCTV manager

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 30000 cameras

Unlimited clients

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.

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
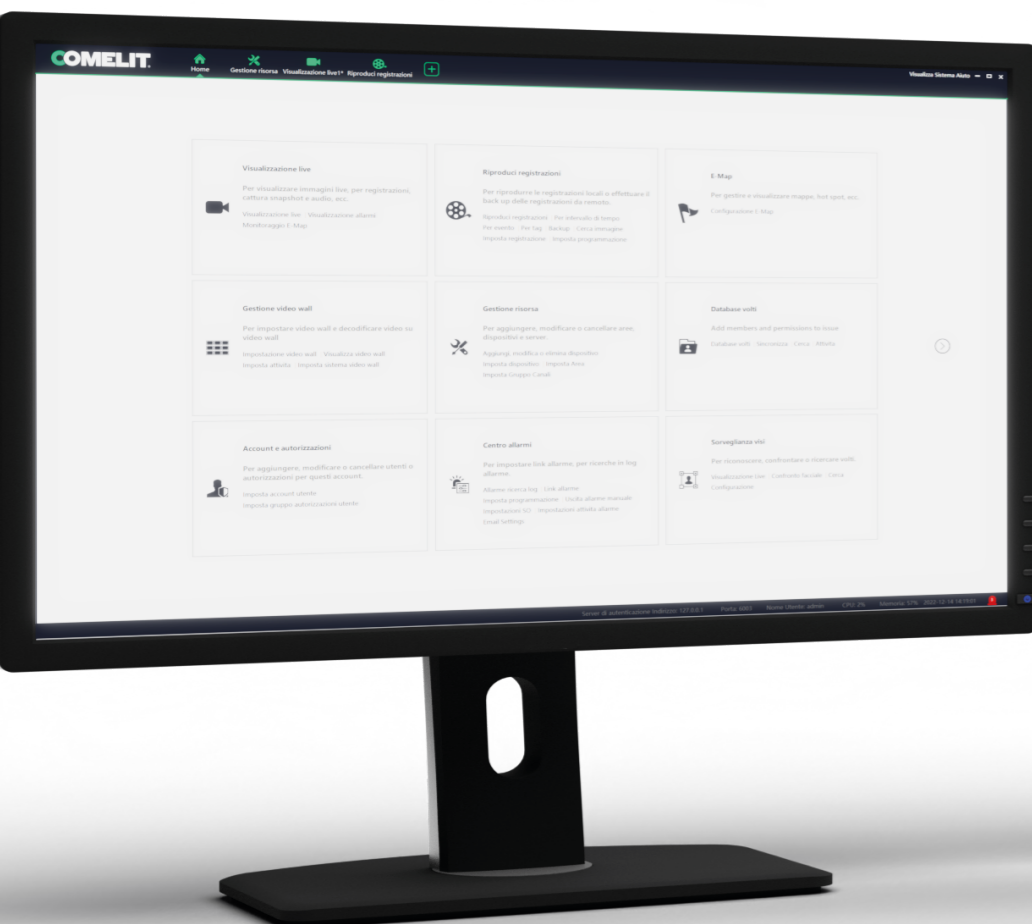
NEXT SERIES

Main functions

IP67

The cameras offer IP67 certification.

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.

4-8MP

4 MP to 8 MP (4K) resolution.

ALARM INPUTS AND OUTPUTS

Many models have alarm inputs and outputs.

TVS 6000V

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

ZOOM

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

3 STREAMING

All IP cameras in the Next series support 3 Streaming.

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.
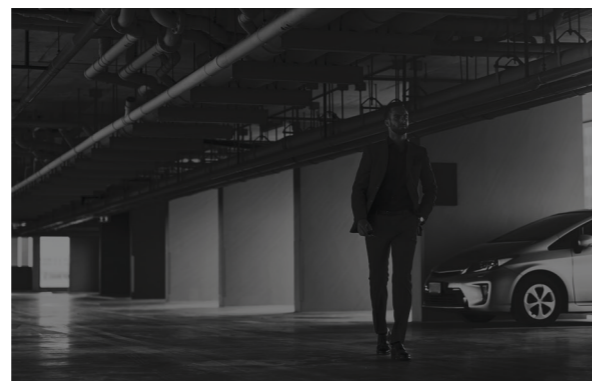
H.265+

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.

True WDR

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

ROI (Region Of Interest) zones

Ensures image quality and detail in several zones within the scene, optimising the overall bandwidth of the video stream.
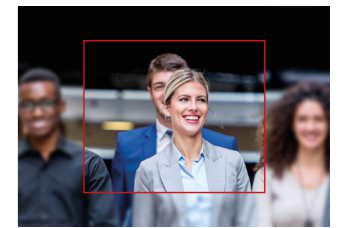
NEXT series ColorUP

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.

NEXT SERIES

IP Bullet 4MP

	ULTRA STARLIGHT	ULTRA STARLIGHT	ULTRA STARLIGHT
	IPBCAMN04F01A	IPBCAMN04FA	IPBCAMN04ZA
Sensor	1 / 3" CMOS	1 / 3" CMOS	1 / 3" CMOS
Resolution	2560x1440 (4MP)	2560x1440 (4MP)	2560x1440 (4MP)
Lens	2.8 mm, Fixed lens	2.8 mm, Fixed lens	2.8-12 mm, Motorised lens with autofocus
Min. Lighting	0.03 (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)
Day/Night	Auto(ICR)/Day/Night/Timed	Auto(ICR)/Day/Night/Timed	Auto(ICR)/Day/Night/Timed
IR LEDs	20 m (Smart IR)	50 m (Smart IR)	50 m (Smart IR)
WDR	Digital WDR	120 dB	120 dB
Starlight	Ultra starlight	Ultra starlight	Ultra starlight
White balancing	Auto/Manual/Indoor/Outdoor	Auto/Manual/Indoor/Outdoor	Auto/Manual/Indoor/Outdoor
BLC/DNR/HLC	BLC/3D DNR/HLC	BLC/3D DNR/HLC	BLC/3D DNR/HLC
Video Compression	H.265 / H.264 / MJPEG"	H.265 / H.264	H.265 / H.264 / MJPEG"
Frame rate	30fps	30fps	30fps
Multi Streaming	3 Streaming	3 Streaming	3 Streaming
Digital effects	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	Corridor mode (90°/180°/270° rotation), mirror mode (horizontal, vertical, 180° rotation), flip
Video Analysis	Line crossing, area entry	Line crossing, area entry	Line crossing, area entry
ROI zones	8	8	8
Privacy zones	4	4	4
Integration protocols	ONvif profile S,T	Onvif profile G,S,T	Onvif profile G,S,T
Micro SD Card slot	/	Built-in micro SD card slot (supports up to 256 GB)	Built-in micro SD card slot (supports up to 256 GB)
Audio Inputs/Outputs	/	1CH audio input	1CH audio input
IP rating	IP67	IP67	IP67
IK rating	/	IK10	IK10
Power supply	12 Vdc (<3.5W)	12 Vdc (<8W)	12 Vdc (<8W)
POE power supply	Standard IEEE802.3af	Standard IEEE802.3af	Standard IEEE802.3af
Operating temperature	-30°C - 60°C < 95% RH	-30°C - 60°C < 95% RH	-30°C - 60°C < 95% RH
Dimensions (mm)	161.5 x 73.7 x 74.7	218.1 x 79.5 x 70.4	218.1 x 79.5 x 70.4
Accessories	JBA-BA, CMA-BA, WMA-BA, PMA-A, AMA-A.	JBA-BA, CMA-BA, WMA-BA, PMA-A, AMA-A.	JBA-BA, CMA-BA, WMA-BA, PMA-A, AMA-A.

NEXT SERIES

IP Turret 4MP

	ULTRA STARLIGHT	ULTRA STARLIGHT	ULTRA STARLIGHT
	IPTCAMN04F01A	IPTCAMN04FA	IPTCAMN04ZA
Sensor	1 / 3" CMOS	1 / 3" CMOS	1 / 3" CMOS
Resolution	2560x1440 (4MP)	2560x1440 (4MP)	2560x1440 (4MP)
Lens	2.8 mm, Fixed lens	2.8 mm, Fixed lens	2.8-12 mm, Motorised lens with autofocus
Min. Lighting	0.03 (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)
Day/Night	Auto(ICR)/Day/Night/Timed	Auto(ICR)/Day/Night/Timed	Auto(ICR)/Day/Night/Timed
IR LEDs	20 m (Smart IR)	30 m (Smart IR)	50 m (Smart IR)
WDR	Digital WDR	120 dB	120 dB
Starlight	Ultra starlight	Ultra starlight	Ultra starlight
White balancing	Auto/Manual/Indoor/Outdoor	Auto/Manual/Indoor/Outdoor	Auto/Manual/Indoor/Outdoor
BLC/DNR/HLC	BLC/3D DNR/HLC	BLC/3D DNR/HLC	BLC/3D DNR/HLC
Video Compression	H.265 / H.264 / MJPEG	H.265 / H.264 / MJPEG	H.265 / H.264 / MJPEG
Frame rate	30fps	30fps	30fps
Multi Streaming	3 Streaming	3 Streaming	3 Streaming
Digital effects	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	Corridor mode (90°/180°/270° rotation), mirror mode (horizontal, vertical, 180° rotation), flip
Video Analysis	Line crossing, area entry	Line crossing, area entry	Line crossing, area entry
ROI zones	8	8	8
Privacy zones	4	4	4
Integration protocols	Onvif profile S,T	Onvif profile G,S,T	Onvif profile G,S,T
Micro SD Card slot	/	Built-in micro SD card slot (supports up to 256 GB)	Built-in micro SD card slot (supports up to 256 GB)
Audio Inputs/Outputs	1 (microphone) / -	1 CH audio input + 1 (microphone) / -	1 CH audio input + 1 (microphone) / -
IP rating	IP67	IP67	IP67
IK rating	/	IK10	IK10
Power supply	12 Vdc (<4.5W)	12 Vdc (<5W)	12 Vdc (<8W)
POE power supply	Standard IEEE802.3af	Standard IEEE802.3af	Standard IEEE802.3af
Operating temperature	-30°C - 60°C < 95% RH	-30°C - 60°C < 95% RH	-30°C - 60°C < 95% RH
Dimensions (mm)	82.2 x 94.8 x 94.8	108 x 95.7 x 95.7	109.3 x 130.7 x 130.7
Accessories	JBA-BA, CMA-BA, WMA-BA, PMA-A, AMA-A.	JBA-TBBA, CMA-KTBBA, WMA-KTBBA, PMA-A, AMA-A.	JBATVA, CMA-TVA, WMA-TVA, PMA-A, AMA-A

NEXT SERIES

IP Bullet 8MP

	ULTRA STARLIGHT	ULTRA STARLIGHT
	IPBCAMN08FA	IPBCAMN08ZA
Sensor	1/2.8'' CMOS	1/2.8'' CMOS
Resolution	3840x2160 (8MP)	3840x2160 (8MP)
Lens	2.8 mm, Fixed lens	2.8-12 mm, Motorised lens with autofocus
Min. Lighting	0.018 (colour), 0 (black and white, IR LEDs ON)	0.018 (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)	50 m (Smart IR)
WDR	120 dB	120 dB
Starlight	Ultra starlight	Ultra starlight
White balancing	Auto/Manual/Indoor/Outdoor	Auto/Manual/Indoor/Outdoor
BLC/DNR/HLC	BLC/3D DNR/HLC	BLC/3D DNR/HLC
Video Compression	H.265+ / H.265 / H.264+ / H.264 / MJPEG	H.265+ / H.265 / H.264+ / H.264 / MJPEG
Frame rate	20fps	20fps
Multi Streaming	3 Streaming	3 Streaming
Digital effects	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
Video Analysis	Line crossing, area entry	Line crossing, area entry
ROI zones	8	8
Privacy zones	4	4
Integration protocols	Onvif Protocol G,S	Onvif Protocol G,S
Micro SD Card slot	Built-in micro SD card slot (supports up to 256 GB)	Built-in micro SD card slot (supports up to 256 GB)
Audio Inputs/Outputs	1CH audio input	1CH audio input
IP rating	IP67	IP67
IK rating	IK10	IK10
Power supply	12 Vdc (<10W)	12 Vdc (<10W)
POE power supply	Standard IEEE802.3af	Standard IEEE802.3af
Operating temperature	-30°C - 60°C < 95% RH	-30°C - 60°C < 95% RH
Dimensions (mm)	218.1 x 79.5 x 70.4	218.1 x 79.5 x 70.4
Accessories	JBA-BA, CMA-BA, WMA-BA, PMA-A, AMA-A.	JBA-BA, CMA-BA, WMA-BA, PMA-A, AMA-A.

