



Person

Top Color / Bottom Color / Bag



Face

Face Recognition / Face Detection
/ Gender / Age



Vehicle

Vehicle license plate recognition
Marker / Model / Color / Type



Object

Car / Bicycle / Motorcycle
/ Bus / Bag / Truck

2023 VCA AI CAMERA



ALL IN ONE



NX Embedded

Providing a complete camera-VMS solution, at the edge. It brings all the advanced features of the Nx Witness server to the camera, allowing you to realise a completely distributed solution, a server free VMS.



ANPR & Vehicle Recognition

Available across the IPAi range, the plugin can turn your camera into a license plate detector with the added optional feature of make, model and colour recognition. Used as part of an integrated solution or standalone for access control

Comprehensive line of cameras

The VCA AI camera range delivers a comprehensive line of cameras from 2MP up to 12MP that come in bullet, dome, minidome, pinhole, panoramic, and multi-sensor formats. The range of cameras provides a complete solution for any scenario, and with our advanced VCA edge analytics plugin, you're covered for all your needs.



Bringing the advanced AI tracking features of VCA to the camera

The VCA edge plugin allows AI analytics and events to be produced on the camera, removing the need for server hardware using three deep learning engines to provide excellent results.



Face Recognition

Turning the camera into a FACE detector, this plugin can create an event when a face is detected and forward the metadata as part of an integrated solution or can be used as a standalone facial recognition system for applications such as access control and time and attendance.



VCAforensics has been designed to work seamlessly with our video analytics, by storing all the metadata and taking snapshot images from our analytics engine. Our application provides a user interface to allow post-event forensic searches, helping to reduce time-draining investigations by allowing users to search hours, days and weeks of video footage for objects of interest in seconds.



RetailTrend uses VCA's industry leading analytics to generate and report highly accurate data on visitor statistics and demographics across Day/Week/Month, By Day/Hour on the inbuilt dashboards. Reports are built on the data provided by our advanced trackers, detecting and tracking people and interactions in real time, not by sampling, making outputs accurate and reliable.

AI Technology



DLOT _ Deep Learning Object Tracker

Designed for accurate detection and tracking of people, type of vehicles, and key objects in challenging environments where motion based tracking methods would struggle.



DLPT _ Deep Learning People Tracker

Designed to track people in dense and crowded environments where potentially only the head of a person is visible. Highly accurate and optimised for people counting and behaviour detection.



VCA Vehicle _ ANPR & Vehicle Recognition

This technology enables efficient control by accurately extracting vehicle attributes such as manufacturer, model, color and vehicle type as well as detecting vehicle license plates.



VCA Face _ Face Recognition

This technology not only sends an alarm when it recognizes a face that matches a registered person, but it also enables you to expand your business by utilizing the extracted information such as age and gender.

APPLICATIONS



SECURITY and LOSS PREVENTION

Our roots are in the Security sector. Our first products were designed to be installed in a range of IP CCTV cameras, perhaps the very first commercially available edge based analytics. Since then, we have extended our range of edge based analytics, including multiple Deep Learning engines and cameras. Working alongside the Worlds leading VMS, PSIM and NVR providers we have the widest range of analytics rules and events to provide a solution for almost any application.



RETAIL and BANKING

Analytics is about extracting the metadata from the video. As well as providing security and loss prevention services, VCA can also take the metadata and provide valuable insights into what is really happening in location, customer numbers, travel through the site, behaviour, dwell, queue data and much more. No special cameras or sensors, a single camera can provide security, loss prevention, business analytics and marketing insights.



TRANSPORTATION

Of course, security is a key part of any transport hub or mode, protecting people and assets and VCA can play a major part in improving this protection, detecting suspicious objects, protecting perimeters, alerting suspicious or aggressive behaviour. In addition, our ability to identify types of vehicles, colours and direction enables VCA to be used in wide range of safe city and highway applications.



FORENSIC SEARCH

VCA is constantly extracting the metadata from every camera connected, from every frame, every second building up an extensive database of metadata, data about data. Our forensic search tool enables the search of all of this metadata to find a person, vehicle or object of interest. For example, set a search criteria of all people wearing red tops and black trousers carrying an orange bag between 10am and 4pm on this day and with seconds, the image will be returned. Image search also enables images to be uploaded and searched.