NEXT SERIES

IP Turret 8MP

	ULTRA STARLIGHT	ULTRA STARLIGHT
	IPTCAMN08FA	IPTCAMN08ZA
Sensor	1/2.8'' CMOS	1/2.8'' CMOS
Resolution	3840x2160 (8MP)	3840x2160 (8MP)
Lens	2.8 mm, Fixed lens	2.8-12 mm, Motorised lens with autofocus
Min. Lighting	0.03 (colour), 0 (black and white, IR LEDs ON)	0.03 (colour), 0 (black and white, IR LEDs ON)
Day/Night	Auto(ICR)/Day/Night/Timed	Auto(ICR)/Day/Night/Timed
IR LEDs	30 m (Smart IR)	50 m (Smart IR)
WDR	120 dB	120 dB
Starlight	Ultra starlight	Ultra starlight
White balancing	Auto/Manual/Indoor/Outdoor	Auto/Manual/Indoor/Outdoor
BLC/DNR/HLC	BLC/3D DNR/HLC	BLC/3D DNR/HLC
Video Compression	H.265+ / H.265 / H.264+ / H.264 / MJPEG	H.265+ / H.265 / H.264+ / H.264 / MJPEG
Frame rate	20fps	20fps
Multi Streaming	3 Streaming	3 Streaming
Digital effects	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
Video Analysis	Line crossing, area entry	Line crossing, area entry
ROI zones	8	8
Privacy zones	4	4
Integration protocols	Onvif Protocol G,S	Onvif Protocol G,S
Micro SD Card slot	Built-in micro SD card slot (supports up to 256 GB)	Built-in micro SD card slot (supports up to 256 GB)
Audio Inputs/Outputs	1 (RCA) + 1 (microphone) / -	1 (RCA) + 1 (microphone) / -
IP rating	IP67	IP67
IK rating	IK10	IK10
Power supply	12 Vdc (<7.5W)	12 Vdc (<8W)
POE power supply	Standard IEEE802.3af	Standard IEEE802.3af
Operating temperature	-30°C - 60°C < 95% RH	-30°C - 60°C < 95% RH
Dimensions (mm)	108 x 95.7 x 95.7	109.3 x 130.7 x 130.7
Accessories	JBA-TBBA, CMA-KTBBA, WMA-KTBBA, PMA-A, AMA-A.	JBA-TVA, CMA-TVA, WMA-TVA, PMA-A, AMA-A.

NEXT SERIES

ColorUP

	IPBCAMN04FCUA	IPBCAMN04ZCUA
Sensor	1 / 3" CMOS	1 / 3" CMOS
Resolution	2592 x 1520 (4MP)	2592 x 1520 (4MP)
Lens	2.8 mm, Fixed lens	2.8-12 mm, Motorised lens with autofocus
Min. Lighting	0.0005 (colour @F1.0) with LED light on	0.0005 (colour @F1.4) with LED light on
Day/Night	Auto(ICR)/Day/Night/Timed	Auto(ICR)/Day/Night/Timed
White LED	40 m	40 m
IR LEDs	/	30 m (Smart IR)
Dual Light function	/	Yes
WDR	120 dB	120 dB
White balancing	Auto/Manual/Indoor/Outdoor	Auto/Manual/Indoor/Outdoor
BLC/DNR/HLC	BLC/3D DNR/HLC	BLC/3D DNR/HLC
Video Compression	H.265 / H.264 / MJPEG	H.265 / H.264 / MJPEG
Frame rate	30fps	30fps
Multi Streaming	3 Streaming	3 Streaming
Digital effects	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
Video Analysis	Line crossing, area entry	Line crossing, area entry
ROI zones	8	8
Privacy zones	4	4
Integration protocols	Onvif Protocol G,S,T	Onvif Protocol G,S,T
Micro SD Card slot	Built-in micro SD card slot (supports up to 256 GB)	Built-in micro SD card slot (supports up to 256 GB)
Audio Inputs/Outputs	1 CH audio input, 1 (microphone) / -	1 CH audio input, 1 (microphone) / -
IP rating	IP67	IP67
IK rating	IK10	IK10
Power supply	12 Vdc (<10W)	12 Vdc (<10W)
POE power supply	Standard IEEE802.3af	Standard IEEE802.3af
Operating temperature	-30°C - 60°C < 95% RH	-30°C - 60°C < 95% RH
Dimensions (mm)	217.8 x 80.5 x 80.3	217.8 x 80.5 x 80.3
Accessories	JBA-BA, CMA-BA, WMA-BA, PMA-A, AMA-A.	JBA-BA, CMA-BA, WMA-BA, PMA-A, AMA-A.

	IPTCAMN04FCUA	IPTCAMN04ZCUA
Sensor	1 / 3" CMOS	1 / 3" CMOS
Resolution	2560x1440 (4MP)	2560x1440 (4MP)
Lens	2.8 mm, Fixed lens	2.8-12 mm, Motorised lens with autofocus
Min. Lighting	0.0005 (colour @F1.0) with LED light on	0.0005 (colour @F1.0) with LED light on
Day/Night	Auto(ICR)/Day/Night/Timed	Auto(ICR)/Day/Night/Timed
White LED	30 m	40 m
IR LEDs	/	30 m (Smart IR)
Dual Light function	/	Yes
WDR	120 dB	120 dB
White balancing	Auto/Manual/Indoor/Outdoor	Auto/Manual/Indoor/Outdoor
BLC/DNR/HLC	BLC/3D DNR/HLC	BLC/3D DNR/HLC
Video Compression	H.265 / H.264 / MJPEG	H.265 / H.264 / MJPEG
Frame rate	30fps	30fps
Multi Streaming	3 Streaming	3 Streaming
Digital effects	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
Video Analysis	Line crossing, area entry	Line crossing, area entry
ROI zones	8	8
Privacy zones	4	4
Integration protocols	Onvif Protocol G,S,T	Onvif Protocol G,S,T
Micro SD Card slot	Built-in micro SD card slot (supports up to 256 GB)	Built-in micro SD card slot (supports up to 256 GB)
Audio Inputs/Outputs	1 CH audio input, 1 (microphone) / -	1 CH audio input, 1 (microphone) / -
IP rating	IP67	IP67
IK rating	IK10	IK10
Power supply	12 Vdc (<10W)	12 Vdc (<10W)
POE power supply	Standard IEEE802.3af	Standard IEEE802.3af
Operating temperature	-30°C - 60°C < 95% RH	-30°C - 60°C < 95% RH
Dimensions (mm)	82.8 x 94.6 x 94.6	99.6 x 111.6 x 111.6
Accessories	JBA-BA, CMA-BA, WMA-BA, PMA-A, AMA-A.	JBA-TBBA, CMA-KTBBA, WMA-KTBBA, PMA-A, AMA-A.

NEXT SERIES

NVR / XVR

MAIN FUNCTIONS

8MP

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

E-SATA

The E-Sata port can be used to connect, if necessary, 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.
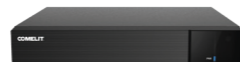
SMART SEARCH

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

NEXT SERIES

NVRs

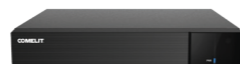|	IPNVR004N06PA IPNVR004N06PASL (no HDD)	IPNVR008N06PA IPNVR008N06PASL (no HDD)
IP cameras	4ch	8ch
Max. Recording resolution	4Ch@ 6MP / 5MP / 4MP / 3MP / 1080P / 1280x1024 / 960P / 720P / 960H / D1 / CIF	8Ch@ 6MP / 5MP / 4MP / 3MP / 1080P / 1280x1024 / 960P / 720P / 960H / D1 / CIF
POE ports	4 x Ethernet (10/100/1000Mbps) PoE (IEEE802.3af)	8 x Ethernet (10/100/1000Mbps) PoE (IEEE802.3af)
Video outputs	1 (VGA), 1 (HDMI), 1920x1080	1 (VGA), 1 (HDMI), 1920x1080
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 @20fps (PAL/NTSC) 5MP/4MP/3MP/1080P/960P/720P/960H/D1/CIF (1-25/30fps) (PAL/NTSC) Sub stream:960H (1-25/30fps);D1/CIF/ (1-25/30fps)" (PAL/NTSC)	Main stream: 6MP @20fps (PAL/NTSC) 5MP/4MP/3MP/1080P/960P/720P/960H/D1/CIF (1-25/30fps) (PAL/NTSC) Sub stream:960H (1-25/30fps);D1/CIF/ (1-25/30fps)" (PAL/NTSC)
Synchronised playback	1CH 6MP / 4CH 720P	1CH 6MP / 4CH 720P / 8CH D1
Video Analysis	Video analysis (only with dedicated cameras)	Video analysis (only with dedicated cameras)
HDD interface	1 SATA, (Maximum Hard Disk capacity 6TB)	1 SATA, (Maximum Hard Disk capacity 6TB)
HDD included	1TB	1TB
Bandwidth	28Mbps	40Mbps
Max simultaneous connections	10	10
Network interface	RJ 45 x 1 (10/100/1000Mbps)	RJ 45 x 1 (10/100/1000Mbps)
Serial ports	2 x USB 2.0	2 x USB 2.0
Power supply	DC 48V/1.25A	DC 48V/2.5A
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

	IPNVR016N08PA IPNVR016N08PASL (no HDD)	IPNVR016N08NA IPNVR016N08NASL (no HDD)
IP cameras	16ch	16ch
Max. Recording resolution	16Ch@ 8MP / 6MP / 5MP / 4MP / 3MP / 1080P / 1280x1024 / 960P / 720P / 960H / D1 / CIF	16Ch@ 8MP / 6MP / 1280x1024 / 960H / D1 / CIF / 5MP / 4MP / 3MP / 1080P / 960P / 720P
POE ports	16 x Ethernet (10/100/1000Mbps) PoE (IEEE802.3af)	/
Video outputs	1 HDMI (4K) 1 VGA (1920x1080)	1 HDMI (4K) 1 VGA (1920x1080)
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/960P/720P/960H/ D1/CIF (1-25/30fps) (PAL/NTSC) Sub stream: 960H (1-25/30fps);D1/CIF/ (1-25/30fps)" (PAL/NTSC)	Main stream: 8MP/6MP/5MP/4MP/3MP/1080P/960P/720P/960H/ D1/CIF (1-25/30fps) (PAL/NTSC) Sub stream: 960H (1-25/30fps);D1/CIF/ (1-25/30fps)" (PAL/NTSC)
Synchronised playback	1CH 8MP / 4CH 1080P / 9CH D1 / 16CH D1	1CH 8MP / 4CH 1080P / 9CH D1/ 16CH D1
Video Analysis	Video analysis (only with dedicated cameras)	Video analysis (only with dedicated cameras)
HDD interface	2 SATA, (Maximum Hard Disk capacity 8TB)	2 SATA, (Maximum Hard Disk capacity 8TB)
HDD included	2TB	2TB
Bandwidth	112Mbps	112Mbps
Max simultaneous connections	10	20
Network interface	RJ 45 x 1 (10/100/1000Mbps)	RJ 45 x 1 (10/100/1000Mbps)
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

NEXT SERIES

XVRs

	AHDVR004N05A AHDVR004N05ASL (no HDD)	AHDVR008N05A AHDVR008N05ASL (no HDD)		AHDVR016N05A AHDVR016N05ASL (no HDD)
Analogue inputs	4 CH	8 CH	Analogue inputs	16 CH
IP Cameras	2CH@5MP	4CH@5MP	IP Cameras	8CH@5MP
Recording resolution	5MP / 4MP / 1080P / 720P / WD1	5MP / 4MP / 1080P / 720P / WD1	Recording resolution	5MP/4MP/3MP/1080P/720P/WD1
Analogue technologies supported	AHD/TVI/CVI/CVBS	AHD/TVI/CVI/CVBS	Analogue technologies supported	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)	Hybrid mode	Analogue+Network: 16CH Analogue (MAX 5MP) +8 IPC (MAX 5MP)
Video outputs	1 (VGA), 1 (HDMI), 1920x1080	1 (VGA), 1 (HDMI), 1920x1080	Video outputs	1 (VGA), 1 (HDMI), 1920x1080
Recording type	Dual Streaming	Dual Streaming	Recording type	Dual Streaming
Video Compression	H.264/H.265	H.264/H.265	Video Compression	H.264/H.265
Recording Rate	Analogue channels: 5MP Lite: 10fps; 4MP Lite/1080P: 12fps (PAL)/15fps (NTSC); 1080P Lite/720P/WD1: 25fps (PAL)/30fps (NTSC) IP cameras: Main stream: 5MP/4MP/3MP/1080P/960P/720P/960H/D1/CIF (1-25/30fps) (PAL/NTSC) Sub stream: 1080P 960H (1-25/30fps);D1/CIF/ (1-25/30fps) (PAL/NTSC)	Analogue channels: 5MP Lite: 10fps; 4MP Lite/1080P: 12fps (PAL)/15fps (NTSC); 1080P Lite/720P/WD1: 25fps (PAL)/30fps (NTSC) IP cameras: Main stream: 5MP/4MP/3MP/1080P/960P/720P/960H/D1/CIF (1-25/30fps) (PAL/NTSC) Sub stream: 1080P 960H (1-25/30fps); D1/CIF/ (1-25/30fps) (PAL/NTSC)	Recording Rate	Analogue channels: 5MP Lite: 10fps 4MP Lite/1080P: 12fps(PAL)/15fps(NTSC) 1080P Lite/720P/WD1/D1: 25fps (PAL) / 30fps (NTSC) IP cameras: Main stream: 5MP/4MP/3MP/1080P/960P/720P/960H/D1/CIF (1-25/30fps) (PAL/NTSC) Sub stream: 1080P 960H (1-25/30fps); D1/CIF/ (1-25/30fps) (PAL/NTSC)
Synchronised playback	1CH 5MP / 4CH D1	1CH 5MP / 4CH 2MP / 8CH D1	Synchronised playback	1CH 5MP / 4CH 2MP / 8CH D1
Video Analysis	Video analysis (only with dedicated cameras)	Video analysis (only with dedicated cameras)	Video Analysis	Video analysis (only with dedicated cameras)
HDD interface	1 SATA, (Maximum Hard Disk capacity 10TB)	1 SATA, (Maximum Hard Disk capacity 10TB)	HDD interface	1 SATA, (Maximum Hard Disk capacity 10TB)
HDD included	1TB	1TB	HDD included	2TB
Bandwidth	16	32	Bandwidth	32
Max simultaneous connections	5	5	Max simultaneous connections	10
Network interface	RJ45 x 1 (10 / 100 / 1000 Mbps)	RJ45 x 1 (10 / 100 / 1000 Mbps)	Network interface	RJ45 x 1 (10 / 100 / 1000 Mbps)
Serial interface	2x USB 2.0	2x USB 2.0	Serial interface	2x USB 2.0
Power supply	12VDC	12VDC	Power supply	12VDC
Operating temperature	-10°C - 50°C < 90% RH	-10°C - 50°C < 90% RH	Operating temperature	-10°C - 50°C < 90% RH
Dimensions (mm) HxWxD	42 x 255 x 222	42 x 255 x 222	Dimensions (mm) HxWxD	42 x 255 x 234

	AHDCAMS05F01A	AHDCAMS05FB	AHDCAMS05ZB
Resolution	1920x1080 (Full HD)	2592x1944 (5MP)	2592x1944 (5MP)
Lens	3.6	3.6 mm	2.7 – 13.5
Frame rate	2MP@30fps	5MP@20fps	5MP@20fps
IR LEDs	10 m (Smart IR)	20 m (Smart IR)	30 m (Smart IR)
WDR	DWDR	DWDR	WDR (120dB)
Video output	AHD,TVI,CVI,CVBS (960H)	AHD,TVI,CVI,CVBS (960H)	AHD,TVI,CVI,CVBS (960H)
UTC control	Yes	Yes	Yes
Back light compensation	BLC	BLC	BLC, HLC
Compatible accessories	/	JBS01PA / JBSFIX66A / PMS01A / WMSFIX01A	JBSVARI66A / PMS01A / WMSFIX01A

	AHBCAMS05ZB	AHBCAMS08FB	AHBCAMS08ZB
Resolution	2592x1944 (5 MP)	3840x2160 (8 MP)	3840x2160 (8 MP)
Lens	2.7 - 13.5	3.6	2.7 - 13.5
Frame rate	5MP@20fps	8MP@15fps	8MP@15fps
IR LEDs	40 m (Smart IR)	25 m (Smart IR)	40 m (Smart IR)
WDR	WDR (120 dB)	WDR (120 dB)	WDR (120 dB)
Video output	AHD,TVI,CVI,CVBS (960H)	AHD,TVI,CVI,CVBS (960H)	AHD,TVI,CVI,CVBS (960H)
UTC control	Yes	Yes	Yes
Back light compensation	BLC, HLC	BLC, HLC	BLC
Compatible accessories	JBSVARI66A / PMS01A	JBS01PA / JBSFIX66A / PMS01A	JBSVARI66A / PMS01A

	AHDCAMS08FB	AHDCAMS08ZB	AHBCAMS05FB
Resolution	3840x2160 (8 MP)	3840x2160 (8 MP)	2592x1944 (5 MP)
Lens	3.6	2.7 - 13.5	3.6
Frame rate	8MP@15fps	8MP@15fps	5MP@20fps
IR LEDs	20 m (Smart IR)	30 m (Smart IR)	25 m (Smart IR)
WDR	WDR (120 dB)	WDR (120 dB)	DWDR
Video output	AHD,TVI,CVI,CVBS (960H)	AHD,TVI,CVI,CVBS (960H)	AHD,TVI,CVI,CVBS (960H)
UTC control	Yes	Yes	Yes
Back light compensation	BLC, HLC	BLC, HLC	BLC
Compatible accessories	JBS01PA / JBSFIX66A / PMS01A / WMSFIX01A	JBSVARI66A / PMS01A / WMSFIX01A	JBS01PA / JBSVARI66A / PMS01A

	AHSCAMS05F01A	AHSCAMS05F02A	AHSCAMS02F03A
Resolution	1920x1080 (Full HD)	1920x1080 (Full HD)	1920x1080 (Full HD)
Lens	3.7	3.6	3.7
Frame rate	2MP@30fps	2MP@30fps	2MP@30fps
IR LEDs	/	/	/
WDR	WDR (120 dB)	DWDR	DWDR
Video output	AHD,TVI,CVI,CVBS (960H)	AHD,TVI,CVI,CVBS (960H)	AHD,TVI,CVI,CVBS (960H)
UTC control	Yes	Yes	Yes
Back light compensation	BLC, HLC	BLC	BLC
Compatible accessories	/	/	/

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 offer IP67 certification.

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.
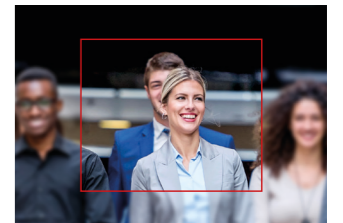
True WDR

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

ROI (Region Of Interest) zones

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

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. If one or more configured lines are crossed, an alarm is generated, a customised audio message is played through the speaker built into the camera and the blue and red LEDs come on, acting as a deterrent.
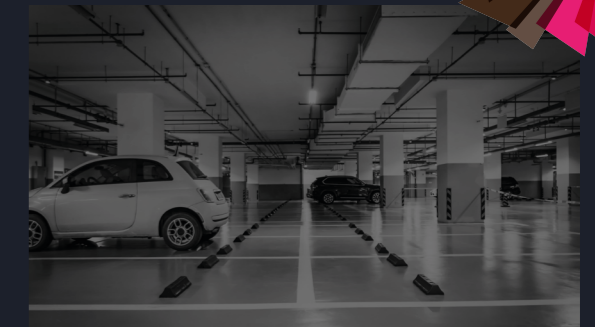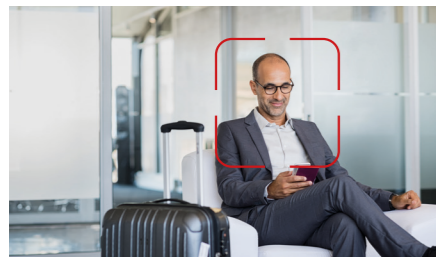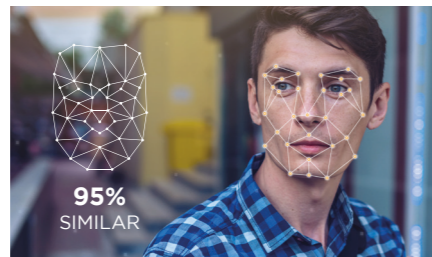
ADVANCE SERIES

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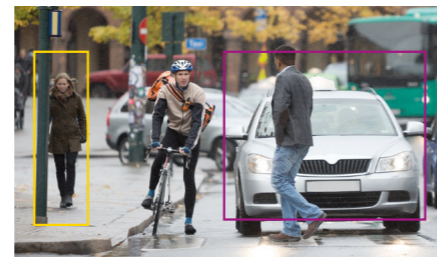
Offers reliable identification of the target and allows identification of people, vehicles, bikes and motorcycles, eliminating false alarms generated by atmospheric events, animals or moving objects.

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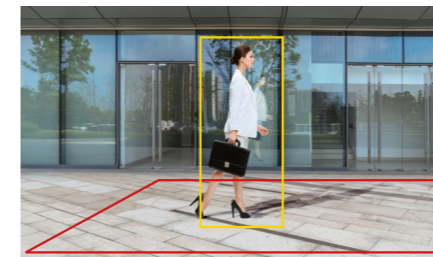
An alarm is generated if there is an intrusion within an area. It is also possible to identify whether it is a person or a vehicle entering the programmed area, creating custom alarm activation rules.

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.

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.

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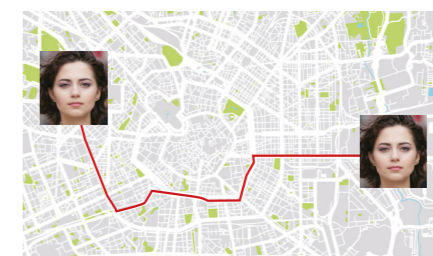
This function allows the cameras located on an online map to detect a human face and, in dynamic mode, shows its movement within the map.

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.

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.
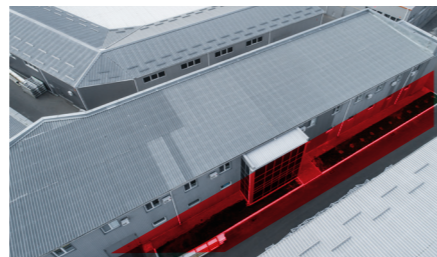
FACE ACCESS CONTROL

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.

OBJECT REMOVED/ABANDONED

An alarm is generated whenever an object is removed or abandoned within a programmed area.

180° PANORAMIC IMAGES

Multi-sensor cameras can be used to capture high-definition 180° images in any atmospheric conditions. 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.

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@60fps), 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 Next series support 3 Streaming.

ADVANCE SERIES

IP Turret 4MP

	ULTRA STARLIGHT		ULTRA STARLIGHT	
	IPTCAMA04FB	**IPTCAMA04FBB**	**IPTCAMA04ZB**	**IPTCAMA04ZBB**
Sensor	1 / 3" CMOS		1 / 3" CMOS	
Resolution	2592 x 1520 (4MP)		2592 x 1520 (4MP)	
Lens	2.8 mm, Fixed lens		2.8-12 mm, Motorised lens with autofocus	
Min. Lighting	0.005 (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	30 m (Smart IR)		50 m (Smart IR)	
WDR	120 dB		120 dB	
Starlight	Ultra Starlight		Ultra Starlight	
White balancing	Auto/Manual/Indoor/Outdoor		Auto/Manual/Indoor/Outdoor	
BLC/DNR/HLC	BLC/3D DNR/HLC		BLC/3D DNR/HLC	
Video Compression	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 /	
Frame rate	30fps; HFR mode 60fps		30fps; HFR mode 60fps	
Multi Streaming	3 Streaming		3 Streaming	
Digital effects	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	
DVA Video Analysis* Entry into/Exit from/Intrusion into an area (distinction between 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, face capture, target counting (humans/vehicles), motion detection, object abandoned/removed, heat map		Entry into/Exit from/Intrusion into an area (distinction between humans/vehicles), line crossing (distinction between humans/vehicles), video tampering, scene change, face detection, face capture, target counting (humans/vehicles), motion detection, object abandoned/removed, heat map	
ROI zones	8		8	
Privacy zones	4		4	
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)		Built-in micro SD card slot (supports up to 256 GB)	
Alarm Inputs/Outputs	/		/	
Audio Inputs/Outputs	1CH audio input; Built-in microphone x 1		1CH audio input; Built-in microphone x 1	
IP rating	IP67		IP67	
IK rating	IK10		IK10	
Power supply	12 Vdc (<7.5W)		12 Vdc (<9.5W)	
POE power supply	Standard IEEE802.3af		Standard IEEE802.3af	
Operating temperature	-30°C - 60°C < 95% RH		-30°C - 60°C < 95% RH	
Dimensions (mm)	94.6 x 94.6 x 82.8		111.5 x 111.5 x 99.6	
Accessories	JBA-TBBA, CMA-KTBBA, WMA-KTBBA, PMA-A, AMA-A.		JBA-TVA, CMA-TVA, WMA-TVA, PMA-A, AMA-A.	

	ULTRA STARLIGHT	ULTRA STARLIGHT
	IPKCAMA04ZB	**IPKCAMA04FB**
Sensor	1 / 3" CMOS	1 / 3" CMOS
Resolution	2592 x 1520 (4MP)	2592 x 1520 (4MP)
Lens	2.8-12 mm, Motorised lens with autofocus	2.8 mm, Fixed lens
Min. Lighting	0.005 (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)	20 m (Smart IR)
WDR	120 dB	120 dB
Starlight	Ultra Starlight	Ultra Starlight
White balancing	Auto/Manual/Indoor/Outdoor	Auto/Manual/Indoor/Outdoor
BLC/DNR/HLC	BLC/3D DNR/HLC	BLC/3D DNR/HLC
Video Compression	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
Frame rate	30fps; HFR mode 60fps	30fps; HFR mode 60fps
Multi Streaming	3 Streaming	3 Streaming
Digital effects	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
DVA Video Analysis* Entry into/Exit from/Intrusion into an area (distinction between 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, face capture, target counting (humans/vehicles), motion detection, object abandoned/removed, heat map	Entry into/Exit from/Intrusion into an area (distinction between humans/vehicles), line crossing (distinction between humans/vehicles), video tampering, scene change, face detection, face capture, target counting (humans/vehicles), motion detection, object abandoned/removed, heat map
ROI zones	8	8
Privacy zones	4	4
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)	Built-in micro SD card slot (supports up to 256 GB)
Alarm Inputs/Outputs	1 input - 1 output	/
Audio Inputs/Outputs	1CH audio input; Built-in microphone x 1, 1 audio output	1CH audio input; Built-in microphone x 1
IP rating	IP67	IP66
IK rating	IK10	IK10
Power supply	12 Vdc (<8W)	12 Vdc (<6W)
POE power supply	Standard IEEE802.3af	Standard IEEE802.3af
Operating temperature	-30°C - 60°C < 95% RH	-30°C - 60°C < 95% RH
Dimensions (mm)	141 x 141 x 100.2	59.8 x 59.8 x 110
Accessories	JBA-BA, CMA-BA, WMA-BA, PMA-A, AMA-A.	/