SPECIFICATION

5
MP



	5MP Compact IR Dome IPAI365-FR	5MP Mini IR Dome IPAI355-MR	5MP Mini IR Bullet IPAI655-FR	5MP IR Bullet IPAI65A05-MR
Image Sensor	1/2.8" 5.14M CMOS	1/2.8" 5.14M CMOS	1/2.8" 5.14M CMOS	1/2.8" 5.14M CMOS
Focal Length	2.8mm(F1.8)	2.7~13.5mm(F1.4)	4.0mm(F2.0)	2.7~13.5mm(F1.4)
Lens Type	Fixed	Two motor MFZ	Fixed	Two motor MFZ
Iris Type	Auto Exposure	P-IRIS	Auto Exposure	P-IRIS
FoV	D: 125.5°, H: 102.4°, V: 77.4°	D:39.4°~125.5°, H:31.6°~98.3°, V:23.5°~70.8°	D:106.6°, H:82.3°, V:58.8°	D:39.4°~125.5°, H:31.6°~98.3°, V:23.5°~70.8°
Day and Night	TDN(True day&Night)	TDN(True day&Night)	TDN(True day&Night)	TDN(True day&Night)
Min. Illumination	Color : 0.13Lux BW : 0Lux with IR	Color : 0.08Lux BW : 0Lux with IR	Color : 0.16Lux BW : 0Lux with IR	Color : 0.08Lux BW : 0Lux with IR
WDR	True WDR	True WDR	True WDR	True WDR
Video CODEC	H.264, H.265, MJPEG	H.264, H.265, MJPEG	H.264, H.265, MJPEG	H.264, H.265, MJPEG
Max Resolution	2592 x 1944	2592 x 1944	2592 x 1944	2592 x 1944
Frame Rate	30fps	30fps	30fps	30fps
Audio Input/Output	1[Built-in Mic]/1	1[Built-in Mic]/1	-	1/1
DI/DO	1/1	1/1	-	1/1
Edge Storage	micorSD	micorSD	micorSD	micorSD
Power Source	12V, PoE(IEEE 802.3af Class3)	12V, PoE(IEEE 802.3af Class3)	12V, PoE(IEEE 802.3af Class3)	12V, PoE+(IEEE 802.3at Class4)
Operating Temperature	-30°C ~ 50°C	-30°C ~ 50°C	-30°C ~ 50°C	-40°C ~ 50°C
Weather Proof Rating	IP67	IP67	IP67	IP67
Impact Protection	IK10	IK10	-	IK10
Dimensions (W x H)	ø105 x 60.7mm	ø125 x 92mm	174mm x 72mm	310mm x 96.7mm



5MP Telephoto IR Bullet
IPAi65A05-ZR

5MP LPR IR Bullet
IPAi65A05-ZRL

5MP IR Fisheye
IPAi255-FR

5MP Flashlight Full Color Turret
IPAi375-MCA

5MP Flashlight IR Turret
IPAi375-MRA

Image Sensor	1/2.8" 5.14M CMOS	1/2.8" 5.14M CMOS	1/2.8" 5.14M CMOS	1/2.8" 5.14M CMOS	1/2.8" 5.14M CMOS
Focal Length	6~50mm(F1.6)	6~50mm(F1.6)	1.19mm(F2.0)	2.7~12mm(F1.2)	2.7~13.5mm(F1.4)
Lens Type	Two motor MFZ	Two motor MFZ	Fisheye	Two motor MFZ	Two motor MFZ
Iris Type	P-IRIS	P-IRIS	Auto Exposure	P-IRIS	P-IRIS
FoV	D:8.6° ~ 52°, H:6.9° ~ 40.8°, V:5.2° ~ 30.2°	D:8.6° ~ 52°, H:6.9° ~ 40.8°, V:5.2° ~ 30.2°	D:180°, H:180°, V:180°	D:39.4°~115.9°, H:31.5°~89.9°, V:23.6°~64.5°	D:39.4°~125.5°, H:31.6°~98.3°, V:23.5°~70.8°
Day and Night	TDN(True day&Night)	Black & White only	TDN(True day&Night)	Day(Color) mode only	TDN(True day&Night)
Min. Illumination	Color : 0.1Lux BW : 0Lux with IR	BW : 0Lux with IR	Color : 0.16Lux BW : 0Lux with IR	Color : 0Lux with Warm white LED	Color : 0.08Lux BW : 0Lux with IR
WDR	True WDR	-	True WDR	True WDR	True WDR
Video CODEC	H.264, H.265, MJPEG	H.264, H.265, MJPEG	H.264, H.265, MJPEG	H.264, H.265, MJPEG	H.264, H.265, MJPEG
Max Resolution	2592 x 1944	2592 x 1944	2592 x 1944	2592 x 1944	2592 x 1944
Frame Rate	30fps	30fps	30fps	30fps	30fps
Audio Input/Output	1/1	1/1	1[Built-in Mic]/1	1[Built-in Mic]/1[Built-in Speaker]	1[Built-in Mic]/1[Built-in Speaker]
DI/DO	1/1	1/1	1/1	1/1	1/1
Edge Storage	micorSD	micorSD	micorSD	micorSD	micorSD
Power Source	12V, PoE+(IEEE 802.3at Class4)	12V, PoE+(IEEE 802.3at Class4)	12V, PoE(IEEE 802.3af Class3)	12V, PoE(IEEE 802.3af Class3)	12V, PoE(IEEE 802.3af Class3)
Operating Temperature	-40°C ~ 50°C	-40°C ~ 50°C	-30°C ~ 50°C	-30°C ~ 50°C	-30°C ~ 50°C
Weather Proof Rating	IP67	IP67	IP67	IP67	IP67
Impact Protection	IK10	IK10	IK09	IK10	IK10
Dimensions (W x H)	310mm x 96.7mm	310mm x 96.7mm	ø125 x 58mm	ø125 x 122mm	ø125 x 122mm