ADVANCE SERIES

IP Bullet 4MP

	ULTRA STARLIGHT	ULTRA STARLIGHT	ULTRA STARLIGHT
	IPBCAMA04FB IPBCAMA04FBB	IPBCAMA04ZB IPBCAMA04ZBB	IPBCAMA04Z01B
Sensor	1 / 3" CMOS	1 / 3" CMOS	1 / 3" CMOS
Resolution	2592 x 1520 (4MP)	2592 x 1520 (4MP)	2592 x 1520 (4MP)
Lens	2.8 mm, Fixed lens	2.8-12 mm, Motorised lens with autofocus	2.8-12 mm, Motorised lens with autofocus
Min. Lighting	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)
Day/Night	Auto(ICR)/Day/Night/Timed	Auto(ICR)/Day/Night/Timed	Auto(ICR)/Day/Night/Timed
IR LEDs	50 m (Smart IR)	50 m (Smart IR)	70 m (Smart IR)
WDR	120 dB	120 dB	120 dB
Starlight	Ultra Starlight	Ultra Starlight	Ultra Starlight
White balancing	Auto/Manual/Indoor/Outdoor	Auto/Manual/Indoor/Outdoor	Auto/Manual/Indoor/Outdoor
BLC/DNR/HLC	BLC/3D DNR/HLC	BLC/3D DNR/HLC	BLC/3D DNR/HLC
Video Compression	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
Frame rate	30fps; HFR mode 60fps	30fps; HFR mode 60fps	30fps; HFR mode 60fps
Multi Streaming	3 Streaming	3 Streaming	3 Streaming
Digital effects	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
DVA Video Analysis*	Entry into/Exit from/Intrusion into an area (distinction between humans/vehicles), line crossing (distinction between humans/vehicles), video tampering, scene change, face detection, face capture, target counting (humans/vehicles), motion detection, object abandoned/removed, heat map	Entry into/Exit from/Intrusion into an area (distinction between humans/vehicles), line crossing (distinction between humans/vehicles), video tampering, scene change, face detection, face capture, target counting (humans/vehicles), motion detection, object abandoned/removed, heat map	Entry into/Exit from/Intrusion into an area (distinction between humans/vehicles), line crossing (distinction between humans/vehicles), video tampering, scene change, face detection, face capture, target counting (humans/vehicles), motion detection, object abandoned/removed, heat map
ROI zones	8	8	8
Privacy zones	4	4	4
Integration protocols	ONVIF (Profile S, Profile G)	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)	Built-in micro SD card slot (supports up to 256 GB)	Built-in micro SD card slot (supports up to 256 GB)
Alarm Inputs/Outputs	/	/	1 input - 1 output
Audio Inputs/Outputs	1CH audio input	1CH audio input	1CH audio input; 1 audio output
IP rating	IP67	IP67	IP67
IK rating	IK10	IK10	IK10
Power supply	12 Vdc (<9.5W)	12 Vdc (<12W)	12 Vdc (<10W)
POE power supply	Standard IEEE802.3af	Standard IEEE802.3af	Standard IEEE802.3af
Operating temperature	-30°C - 60°C < 95% RH	-30°C - 60°C < 95% RH	-30°C - 60°C < 95% RH
Dimensions (mm)	217.7 x 80.5 x 80.5	217.7 x 80.5 x 80.5	279.5 x 100.3 x 88.9
Accessories	JBA-BA, CMA-BA, WMA-BA, PMA-A, AMA-A.	JBA-BA, CMA-BA, WMA-BA, PMA-A, AMA-A.	JBA-TBBA, CMA-KTBBA, WMA-KTBBA, PMA-A, AMA-A.

ADVANCE SERIES

IP Turret 8MP

	ULTRA STARLIGHT	ULTRA STARLIGHT	ULTRA STARLIGHT
	IPTCAMA08FB	IPTCAMA08ZB	IPKCAMA08ZB
Sensor	1 / 2.8" CMOS	1 / 2.8" CMOS	1 / 2.8" CMOS
Resolution	3840 x 2160 (8MP)	3840 x 2160 (8MP)	3840 x 2160 (8MP)
Lens	2.8 mm, Fixed lens	2.8-12 mm, Motorised lens with autofocus	2.8-12 mm, Motorised lens with autofocus
Min. Lighting	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)
Day/Night	Auto(ICR)/Day/Night/Timed	Auto(ICR)/Day/Night/Timed	Auto(ICR)/Day/Night/Timed
IR LEDs	30 m (Smart IR)	50 m (Smart IR)	50 m (Smart IR)
WDR	120 dB	120 dB	120 dB
Starlight	Ultra Starlight	Ultra Starlight	Ultra Starlight
White balancing	Auto/Manual/Indoor/Outdoor	Auto/Manual/Indoor/Outdoor	Auto/Manual/Indoor/Outdoor
BLC/DNR/HLC	BLC/3D DNR/HLC	BLC/3D DNR/HLC	BLC/3D DNR/HLC
Video Compression	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
Frame rate	20fps; HFR mode 60fps	20fps; HFR mode 60fps	20fps; HFR mode 60fps
Multi Streaming	3 Streaming	3 Streaming	3 Streaming
Digital effects	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)
Video Analysis	Entry into/Exit from/Intrusion into an area (distinction between humans/vehicles), line crossing (distinction between humans/vehicles), video tampering, scene change, face detection, face capture, target counting (humans/vehicles), motion detection, *object abandoned/removed, heat map	Entry into/Exit from/Intrusion into an area (distinction between humans/vehicles), line crossing (distinction between humans/vehicles), video tampering, scene change, face detection, face capture, target counting (humans/vehicles), motion detection, *object abandoned/removed, heat map	Entry into/Exit from/Intrusion into an area (distinction between humans/vehicles), line crossing (distinction between humans/vehicles), video tampering, scene change, face detection, face capture, target counting (humans/vehicles), motion detection, *object abandoned/removed, heat map
ROI zones	8	8	8
Privacy zones	4	4	4
Integration protocols	ONVIF (Profile S, Profile G)	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)	Built-in micro SD card slot (supports up to 256 GB)	Built-in micro SD card slot (supports up to 256 GB)
Alarm Inputs/Outputs	/	/	1 input - 1 output
Audio Inputs/Outputs	1CH built-in microphone; 1CH audio input	1CH built-in microphone; 1CH audio input	1CH audio input, 1 audio output
IP rating	IP67	IP67	IP67
IK rating	IK10	IK10	IK10
Power supply	12 Vdc (<6W)	12 Vdc (<9W)	12 Vdc (<9W)
POE power supply	Standard IEEE802.3af	Standard IEEE802.3af	Standard IEEE802.3af
Operating temperature	-30°C - 60°C < 95% RH	-30°C - 60°C < 95% RH	-30°C - 60°C < 95% RH
Dimensions (mm)	94.6 x 94.6 x 82.8	111.5 x 111.5 x 99.6	141 x 141 x 100.2
Accessories	JBA-TBBA, CMA-KTBBA, WMA-KTBBA, PMA-A, AMA-A.	JBA-TVA, CMA-TVA, WMA-TVA, PMA-A, AMA-A.	JBA-KA, CMA-KTBBA, WMA-KTBBA, PMA-A, AMA-A.

ADVANCE SERIES

IP Bullet 8MP

	ULTRA STARLIGHT	**ULTRA STARLIGHT**
	IPBCAMA08FB	**IPBCAMA08Z01B**
Sensor	1 / 2.8" CMOS	1 / 2.8" CMOS
Resolution	3840 x 2160 (8MP)	3840 x 2160 (8MP)
Lens	2.8 mm, Fixed lens	2.8-12 mm, Motorised lens with autofocus
Min. Lighting	0.01 (colour), 0 (black and white, IR LEDs ON)	0.01 (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)	70 m (Smart IR)
WDR	120 dB	120 dB
Starlight	Ultra Starlight	Ultra Starlight
White balancing	Auto/Manual/Indoor/Outdoor	Auto/Manual/Indoor/Outdoor
BLC/DNR/HLC	BLC/3D DNR/HLC	BLC/3D DNR/HLC
Video Compression	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
Frame rate	20fps; HFR mode 60fps	20fps; HFR mode 60fps
Multi Streaming	3 Streaming	3 Streaming
Digital effects	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)
DVA Video Analysis* Entry into/Exit from/Intrusion into an area (distinction between 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, face capture, target counting (humans/vehicles), motion detection, *object abandoned/removed, heat map	Entry into/Exit from/Intrusion into an area (distinction between humans/vehicles), line crossing (distinction between humans/vehicles), video tampering, scene change, face detection, face capture, target counting (humans/vehicles), motion detection, *object abandoned/removed, heat map
ROI zones	8	8
Privacy zones	4	4
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)	Built-in micro SD card slot (supports up to 256 GB)
Alarm Inputs/Outputs	/	1 input - 1 output
Audio Inputs/Outputs	1CH audio input	1CH audio input; 1 audio output
IP rating	IP67	IP67
IK rating	IK10	IK10
Power supply	12 Vdc (<9.5W)	12 Vdc (<10W)
POE power supply	Standard IEEE802.3af	Standard IEEE802.3af
Operating temperature	-30°C - 60°C < 95% RH	-30°C - 60°C < 95% RH
Dimensions (mm)	217.7 x 80.5 x 80.5	279.5 x 100.3 x 88.9
Accessories	JBA-BA, CMA-BA, WMA-BA, PMA-A, AMA-A.	JBA-TBBA, CMA-KTBBA, WMA-KTBBA, PMA-A, AMA-A.

ADVANCE SERIES

ColorUP

	ULTRA STARLIGHT	**ULTRA STARLIGHT**
	IPBCAMA04FCUB	**IPBCAMA04ZCUB**
Sensor	1 / 3" CMOS	1 / 3" CMOS
Resolution	2592 x 1520 (4MP)	2560 x 1440 (4MP)
Lens	2.8 mm, Fixed lens	2.8-12 mm, Motorised lens with autofocus
Min. Lighting	0.0005 (colour @F1.0) with LED light on	0.0005 (colour @F1.4) with LED light on
Day/Night	Auto(ICR)/Day/Night/Timed	Auto(ICR)/Day/Night/Timed
Dual Light function	/	Yes
White LED	30 m	30 m
IR LEDs	/	30 m (Smart IR)
WDR	120 dB	120 dB
White balancing	Auto/Manual/Indoor/Outdoor	Auto/Manual/Indoor/Outdoor
BLC/DNR/HLC	BLC/3D DNR/HLC	BLC/3D DNR/HLC
Video Compression	H.265 / H.264 / MJPEG	H.265 / H.264 / MJPEG
Frame rate	30fps	30fps
Multi Streaming	3 Streaming	3 Streaming
Digital effects	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
Video Analysis	Intrusion into an area (distinction between humans/vehicles), line crossing (distinction between humans/vehicles), video tampering, scene change, motion detection, object abandoned/removed	Intrusion into an area (distinction between humans/vehicles), line crossing (distinction between humans/vehicles), video tampering, scene change, motion detection, object abandoned/removed
ROI zones	8	8
Privacy zones	4	4
Integration protocols	ONVIF	ONVIF
Micro SD Card slot	Built-in micro SD card slot (supports up to 256 GB)	Built-in micro SD card slot (supports up to 256 GB)
Alarm Inputs/Outputs	/	/
Audio Inputs/Outputs	1 CH audio input, 1 (microphone) / -	1 CH audio input, 1 (microphone) / -
IP rating	IP67	IP67
IK rating	IK10	IK10
Power supply	12 Vdc (<10W)	12 Vdc (<10W)
POE power supply	Standard IEEE802.3af	Standard IEEE802.3af
Operating temperature	-30°C - 60°C < 95% RH	-30°C - 60°C < 95% RH
Dimensions (mm)	217.8 x 80.5 x 80.3	217.8 x 80.5 x 80.3
Accessories	JBA-BA, CMA-BA, WMA-BA, PMA-A, AMA-A.	JBA-BA, CMA-BA, WMA-BA, PMA-A, AMA-A.

ADVANCE SERIES

ColorUP

	ULTRA STARLIGHT	**ULTRA STARLIGHT**
	IPTCAMA04FCUB	**IPTCAMA04ZCUB**
Sensor	1 / 3" CMOS	1 / 3" CMOS
Resolution	2560x1440 (4MP)	2560x1440 (4MP)
Lens	2.8 mm, Fixed lens	2.8-12 mm, Motorised lens with autofocus
Min. Lighting	0.0005 (colour @F1.0) with LED light on	0.0005 (colour @F1.4) with LED light on
Day/Night	Auto(ICR)/Day/Night/Timed	Auto(ICR)/Day/Night/Timed
Dual Light function	/	Yes
White LED	20 m	430 m
IR LEDs	/	30 m (Smart IR)
WDR	120 dB	120 dB
White balancing	Auto/Manual/Indoor/Outdoor	Auto/Manual/Indoor/Outdoor
BLC/DNR/HLC	BLC/3D DNR/HLC	BLC/3D DNR/HLC
Video Compression	H.265 / H.264 / MJPEG	H.265 / H.264 / MJPEG
Frame rate	30fps	30fps
Multi Streaming	3 Streaming	3 Streaming
Digital effects	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
Video Analysis	Intrusion into an area (distinction between humans/vehicles), line crossing (distinction between humans/vehicles), video tampering, scene change, motion detection, object abandoned/removed	Intrusion into an area (distinction between humans/vehicles), line crossing (distinction between humans/vehicles), video tampering, scene change, motion detection, object abandoned/removed
ROI zones	8	8
Privacy zones	4	4
Integration protocols	Onvif Protocol G,S,T	Onvif Protocol G,S,T
Micro SD Card slot	Built-in micro SD card slot (supports up to 256 GB)	Built-in micro SD card slot (supports up to 256 GB)
Alarm Inputs/Outputs	/	/
Audio Inputs/Outputs	1 CH audio input, 1 (microphone) / -	1 CH audio input, 1 (microphone) / -
IP rating	IP67	IP67
IK rating	IK10	IK10
Power supply	12 Vdc (<10W)	12 Vdc (<10W)
POE power supply	Standard IEEE802.3af	Standard IEEE802.3af
Operating temperature	-30°C - 60°C < 95% RH	-30°C - 60°C < 95% RH
Dimensions (mm)	82.8 x 94.6 x 94.6	99.6 x 111.6 x 111.6
Accessories	JBA-BA, CMA-BA, WMA-BA, PMA-A, AMA-A	JBA-TBBA, CMA-KTBBA, WMA-KTBBA, PMA-A, AMA-A.

ADVANCE SERIES

Perimeter protection

	ULTRA STARLIGHT	**ULTRA STARLIGHT**
	IPTCAMA05Z02A	**IPBCAMA05Z02A**
Sensor	1 / 2.7" CMOS	1 / 2.7" CMOS
Resolution	2592 x 1944 (5MP)	2592 x 1944 (5MP)
Lens	2.8-12 mm, Motorised lens with autofocus	2.8-12 mm, Motorised lens with autofocus
Min. Lighting	0.008 (colour), 0 (black and white, IR LEDs ON)	0.008 (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)	50 m (Smart IR)
Deterrent LED	YES	YES
WDR	WDR, 120dB	WDR, 120dB
Starlight	Ultra starlight	Ultra starlight
White balancing	Auto/Manual/Indoor/Outdoor	Auto/Manual/Indoor/Outdoor
BLC/DNR/HLC	BLC/3D DNR/HLC	BLC/3D DNR/HLC
Video Compression	"Smart H265 / H.265+ / H.265 / Smart H264 / H.264+ / H.264 / MJPEG"	"Smart H265 / H.265+ / H.265 / Smart H264 / H.264+ / H.264 / MJPEG"
Frame rate	30fps	20fps
Multi Streaming	3 Streaming	3 Streaming
Digital effects	"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)"
DVA Video Analysis	"Entry into/Exit from/Intrusion into an area (distinction between humans/vehicles), Line crossing (distinction between humans/vehicles), scene change, motion detection"	"Entry into/Exit from/Intrusion into an area (distinction between humans/vehicles), Line crossing (distinction between humans/vehicles), scene change, motion detection"
ROI zones	8	8
Privacy zones	4	4
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)	Built-in micro SD card slot (supports up to 256 GB)
Alarm Inputs/Outputs	1 input - 1 output	1 input - 1 output
Audio Inputs/Outputs	"1CH audio input; 1CH audio output; 1CH built-in loudspeaker, 1CH built-in microphone"	"1CH audio input; 1CH audio output; 1CH built-in loudspeaker"
IP rating	IP67	IP67
IK rating	IK10	IK10
Power supply (Vdc-Watt)	12, < 11W	12, < 11.5W
POE power supply	Standard IEEE802.3af	Standard IEEE802.3af
Operating temperature	-30°C - 60°C < 95% RH	-30°C - 60°C < 95% RH
Dimensions (mm)	99.6 x 99.6 x 111.5	80.5 x 80.5 x 217.7
Accessories	JBA-TBBA, CMA-KTBBA, WMA-KTBBA, PMA-A, AMA-A.	JBA-BA, CMA-BA, WMA-BA, PMA-A, AMA-A.

ADVANCE SERIES

Plate reading

ADVANCE SERIES

Fisheye

ULTRA STARLIGHT

IPLPRA02ZA

Sensor	1 / 2.8" CMOS
Resolution	1920 x 1080 (2MP)
Lens	7-22 mm, Motorised lens with autofocus
Min. Lighting	0.0026 (colour), 0 (black and white, IR LEDs ON)
Day/Night	Auto(ICR)/Day/Night/Timed
IR LEDs	50 m (Smart IR)
WDR	WDR, 120dB
Starlight	Ultra starlight
White balancing	Auto/Manual/Indoor/Outdoor
BLC/DNR/HLC	BLC/3D DNR/HLC
Video Compression	"Smart H265 / H.265+ / H.265 / Smart H264 / H.264+ / H.264 / MJPEG"
Frame rate	"30fps; HFR mode 60fps"
Multi Streaming	3 Streaming
Digital effects	"Corridor mode (90°/180°/270° rotation), defog, mirror mode (horizontal, vertical, 180° rotation)"
Video Analysis	Scene change, ANPR, motion detection
Max speed	70 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)
Micro SD Card slot	Built-in micro SD card slot (supports up to 128 GB)
Alarm Inputs/Outputs	1 input - 1 output
Audio Inputs/Outputs	1CH audio input; 1CH audio output
IP rating	IP67
IK rating	IK10
Power supply	12 Vdc (<11W)
POE power supply	Standard IEEE802.3af
Operating temperature	-30°C - 60°C < 95% RH
Dimensions (mm)	99.6 x 99.6 x 111.5
Accessories	JBA-TBBA, CMA-KTBBA, WMA-KTBBA, PMA-A, AMA-A.

IPFCAMA06FA

Sensor	1 / 2.9" 6MP CMOS
Resolution	2160 x 2160 (6MP)
Lens	1.07 mm, Fixed lens
Min. Lighting	0.068 (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	/
White balancing	Auto/Manual/Indoor/Outdoor
BLC/DNR/HLC	BLC/3D DNR/HLC
Video Compression	H.265 / H.264 / MJPEG
Frame rate	30fps
Multi Streaming	3 Streaming
Digital effects	Corridor mode (90°/180°/270° rotation), defog, mirror mode (horizontal, vertical, 180° rotation)
Video Analysis	Motion detection
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 input - 1 output
Audio Inputs/Outputs	1CH audio input; 1CH audio output
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)	39 x 130 x 130
Accessories	JBA-FA, CMA-FA, WMA-FA, PMA-A, AMA-A.
Operating temperature	-30°C - 60°C < 95% RH
Dimensions (mm)	99.6 x 99.6 x 111.5
Accessories	JBA-TBBA, CMA-KTBBA, WMA-KTBBA, PMA-A, AMA-A.

ADVANCE SERIES

Multi-sensor

ADVANCE SERIES

WiFi

ULTRA STARLIGHT

IPSCAMA08F04A	
Sensor	4x / 2.8" Progressive Scan CMOS
Resolution	4096 x 1800 (8MP)
Lens	3.3 mm, Fixed lens
Min. Lighting	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
BLC/DNR/HLC	BLC/3D DNR/HLC
Video Compression	H.265 / H.264 / MJPEG
Frame rate	30fps
Multi Streaming	1 Streaming
Digital effects	Corridor mode (90°/180°/270° rotation), defog, mirror mode (horizontal, vertical, 180° rotation)
Video Analysis	Entry into/Exit from/Intrusion into an area (distinction between humans/vehicles), line crossing (distinction between humans/vehicles), video tampering, scene change, face detection, face capture, target counting (humans/vehicles), motion detection, object abandoned/removed, 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 input - 1 output
Audio Inputs/Outputs	1CH audio input; 1CH audio output
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.

	WICAMA02FA	WIBCAMA04FA
Sensor	1 / 2.7" CMOS	1 / 2.7" CMOS
Resolution	1920 x 1080 (2MP)	2688 x 1520 (4MP)
Lens	2.8 mm, Fixed lens	2.8 mm, Fixed lens
Min. Lighting	0.03 (colour), 0 (black and white, IR LEDs ON)	0.01 (colour), 0 (black and white, IR LEDs ON)
IR LEDs	10 m (Smart IR)	20 m (Smart IR)
Day/Night	/	Auto(ICR)/Day/Night/Timed
WDR	D-WDR 100dB	D-WDR 100dB
White balancing	Auto/Manual/Indoor/Outdoor	Auto/Manual/Indoor/Outdoor
BLC/DNR/HLC	BLC/3D DNR/ HLC	BLC/3D DNR/ HLC
Video Compression	H.265 / H.264 / MJPEG	H.265 / H.264
Frame rate	30fps	25fps
Multi Streaming	3 Streaming	3 Streaming
Digital effects	Corridor mode (90°/180°/270° rotation), defog, mirror mode (horizontal, vertical, 180° rotation)	Defog, ROI zones
Video analysis	Line crossing, scene change, intrusion, motion detection	Line crossing, entry into an area, Scene change detection, Object abandoned / removed detection, Line cross detection
PIR range	Horizontal angle: 100°, Range 7 m	/
ROI zones	8	/
Privacy zones	4	/
Integration protocols	ONVIF (Profile S, Profile G)	ONVIF (Profile S, Profile G)
Wireless standards	IEEE802.11b/g/n	IEEE802.11b/g/n
Frequency range	2.4 GHz - 2.4835 GHz	2.4 GHz - 2.4835 GHz
Safety	WEP, WPA	WEP, WPA, WPA2
Wireless range	50 m	50 m
Micro SD Card slot	Built-in micro SD card slot (supports up to 128 GB)	Built-in micro SD card slot (supports up to 128 GB)
Alarm Inputs/Outputs	1 input - 1 output	/
Audio Inputs/Outputs	1CH built-in microphone; 1CH built-in loudspeaker	/
IP rating	Indoor use	IP67
IK rating	/	IK10
Power supply	12 Vdc (<4.5W)	12 Vdc
POE power supply	Standard IEEE802.3af	Standard IEEE802.3af
Operating temperature	-10°C - 45°C < 95% RH	-30°C - 60°C < 95% RH
Dimensions (mm)	130 x 71.7 x 71.7	167.6 x 74.7 x 74.7
Accessories	/	JBA-BA, CMA-BA, WMA-BA, PMA-A, AMA-A.

ADVANCE SERIES

5-50 mm

ADVANCE SERIES

PTZ

ULTRA STARLIGHT

IPBCAMA04Z550B

Sensor	1 / 3" CMOS
Resolution	2592 x 1520 (4MP)
Lens	5-50 mm Motorised lens with autofocus
Min. Lighting	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
BLC/DNR/HLC	BLC/3D DNR/HLC
Video Compression	Smart H.265 / H.265+ / H.265 / Smart H.264 / H.264+ / H.264 /MJPEG
Frame rate	30fps; HFR mode 60fps
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	Entry into/Exit from/Intrusion into an area (distinction between humans/vehicles), line crossing (distinction between humans/vehicles), video tampering, scene change, face detection, face capture, target counting (humans/vehicles), motion detection, *object abandoned/removed, 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 input - 1 output
Audio Inputs/Outputs	1CH audio input; 1CH audio output
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.

	ULTRA STARLIGHT	ULTRA STARLIGHT
	IPPTZA02Z25A	**IPPTZA04Z04A**
Sensor	1/2.8" CMOS	1/2.7" CMOS
Resolution	1920 x 1080 (2MP)	2560 x 1440 (4MP)
Zoom	25X optical zoom	4X optical zoom
Min. Lighting	0.005 (colour), 0 (black and white, IR LEDs ON)	0.01 (colour), 0 (black and white, IR LEDs ON)
Day/Night	Auto(ICR)/Day/Night/Timed	Auto(ICR)/Day/Night/Timed
IR LEDs	150 m (Smart IR)	50 m (Smart IR)
Deterrent LED	/	YES
WDR	WDR, 120dB	WDR, 120dB
Starlight	Ultra starlight	/
White balancing	Auto/Manual/ATW (Auto-tracking WB)/Indoor/Outdoor/Fluorescent Lamp/Sodium Lamp	Auto/Manual/Indoor/Outdoor
BLC/DNR/HLC	BLC/3D DNR/HLC	BLC/3D DNR/HLC
Video Compression	H.265 / H.264 / MJPEG	Smart H.265+/H.265/H.264+/H.264/MJPEG
Frame rate	25fps	30fps
Multi Streaming	3 Streaming	3 Streaming
Digital effects	Defog, mirror mode (horizontal, vertical, 180° rotation)	Defog, mirror mode (horizontal, vertical, 180° rotation)
Video Analysis	Entry into/Exit from/Intrusion into an area (distinction between humans/vehicles), line crossing (distinction between humans/vehicles), video tampering, scene change, face detection, face capture, target counting (humans/vehicles), motion detection, object abandoned/removed, auto tracking (human/vehicle)	Entry into/Exit from/Intrusion into an area (distinction between humans/vehicles), line crossing (distinction between humans/vehicles), video tampering, scene change, face detection, face capture, target counting (humans/vehicles), motion detection, object abandoned/removed, auto tracking (human/vehicle)
Privacy zones	4	8
Pan	360° endless, Speed Configurable, from 0.5°/s to 80°/s; Preset speed: 80°/s	360° endless, Speed Configurable, from 0.5°/s to 150°/s; Preset speed: 150°/s
Tilt	From -5° to 90° (auto-flip), Speed Configurable, from 0.5°/s to 80°/s; Preset speed: 80°/s	From -5° to 93° (auto-flip), Speed Configurable, from 0.5°/s to 70°/s; Preset speed: 120°/s
Preset/Cruise/Trace	360 Preset/ 8 cruises, up to 16 presets for each cruises/ 4 tracks, record time over 3 minutes for each trace	360 Preset/ 8 cruises, up to 16 presets for each cruise/ 4 tracks, record time over 3 minutes for each trace
Schedule Task	Preset/Cruise/Trace/Random Scan/Boundary Scanning/Dome/Reboot	Preset/Cruise/Trace/Random Scan/Boundary Scanning/Dome Reboot
Integration protocols	ONVIF (Profile S, Profile G)	ONVIF (Profile S, Profile G)
Micro SD Card slot	Micro SD card slot (supports up to 256 GB)	Built-in micro SD card slot (supports up to 256 GB)
Alarm Inputs/Outputs	/	1 input / -
Audio Inputs/Outputs	/	1CH audio input; 1CH audio output; 1CH built-in loudspeaker, 1CH built-in microphone
IP rating	IP66	IP66
IK rating	IK10	IK10
Power supply	12 Vdc (<20W)	12 Vdc (<25W)
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)	268 x 173 x 173	162 x 130 x 130
Accessories	CMA-PTZA, PMA-A, AMA-A, AMAJB-A, PMAJB-A	JBA-FA, CMA-FA, WMA-FA, PMA-A, AMA-A.

ADVANCE SERIES

PTZ

ULTRA STARLIGHT

IPPTZA04Z40B

Sensor	1/2.8" CMOS
Resolution	2560 x 1440 (4MP)
Zoom	40X optical zoom
Min. Lighting	0.005 (colour), 0 (black and white, IR LEDs ON)
Day/Night	Auto(ICR)/Day/Night/Timed
IR LEDs	350 m (Smart IR)
Deterrent LED	/
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	30fps
Multi Streaming	3 Streaming
Digital effects	Defog, mirror mode (horizontal, vertical, 180° rotation)
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, auto tracking (human/vehicle)
Privacy zones	4
Pan	360° endless, Speed Configurable, from 0.5°/s to 150°/s; Preset speed: 150°/s
Tilt	From -5° to 93° (auto-flip), Speed Configurable, from 0.5°/s to 70°/s; Preset speed: 120°/s
Preset/Cruise/Trace	360 Preset/ 8 cruises, up to 16 presets for each cruises/ 4 tracks, record time over 3 minutes for each trace
Schedule Task	Preset/Cruise/Trace/Random Scan/Boundary Scanning/Dome/Reboot
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 input - 1 output
Audio Inputs/Outputs	1CH audio input; 1CH audio output
IP rating	IP67
IK rating	IK10
Power supply	24 Vdc (<30W)
POE power supply	Standard IEEE 802.3at (class 4)
Operating temperature	-30°C - 60°C < 95% RH
Dimensions (mm)	280 x 200 x 200
Accessories	JBA-FA, CMA-FA, WMA-FA, PMA-A, AMA-A.

ULTRA STARLIGHT

IPPTZA08Z37A

Sensor	1/2.5" CMOS
Resolution	3840 x 2160 (8MP)
Zoom	37X optical zoom
Min. Lighting	0.01 (colour), 0 (black and white, IR LEDs ON)
Day/Night	Auto(ICR)/Day/Night/Timed
IR LEDs	300 m (Smart IR)
Deterrent LED	/
WDR	D-WDR, 100dB
Starlight	Ultra starlight
White balancing	Auto/Manual/Indoor/Outdoor
BLC/DNR/HLC	BLC/3D DNR/HLC
Video Compression	H.265 / H.264 / MJPEG
Frame rate	30fps
Multi Streaming	3 Streaming
Digital effects	Defog, mirror mode (horizontal, vertical, 180° rotation)
Video Analysis	Entry into/Exit from/Intrusion into an area (distinction between humans/vehicles), line crossing (distinction between humans/vehicles), video tampering, scene change, face detection, face capture, target counting (humans/vehicles), motion detection, object abandoned/removed, auto tracking (human/vehicle)
Privacy zones	8
Pan	360° endless, Speed Configurable, from 0.5°/s to 150°/s; Preset speed: 150°/s
Tilt	From -5° to 93° (auto-flip), Speed Configurable, from 0.5°/s to 70°/s; Preset speed: 120°/s
Preset/Cruise/Trace	360 Preset/ 8 cruises, up to 16 presets for each cruise/ 4 tracks, record time over 3 minutes for each trace
Schedule Task	Preset/Cruise/Trace/Random Scan/Boundary Scanning/Dome Reboot
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 input - 1 output
Audio Inputs/Outputs	1CH audio input; 1CH audio output
IP rating	IP66
IK rating	IK10
Power supply	24 Vdc (<30W)
POE power supply	Standard IEEE 802.3at (class 4)
Operating temperature	-30°C - 60°C < 95% RH
Dimensions (mm)	328 x 208.4 x 208.4
Accessories	CMA-PTZA, AMAJB-A, PMAJB-A

ADVANCE SERIES

NVR / XVR

MAIN FUNCTIONS

8MP

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

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

The E-Sata port can be used to connect, if necessary, 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.

ADVANCE SERIES

NVR POE
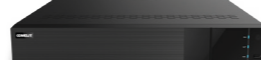
	IPNVR004A08PB IPNVR004A08PBSL (no HDD)	IPNVR008A08PB IPNVR008A08PBSL (no HDD)	IPNVR016A08PB IPNVR016A08PBSL (no HDD)
IP cameras	4ch	16ch	16ch
Max. Recording resolution	4CH@8MP/6MP/5MP/4MP/3MP/1080P/960P/720P/960H/D1/CIF	16CH@8MP/6MP/5MP/4MP/3MP/1080P/960P/720P/960H/D1/CIF	16CH@8MP/6MP/5MP/4MP/3MP/1080P/960P/720P/960H/D1/CIF
POE ports	4 x Ethernet (10/100/1000Mbps) PoE (IEEE802.3af), up to 250 m (Long Range ON)	8 x Ethernet (10/100/1000Mbps) PoE (IEEE802.3af), up to 250 m (Long Range ON)	16 x Ethernet (10/100/1000Mbps) PoE (IEEE802.3af), up to 250 m (Long Range ON)
Video outputs	1 (VGA) - 1920x1080; 1280x1024; 1024x768; 1 (HDMI) - 4K (3840x2160); 1920x1080; 1280x1024; 1024x768	1 (VGA) - 1920x1080; 1280x1024; 1024x768; 1 (HDMI) - 4K (3840x2160); 1920x1080; 1280x1024; 1024x768	1 (VGA) - 1920x1080; 1280x1024; 1024x768; 1 (HDMI) - 4K (3840x2160); 1920x1080; 1280x1024; 1024x768
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	H264-H265	H264-H265	H264-H265
Audio Compression	G.711 (U/A)	G.711 (U/A)	G.711 (U/A)
Recording Rate	Main stream: 8MP/6MP/5MP/4MP/3MP/1080P/960P/720P/960H/D1/CIF (1-25/30fps) Sub stream: 960H 1-25/30fps);D1/CIF/QCIF(1-25/30fps)"	Main stream: 8MP/6MP/5MP/4MP/3MP/1080P/960P/720P/960H/D1/ CIF(1-25/30fps) Sub stream: 960H(1-25/30fps);D1/CIF/QCIF(1-25/30fps)"	Main stream: 8MP/6MP/5MP/4MP/3MP/1080P/960P/720P/960H/D1/ CIF(1-25/30fps) Sub stream: 960H(1-25/30fps);D1/CIF/QCIF(1-25/30fps)"
Synchronised playback	1CH 4K, 4CH 1080P	1CH 4K, 4CH 1080P, 9CH D1, 16CH D1	1CH 4K, 4CH 1080P, 9CH 720P, 16CH 720P
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 8TB)	2 SATA, (Maximum Hard Disk capacity 8TB)	4 SATA, (Maximum Hard Disk capacity 8TB)
HDD included	1TB	1TB	2TB
eSATA	/	/	/
Bandwidth	40Mbps	160Mbps	160Mbps
Integration protocols	ONVIF (Profile S, Profile G)	ONVIF (Profile S, Profile G)	ONVIF (Profile S, Profile G)
Max simultaneous connections	14	38	38
Alarm Inputs/Outputs	/	8/4	8/4
Network interface	RJ 45 x 1 (10/100/1000Mbps)	RJ 45 x 1 (10/100/1000Mbps)	RJ 45 x 1 (10/100/1000Mbps)
Serial ports	RS-485 / 2 x USB 2.0	RS-485 / 1x USB 2.0 / 1x USB 3.0	RS-485 / 1x USB 2.0 / 1x USB 3.0
Power supply	DC 48V/1.25A	DC 48V/2.5A	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	52 x 300 x 248	45 x 380 x 268	70 x 440 x 390

ADVANCE SERIES

NVRs

	IPNVR032A08NBSL	IPNVR064A08NBSL	IPNVR128A08NBSL
IP cameras	32ch	64ch	128ch
Max. Recording resolution	32Ch@8MP/6MP/5MP/4MP/3MP/1080P/960P/720P/960H/D1/CIF	64Ch@8MP/6MP/5MP/4MP/3MP/1080P/960P/720P/960H/D1/CIF	128Ch@8MP/6MP/5MP/4MP/3MP/1080P/960P/720P/960H/D1/CIF
POE ports	/	/	/
Video outputs	HDMI1: 4K x 2K / 1920 x 1080 / 1280 x 1024 / 1024x 768 HDMI2: 1920 x 1080 / 1280 x 1024 / 1024x 768 VGA: 1920 x 1080 / 1280 x 1024 / 1024x 768	HDMI1: 4K x 2K / 1920 x 1080 / 1280 x 1024 / 1024x 768 HDMI2: 1920 x 1080 / 1280 x 1024 / 1024x 768 VGA: 1920 x 1080 / 1280 x 1024 / 1024x 768	HDMI1: 4K x 2K / 1920 x 1080 / 1280 x 1024 / 1024x 768 HDMI2: 1920 x 1080 / 1280 x 1024 / 1024x 768 VGA: 1920 x 1080 / 1280 x 1024 / 1024x 768
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	H264-H265	H264-H265	H264-H265
Audio Compression	G.711 (U/A)	G.711 (U/A)	G.711 (U/A)
Recording Rate	Main stream: 8MP/6MP/5MP/4MP/3MP/1080P/960P/720P/960H/D1/CIF (1-25/30fps) Sub stream:960H 1-25/30fps);D1/CIF/QCIF(1-25/30fps)	Main stream: 8MP/6MP/5MP/4MP/3MP/1080P/960P/720P/960H/D1/CIF (1-25/30fps) Sub stream:960H 1-25/30fps);D1/CIF/QCIF(1-25/30fps)	Main stream: 8MP/6MP/5MP/4MP/3MP/1080P/960P/720P/960H/D1/CIF (1-25/30fps) Sub stream:960H 1-25/30fps);D1/CIF/QCIF(1-25/30fps)"
Synchronised playback	1CH 4K, 4CH 5MP, 9CH 720P, 16CH D1	1CH@4K, 4CH@5MP, 9CH@720P, 16CH@D1	1CH 4K, 4CH 5MP, 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	8 SATA, (Maximum Hard Disk capacity 8TB) Supports RAID function 1,5,6,10	16 SATA, (Maximum Hard Disk capacity 8TB) Supports RAID function 0,1,5,6,10	16 SATA, (Maximum Hard Disk capacity 8TB) Supports RAID function 0,1,5,6,10
HDD included	/	/	/
eSATA	E-SATA x 2	E-SATA x 1	E-SATA x 1
Bandwidth	256Mbps	320Mbps	384Mbps
Integration protocols	ONVIF (Profile S, Profile G)	ONVIF (Profile S, Profile G)	ONVIF (Profile S, Profile G)
Max simultaneous connections	70	102	166
Alarm Inputs/Outputs	8/4	8/4	8/4
Network interface	RJ45 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 USB3.0	RS-485 / 2 x USB2.0 / 1 x USB3.0	RS-485 / 2 x USB2.0 / 1 x USB3.0
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

ADVANCE SERIES

NDAA NVRs

NDAA COMPLIANT

	NIPNVR008A12PB NIPNVR008A12PB (no HDD)	NIPNVR016A12PB NIPNVR016A12PB (no HDD)	NIPNVR032A12NBSL
IP cameras	8ch	16ch	32ch
Max. Recording resolution	8CH@12MP/8MP/6MP/5MP/4MP/3MP/1080P/1280 1024/960P/720P/960H/D1/CIF	16CH@12MP / 8MP / 6MP / 5MP / 4MP / 3MP / 1080P / 1280x1024 / 960P / 720P / 960H / D1/CIF	32Ch@12MP / 8MP / 6MP / 5MP / 4MP / 3MP / 1080P / 1280x1024 / 960P / 720P / 960H / D1/CIF"
POE ports	8 x Ethernet (10/100/1000Mbps) PoE (IEEE802.3af), up to 250 m (Long Range ON)	16 x Ethernet (10/100/1000Mbps) PoE (IEEE802.3af), up to 250 m (Long Range ON)	/
Video outputs	1 (VGA) - 1920x1080; 1280x1024; 1024*768; 1 (HDMI) - 4K (3840x2160); 1920x1080;1 280x1024; 1024*768	1 (VGA) - 1920x1080;1280x1024;1024*768; 1 (HDMI) - 4K (3840x2160); 1920x1080; 1280x1024; 1024x768	HDMI1: 4K x 2K / 1920 x 1080 / 1280 x 1024 / 1024x 768 HDMI2: 1920 x 1080 / 1280 x 1024 / 1024x 768 VGA: 1920 x 1080 / 1280 x 1024 / 1024x 768
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: 12MP / 8MP / 6MP / 5MP / 4MP / 3MP / 1080P / 1280x1024 / 960P / 720P / 960H /D1 / CIF (1-20/30fps) Sub stream: 1080P/1280x1024/960P/720P/960H/D1/CIF (1-25/30fps)	Main stream: 12MP / 8MP / 6MP / 5MP / 4MP / 3MP / 1080P / 1280x1024 / 960P / 720P / 960H /D1 / CIF (1-20/30fps) Sub stream: 1080P/1280x1024/960P/720P/960H/D1/CIF (1-25/30fps)	Main stream: 12MP / 8MP / 6MP / 5MP / 4MP / 3MP / 1080P / 1280x1024 / 960P / 720P / 960H /D1 / CIF (1-20/30fps) Sub stream: 1080P/1280x1024/960P/720P/960H/D1/CIF (1-25/30fps)
Synchronised playback	1CH 12MP / 4CH 1080P / 8CH D1	1CH 12MP / 4CH 1080P / 16CH D1	1CH 12MP / 4CH 1080P / 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)	4 SATA, (Maximum Hard Disk capacity 10TB)	8 SATA, (Maximum Hard Disk capacity 10TB) Supports RAID function 1,5,6,10
HDD included	1TB	2TB	/
eSATA	/	E-SATA x 1	E-SATA x 1
Bandwidth	80Mbps	160Mbps	160Mbps
Integration protocols	ONVIF (Profile S, Profile G)	ONVIF (Profile S, Profile G)	ONVIF (Profile S, Profile G)
Max simultaneous connections	64	64	128
Alarm Inputs/Outputs	8/4	16/4	16/4
Network interface	RJ 45 x 1 (10/100/1000Mbps)	RJ 45 x 2 (10/100/1000Mbps)	RJ 45 x 2 (10/100/1000Mbps)
Serial ports	RS-485 / 2x USB 2.0 / 1x USB 3.0	RS-485 / 2x USB 2.0 / 1x USB 3.0	RS-485 / 2 x USB2.0 / 1 x USB3.0
Power supply	DC 48V/2.5A	100x240V, 50x60 Hz	100x240V, 50x60 Hz
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	70 x 390 x 440	90 x 436 x 445

ADVANCE SERIES

XVRs

	AHDVR004A08B AHDVR004A08BSL (no HDD)	AHDVR008A08B AHDVR008A08B (no HDD)	AHDVR016A08B AHDVR016A08B (no HDD)
Analogue inputs	4 CH	8 CH	16 CH
IP Cameras	2CH; 8MP@25/30fps (up to 6CH)	8CH; 8MP@25/30fps (up to 16CH)	8CH; 8MP@25/30fps (up to 16CH)
Recording resolution	8MP/5MP/4MP/3MP/1080P/720P/WD1	8MP/5MP/4MP/3MP/1080P/720P/WD1	8MP/5MP/4MP/3MP/1080P/720P/WD1
Analogue technologies supported	AHD/TVI/CVI/CVBS	AHD/TVI/CVI/CVBS	AHD/TVI/CVI/CVBS
Hybrid mode	Analogue+Network: 4CH Analogue (MAX 8MP) +2 IPC (MAX 8MP)	Analogue+Network: 8CH Analogue (MAX 8MP) +8 IPC (MAX 8MP)	Analogue+Network: 16CH Analogue (MAX 8MP) +8 IPC (MAX 8MP)
Video outputs	HDMI x 1 : 3840 x 2160 / 1920 x 1080 / 1280 x 1024 / 1024 x 768 VGA x 1 : 1920 x 1080 / 1280 x 1024 / 1024 x 768 SPOT CVBS x 1	HDMI x 1 : 3840 x 2160 / 1920 x 1080 / 1280 x 1024 / 1024 x 768 VGA x 1 : 1920 x 1080 / 1280 x 1024 / 1024 x 768 SPOT CVBS x 1	HDMI x 1 : 3840 x 2160 / 1920 x 1080 / 1280 x 1024 / 1024 x 768 VGA x 1 : 1920 x 1080 / 1280 x 1024 / 1024 x 768 SPOT CVBS x 1
Audio Inputs/Outputs	4CH input; 1CH output, RCA	8CH input; 1CH output, RCA	8CH input; 1CH output, RCA
Recording type	Dual Streaming	Dual Streaming	Dual Streaming
Video Compression	H.264/H.265	H.264/H.265	H.264/H.265
Recording Rate	Analogue CH: 4K@7fps (only available on CH1) 5MP/4MP/3MP@12fps 1080P/720P/WD1/D1@25fps IP cameras: 8MP/5MP/4MP/3MP/2MP@25fps	Analogue CH: 8MP@7fps 5MP/4MP/3MP@12fps 1080P/720P/WD1/D1@25fps IP cameras: 8MP/5MP/4MP/3MP/2MP@25fps	Analogue CH: 8MP@7fps 5MP/4MP/3MP@12fps 1080P/720P/WD1/D1@25fps IP cameras: 8MP/5MP/4MP/3MP/2MP@25fps
Synchronised playback	1CH 8MP/5MP/4MP/3MP/2MP, 4CH sub stream	4CH 4K/5MP/4MP/3MP/2MP, 8CH sub stream	4CH 4K/5MP/4MP/3MP/2MP, 8CH sub stream
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 8TB)	2 SATA, (Maximum Hard Disk capacity 8TB)	2 SATA, (Maximum Hard Disk capacity 8TB)
HDD included	1TB	1TB	1TB
eSATA	E-SATA x 1	E-SATA x 1	E-SATA x 1
Bandwidth	40Mbps	64Mbps	64Mbps
Max simultaneous connections	5	6	10
Alarm Inputs/Outputs	4/1	8/2	16/4
Network interface	RJ45 x 1 (10 / 100 / 1000 Mbps)	RJ45 x 1 (10 / 100 / 1000 Mbps)	RJ45 x 1 (10 / 100 / 1000 Mbps)
Serial ports	RS-485 / 2x USB 2.0	RS-485 / 1x USB 2.0 / 1x USB 3.0	RS-485 / 1x USB 2.0 / 1x USB 3.0
Power supply	12VDC	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	52 x 300 x 248	45 x 380 x 268	70 x 440 x 390

ADVANCE SERIES

Thermal technology

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**

ADVANCE SERIES

Thermal cameras

	IPTHBCAMA03A	IPTHBCAMA07A
Camera sensor	Optical: 1/2.7" CMOS; Thermal: 8-14 Qm uncooled vanadium oxide floor detector	Optical: 1/2.7" CMOS; Thermal: 8-14 Qm uncooled vanadium oxide floor detector
Camera lens	Optical: 4 mm; Thermal: 3.2 mm	Optical: 8 mm; Thermal: 7 mm
Horizontal field of vision (°)	Optical: 81°; Thermal: 56°	Optical: 38°; Thermal: 24.8°
Vertical field of vision (°)	Optical: 56.7°; Thermal: 42.2°	Optical: 27.5°; Thermal: 18.7°
Electronic shutter (s)	1/3 s - 1 / 100000 s	1/3 s - 1 / 100000 s
Sensitivity (lux)	0.03 (colour), 0 (black and white, IR LEDs ON)	0.03 (colour), 0 (black and white, IR LEDs ON)
IR filter	Mechanical	Mechanical
Video transmission	Optical triple streaming + thermal streaming	Optical triple streaming + thermal streaming
Video resolution	Optical: 2592x1944 (5MP); Thermal: 256x192	Optical: 2592x1944 (5MP); Thermal: 256x192
Video Compression	H.265, H.265+, H.264, H.264+, MJPEG	H.265, H.265+, H.264, H.264+, MJPEG
Frame rate	Optical: 30fps; Thermal: 30fps	Optical: 30fps; Thermal: 30fps
Protocols supported	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
Thermal Video Analysis	Line crossing, intrusion area, fire detection, temperature detection	Line crossing, intrusion area, fire detection, temperature detection"
Optical Video Analysis	Video Exception, Line crossing, Region entrance, Region exit, Target count, Region intrusion, Face detection	Video Exception, Line crossing, Region entrance, Region exit, Target count, Region intrusion, Face detection
Detectable temperature range	-20 °C-150 °C	-20 °C-150 °C
Back light compensation (BLC)	BLC, HLC	BLC, HLC
Digital effects	Defog, ROI zones	Defog, ROI zones
Wide Dynamic Range (WDR)	DWDR	DWDR
Micro SD Card slot	Micro SD card slot (supports up to 256 GB)	Built-in micro SD card slot (supports up to 256 GB)
POE power supply	Standard IEEE 802.3af (class 0)	Standard IEEE 802.3af (class 0)
IP rating	IP67	IP67
Signals	Led flash and Speaker	Led flash and Speaker
Alarm inputs/outputs	1/1	1/1
Power supply voltage	12VDC	12VDC
Type of power supply	External power supply, PoE	External power supply, PoE
Accessories	JBA-BA, CMA-BA, WMA-BA, PMA-A, AMA-A.	JBA-BA, CMA-BA, WMA-BA, PMA-A, AMA-A.

	IPTHTCAMA03A	IPTHTCAMA07A
Camera sensor	Optical: 1/2.7" CMOS; Thermal: 8-14 Qm uncooled vanadium oxide floor detector	Optical: 1/2.7" CMOS; Thermal: 8-14 Qm uncooled vanadium oxide floor detector
Camera lens	Optical: 4 mm; Thermal: 3.2 mm	Optical: 8 mm; Thermal: 7 mm
Horizontal field of vision (°)	Optical: 81°; Thermal: 56°	Optical: 38°; Thermal: 24.8°
Vertical field of vision (°)	Optical: 56.7°; Thermal: 42.2°	Optical: 27.5°; Thermal: 18.7°
Electronic shutter (s)	1/3 s - 1 / 100000 s	1/3 s - 1 / 100000 s
Sensitivity (lux)	0.03 (colour), 0 (black and white, IR LEDs ON)	0.03 (colour), 0 (black and white, IR LEDs ON)
IR filter	Mechanical	Mechanical
Video transmission	Optical triple streaming + thermal streaming	Optical triple streaming + thermal streaming
Video resolution	Optical: 2592x1944 (5MP); Thermal: 256x192	Optical: 2592x1944 (5MP); Thermal: 256x192
Video Compression	H.265, H.265+, H.264, H.264+, MJPEG	H.265, H.265+, H.264, H.264+, MJPEG
Frame rate	Optical: 30fps; Thermal: 30fps	Optical: 30fps; Thermal: 30fps
Protocols supported	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
Thermal Video Analysis	Line crossing, intrusion area, fire detection, temperature detection	Line crossing, intrusion area, fire detection, temperature detection
Optical Video Analysis	Video Exception, Line crossing, Region entrance, Region exit, Target count, Region intrusion, Face detection	Video Exception, Line crossing, Region entrance, Region exit, Target count, Region intrusion, Face detection
Detectable temperature range	-20 °C-150 °C	-20 °C-150 °C
Back light compensation (BLC)	BLC, HLC	BLC, HLC
Digital effects	Defog, ROI zones	Defog, ROI zones
Wide Dynamic Range (WDR)	WDR (120Db)	WDR (120Db)
Micro SD Card slot	Micro SD card slot (supports up to 256 GB)	Built-in micro SD card slot (supports up to 256 GB)
POE power supply	Standard IEEE 802.3af (class 0)	Standard IEEE 802.3af (class 0)
IP rating	IP67	IP67
Signals	Led flash and Speaker	Led flash and Speaker
Alarm inputs/outputs	1/1	1/1
Power supply voltage	12VDC	12VDC
Type of power supply	External power supply, PoE	External power supply, PoE
Accessories	JBA-TBBA, CMA-KTBBA, WMA-KTBBA, PMA-A, AMA-A.	JBA-TBBA, CMA-KTBBA, WMA-KTBBA, PMA-A, AMA-A.

ADVANCE SERIES

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 (120 dB)
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

BRKPAN-WM

WALL BACKPLATE
Wall mounting backplate for panel art. IPTHPAN02FA.

BRKPAN-SA

DESK BACKPLATE
Desk base for panel art. IPTHPAN02FA.

BRKPAN

SWIVEL BACKPLATE
Swivel backplate for panel art. IPTHPAN02FA.

BRKPAN-LA

FLOOR BACKPLATE
Floor mounting backplate for panel art. IPTHPAN02FA.
Adjustable height 0.67 to 1.48 m.

43082TH

POWER SUPPLY UNIT NO JACK 230VAC/12VDC 1.33A.
Plug-in power supply unit for panel art. IPTHPAN02FA.
Input from 100 to 240 VAC/50-60 Hz, output 12 VDC/1.33A.

ADVANCE SERIES

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	<35mK@25°C
Video Compression	Smart H.265, H.265+, H.265, Smart H.264, H.264+, H.264, MJPEG
Frame rate	Optical: 30fps; Thermal: 15fps
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 (120 dB)
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
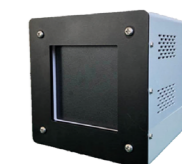
Black body for self-calibration of thermal camera art. IPTHBCAMA05F01A. Adjustable temperature measurement range between 5 and 50°C, temperature resolution of 0.1°C, measurement accuracy 30.1°C@40°C, measurement stability 3(0.1-0.2)°C/30 minutes, laser application area 70x70 mm, effective emission 0.9730.02.

BRKTHCAMA

Floor-standing tripod, for use in conjunction with fixing plate art. BRKTHCAMA01, for thermal camera art. IPTHBCAMA05F01A. Adjustable height 65 to 206 cm. Adjustable vertical angle position 90° (low) to -65° (high), 360° adjustable horizontal angle. Maximum load capacity 5 kg.

ADVANCE SERIES

Platform products

FEATURES

Servers

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

Network Storage up to 64 HDD

Devices with X86 architecture, these 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

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.

ADVANCE SERIES

Servers

	SRV-VMS500B	SRV-TRS510A	SRV-DSK300B
Server management	YES	\	YES
VMS client mode	YES	\	S
Transfer server	YES	YES	YES
Storage server	YES, 120 GB SSD + slot 2 x 8TB hhd max	\	\
Incoming bandwidth	880 Mbps	880 Mbps	256Mbps
Outgoing bandwidth	880Mbps (Live view + transfer)	880Mbps	256Mbps
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
Type of power supply	External power supply	External power supply	External power supply

	SRV-STG024A	SRV-STG016A
Server management	\	\
VMS client mode	\	\
Transfer server	YES	YES
Storage server	YES, slot 24 x 16TB hdd max	YES, slot 16 x 16TB hdd max
Incoming bandwidth	900Mbps	900Mbps
Outgoing bandwidth	96Mbps	96Mbps
Maximum number of channels connected	24 in transfer (3Mbps per ch)	24 in transfer (3Mbps 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	24 (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 800W redundant 100-240V-10-5A /50-60Hz"	2 x built-in power supply units 550W redundant 100-240V-7-3.4A/50-60Hz"
Dimensions	700 x 600 x 130	700 x 500 x 130
Absorption	800 W	550 W
Type of power supply	External power supply	External power supply

ADVANCE SERIES

Decoder

	DEC0802	DEC0804
OS	Embedded Linux	Embedded Linux
Video Compression	H.265 / H.264	H.265 HP/MP/BP, H.264 HP/MP/BP
Video inputs	-	HDMI x 1: 3840 x 2160 / 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, 3840 x 2160 (odd number ports supported) /1920 x 1080 / 1280 x 1024; VGA x 4: 1920 x 1080 / 1280 x 1024; BNC x 4: CVBS output"
Frame Rate	1-25fps/CH (PAL), 1-30fps/CH (NTSC)	1-50fps/CH (PAL), 1-60fps/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@30fps / 8CH 4MP@30fps / 16CH 1080P@30fps / 32 CH 720P@30fps	8CH 8MP@30fps / 16 CH 4MP@30fps / 32CH 1080P@30fps or 64CH 720P@30fps 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
Split-screen mode	1 x 2, 2 x 1	1 x 2, 2 x 1, 2 x 2
Audio	Audio in x 1, audio out x 1 RCA, two-way audio	Audio in x 1, audio out x 1 RCA, 3.5 mm audio interface (level: 2.0Vp-p, 1Kff) , RCA 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 USB3.0 x 1, USB2.0 x 2	USB3.0 x 1, USB2.0 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

Accessories

USB alarm box

USBOX01A

Compatible with all NVRs and XVRs, this can be used to expand alarm inputs and outputs (16 inputs and 6 outputs). The Plug & Play system is easy to install; when connected to the USB port with 5V power supply it is recognised immediately by the module.

-Alarm module with 16 inputs and 6 outputs
-Supports USB connection with 5V power supply
-Easy Plug &Play installation with XVR and NVR

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
	WDSK328A	HARD DISK WD PURPLE, CAPACITY 6TB FOR CCTV
	WDSK329A	HARD DISK WD PURPLE, CAPACITY 8TB FOR CCTV

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. Compatible with Advance 4-channel recorders. Maximum recorder size: 375x335x95mm.
	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. Compatible with Advance 8/16/32-channel recorders. Maximum recorder size: 485x470x95mm.
	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. Compatible with all NVR and XVR 4/8/16/32-channel recorders in the Advance series. Monitor: 18.5 - 21.5 inches. Maximum recorder size: 480x400x180mm.

ACCESSORIES

Accessories

IPTCAMA04ZB
IPTCAMA08ZB
IPTCAMN04ZA
IPTCAMN08ZA

IPTCAMN04F01A
IPTCAMN04FCUA
IPTCAMA04FCUB

IPTHBCAMA03A
IPTHBCAMA07A
IPBCAMA05Z02A
IPBCAMN04FCUA
IPBCAMN04ZCUA
IPBCAMA04FCUB
IPBCAMA04ZCUB

IPBCAMN04F01A
IPBCAMA04FB
IPBCAMA04ZB
IPBCAMA08FB
IPBCAMN04FA
IPBCAMN04ZA
IPBCAMN08FA
IPBCAMN08ZA

IPFCAMA06FA
IPPTZA04Z04A

IPPTZA04Z40B
IPPTZA08Z37A

IPPTZA02Z25A

IPSCAMA08F04A

IPKCAMA04ZB
IPKCAMA08ZB

IPBCAMA04Z01B
IPBCAMA08Z01B
IPBCAMA04Z550B
IPLPRA02ZA

IPTCAMA04FB
IPTCAMA08FB
IPTCAMA05Z02A
IPTHTCAMA03A
IPTHTCAMA07A
IPTCAMN04FA
IPTCAMN08FA
IPTCAMN04ZCUA
IPTCAMA04ZCUB

JBA-TVA

JBA-BA

JBA-FA

INCLUDED

CMA-PTZA

PMAJB-A

AMAJB-A

JBA-KA

CMA-KCAMA

JBA-TBBA

WMA-FA

CMA-FA

CMA-PTZ02A

WMA-TVA

CMA-TVA

WMA-BA

CMA-BA

WMA-KTBBA

CMA-KTBBA

PMA-A

PMA-A

All models

IPPTZA02Z25A
IPPTZA04Z40B

All models

ACCESSORIES

Accessories

IPBCAMA04FBB
IPBCAMA04ZBB

IPTCAMA04ZBB

IPTCAMA04FBB

JBA-BAB

JBA-TVAB

JBA-TBBAB

PMA-AB

AMA-AB

CMA-BAB

WMA-TVAB

All models

All models

CMA-KTBBAB

WMA-KTBBAB

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.

ADVANCE SERIES

Monitors

	MMON185A	MMON022A	MMON024C
Type of display	18.5″ LED	22″ LED	24″ 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/m²) (m²)	250	250	250
Audio inputs/outputs	1/2 (Speakers, 2W)	1/2 (Speakers, 2W)	1/2 (Speakers, 2W)
Power supply	100-240V, 50-60 Hz, <30W	DC 12V/2A	DC 12V/2.5A
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	284 x 492.7 x 39.5	320.4 x 539.2 x 39.5

	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/m²) (m²)	250	320	320
Audio inputs/outputs	0/1 (Speakers, 3W)	1/0 (Speakers, 5W)	1/0 (Speakers, 5W)
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

ADVANCE SERIES

Switches

	IPSWN08N01A	IPSWC160A	IPSWC242A
Web Managed	-	-	Yes
LAN ports	8 x10/100/1000Mbps RJ45 Port	16x10/100/1000Mbps RJ45 Port	"24x10/100/1000Mbps 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 1000Mbps SFP module
Switching capacity	16Gbps	32Gbps	52Gbps
Packet buffer 1.5 M bit	1.5 M bit	-	-
Forwarding Rate	11.9Mpps	1.4Mpps	1.4Mpps
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	>50000 hours	>50000 hours	>50000 hours
Electrostatic standard	Contact 6KV, air 8KV	Contact 6KV, air 8KV	Contact 6KV, air 8KV
Accessories	Power supply unit included	-	-

ADVANCE SERIES

PoE switch

	IPSWP06N01A	IPSWP10N01A	IPSWP22N01A
LAN ports	6x10/100/1000Mbps RJ45 port	10x10/100/1000Mbps RJ45 port	"16x10/100/1000Mbps RJ45 Port 2x10/100/1000Mbps Combo port 2x 10/100/1000Mbps RJ45 Port"
Supported standards/ protocols	"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)"
PoE LAN ports	4	8	16
Standard PoE	IEEE802.3af/at	IEEE802.3af/at	IEEE802.3af/at
Budget PoE	Total 65W, Max 32W for PoE port	Total 120W, Max 32W for PoE port	Total 250W, Max 32W for PoE port
SFP Slots	-	-	2x 1000Mbps SFP module
Switching capacity	12Gbps	20Gbps	40Gbps
Packet buffers	1.5 M bit	2M bit	4.1M bit
Forwarding Rate	8.9Mpps	13.4Mpps	29.8Mpps
MAC address table	4K, Automatic study, automatic updates	8K, Automatic study, automatic updates	8K, Automatic study, automatic updates
Maximum PoE transmission distance	Up to 250 m	Up to 250 m	Up to 250 m
Main functions	VLAN and CCTV Mode	VLAN and CCTV Mode	VLAN and CCTV Mode
Jumbo management	9216 Byte	9216 Byte	9216 Byte
Fan	FANLESS	1 FAN	2 FANS
LED indicators	PWR (Green), LNK/ACT (Green) PoE (Orange)	PWR (Green), LNK/ACT (Green) PoE (Orange)	PWR (Green), LNK/ACT (Green) PoE (Orange)
Power supply	DC 54.5V/1.32A	100-240V AC, 50/60Hz	100-240V AC, 50/60Hz
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	168 x 93 x 32	220 x 150 x 44	440 x 207 x 44
Weight	<1 kg	>1 kg	<5 kg
Type of finish	Metal	Metal	Metal
Colour	Black	Black	Black
Surge protection	Differential mode 34KV, Common mode 36KV	Differential mode 34KV, Common mode 36KV	Differential mode 34KV, Common mode 36KV
MTBF	>50000 hours	>50000 hours	>50000 hours
Electrostatic standard	Contact 4KV, air 6KV	Contact 4KV, air 6KV	Contact 6KV, air 8KV
Accessories	Power supply unit included	-	Rack fixing backplates

ADVANCE SERIES

PoE switch

	IPSWP06N02A	IPSWP02NA	IPSWP06N100A	IPSWP08N100A
LAN ports	4x10/100/1000Mbps RJ45 port	3x10/100/1000Mbps RJ45 Port	2 Uplink (10/100 Mbit/s)	2 Uplink (10/100 Mbit/s)
Supported standards/protocols	IEEE802.3u/ab/az, IEEE802.3x (full-duplex)/back pressure (half-duplex)"	IEEE802.3, IEEE802.3u, IEEE802.3ab,, IEEE802.3x, IEEE802.3af, IEEE802.3at, IEEE802.3bt	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	2	4	8
Standard PoE	IEEE802.3af/at	IEEE802.3af/at/bt	IEEE802.3af/at	IEEE802.3af/at
Budget PoE	Total 65W, Max 32W for PoE port	1 input 95W max, 2 RJ45 outputs 30W each	Total 60W, Max 32W for PoE port	Total 120W, Max 32W for PoE port
SFP Slots	2x 1000Mbps SFP module	-	-	-
Switching capacity	12Gbps	6Gbps	1.2Gbs	2Gbps
Packet buffers	1.5 M bit	-	1.5 M bit	1.5 M bit
Forwarding Rate	8.9Mpps	-	11.9Mpps	1.4Mpps
MAC address table	4K, Automatic study, automatic updates	Automatic learning, automatic update	1K, automatic learning and updates	8K, automatic learning and updates
Maximum PoE transmission distance	-	-	Up to 100m	Up to 100m
Main functions	-	-	CCTV Mode	VLAN and CCTV Mode
Jumbo management	9216 Byte	-	1536Byte	1664Byte
Fan	FANLESS	FANLESS	FANLESS	1 FAN
LED indicators	PWR (Green), LNK/ACT (Green) PoE (Orange)	PWR, LNK/ACT	PWR, LNK/ACT	PWR, LNK/ACT
Power supply	DC: 48-57V	PoE	100-240 VAC / 50-60 Hz	100-240 VAC / 50-60 Hz
Operating temperature	-40°C - +75°C	-20°C - 60 °C	0°C - +40°C	0°C - +40°C
Storage temperature	-40°C - +80°C	-40°C - +80°C	-40°C - +70°C	-40°C - +70°C
Operating humidity	10%-90% RH without condensation	<90%	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	165 x 147 x 54	150 x 73 x 44	140 x 76.7 x 28	220 x 150 x 44
Weight	<2 kg	<1 kg	<1 kg	<2 kg
Type of finish	Metal	Metal (IK10)	Metal	Metal
Colour	Black	Grey	Black	Black
Surge protection	Differential mode 34KV, Common mode 36KV	Differential mode 34KV, Common mode 36KV	Difference module 31KV, Common mode 32KV	Difference module 31KV, Common mode 32KV
MTBF	>100000 hours	>50000 hours	>50000 hours	>50000 hours
Electrostatic standard	Contact 8KV, air 10KV	Contact 6KV, air 8KV	Contact 6KV, air 8KV	Contact 6KV, air 8KV
Accessories	PS4825A (not included)	-	-	-

ADVANCE SERIES

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 8 km	Up to 8 km	Up to 8 km
Network interface	10/100 Mb/s LAN	Gigabit LAN	/
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 QA, TDMA	BPSK, QPSK,16 QAM, 64 QA, TDMA
Maximum transmission power (dBm)	25	25	30
Sensitivity@datarate	-97dBm@20MHz-MCS0, -77dBm@20MHz MCS7	-97dBm@20MHz-MCS0, -77dBm@20MHz MCS7	-96dBm@20MHz-MCS0, -72dBm@20MHz-MCS7
Coverage angle	11°	11°	11°
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

ADVANCE SERIES

Built-in antennas

	BASE-5A	KITCPE-515A	KITCPE-520A
Wi-Fi type	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
Transmission distance	Up to 8 km	Up to 8 km	Up to 8 km
Network interface	Gigabit LAN	Gigabit LAN	Gigabit LAN
Antenna	OFDM or DSSS with NLOS capacity	OFDM or DSSS with NLOS capacity	OFDM or DSSS with NLOS capacity
Operating modes	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
IP rating	anti-vandal IP68	anti-vandal IP68	anti-vandal 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, 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
Operating frequency (GHz)	4.9 - 5.85	4.9 - 5.85	4.9 - 5.85
Available band (Mbit/s)	/	/	/
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	25
Sensitivity@datarate	-97dBm@20MHz-MCS0, -77dBm@20MHz MCS7	-97dBm@20MHz-MCS0, -77dBm@20MHz MCS7	-97dBm@20MHz-MCS0, -77dBm@20MHz MCS7
Coverage angle	9°	9°	9°
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, 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
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 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
Accessories	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

ADVANCE SERIES

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.

WITH
YOU
ALWAYS

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