SPECIFICATION

8/12
MP



	8MP Mini IR Dome IPAI358-MR	8MP IR Bullet IPAI65A08-MR	12MP IR Fisheye IPAI259-FR	8MP 180° view IR Bullet IPAI66A08-FR
Image Sensor	1/2.8" 8.29M CMOS	1/2.8" 8.29M CMOS	1/2.3" 12.3M CMOS	1/1.8" 8.5M CMOS
Focal Length	2.7 ~ 13.5mm(F1.4)	2.7 ~ 13.5mm(F1.4)	1.55mm(F2.0)	2.3mm(F2.8)
Lens Type	Two motor MFZ	Two motor MFZ	Fixed	Fixed
Iris Type	P-IRIS	P-IRIS	Auto Exposure	Auto Exposure
FoV	D:38.2°~105°, H:33.1°~90.3°, V:18.9°~49°	D:38.2°~105°, H:33.1°~90.3°, V:18.9°~49°	D:185°, H:185°, V:185°	H:180°, V:80°
Day and Night	TDN(True day&Night)	TDN(True day&Night)	TDN(True day&Night)	TDN(True day&Night)
Min. Illumination	Color : 0.09Lux BW : 0Lux with IR	Color : 0.09Lux BW : 0Lux with IR	Color : 0.5Lux BW : 0Lux with IR	Color : 0.29Lux BW : 0Lux with IR
WDR	True WDR (Max. 15fps when WDR is on)	True WDR (Max. 15fps when WDR is on)	True WDR (Max. 15fps when WDR is on)	True WDR (Max. 15fps when WDR is on)
Video CODEC	H.264, H.265, MJPEG	H.264, H.265, MJPEG	H.264, H.265, MJPEG	H.264, H.265, MJPEG
Max Resolution	3840 X 2160	3840 X 2160	4000 X 3000	3840 X 2160
Frame Rate	30fps	30fps	30fps	30fps
Audio Input/Output	1[Built-in Mic]/1	1/1	1[Built-in Mic]/1	1/1
DI/DO	1/1	1/1	1/1	1/1
Edge Storage	micorSD	micorSD	micorSD	micorSD
Power Source	12V, PoE(IEEE 802.3af Class3)	12V, PoE+(IEEE 802.3at Class4)	12V, PoE(IEEE 802.3af Class3)	12V, PoE(IEEE 802.3af Class3)
Operating Temperature	-30°C ~ 50°C	-40°C ~ 50°C	-30°C ~ 50°C	DC12V : -40°C ~ 50°C, PoE : -30°C ~ 50°C
Weather Proof Rating	IP67	IP67	IP67	IP67
Impact Protection	IK10	IK10	IK10	IK09
Dimensions (W x H)	ø125 x 92mm	310mm x 96.7mm	ø125 x 58mm	228mm x 96.7mm

MULTI SENSOR



10MP Mini Dual IR Dome
IPAI96A10-FR

5MP Dual Thermal Bullet
IPAI98A05-Q56

		Visible	Thermal
Image Sensor	1/2.8" 5.14M CMOS x 2EA	1/2.8" 5.14M CMOS	Uncooled Vanadium Oxide Microbolometer Spectral Response : 7.8~14 μm NETD : 65mK(Typical), Less than 100mK(max) @ 25°C
Focal Length	2.8mm(F1.8)	4.0mm(F2.0)	4.0 mm(F1.0)
Lens Type	Fixed	Fixed	Fixed
Iris Type	Auto Exposure	Auto Exposure	-
FoV	D : 125.5°, H : 102.4°, V : 77.4°	H:82.3°, V:58.8°	H : 56°, V : 42°
Day and Night	TDN(True day&Night)	TDN(True day&Night)	-
Min. Illumination	Color : 0.13Lux BW : 0Lux with IR	Color : 0.16Lux BW : 0Lux with IR	-
WDR	True WDR	True WDR	-
Video CODEC	H.264, H.265, MJPEG	H.264, H.265, MJPEG	H.264, H.265, MJPEG
Max Resolution	2592x1944	2592x1944	320(H) X 240(V), Pixel size : 1.2 μm
Frame Rate	30fps	30fps	9fps
Audio Input/Output	1[Built-in Mic]/1		1/1
DI/DO	1/1		1/1
Edge Storage	micorSD		micorSD
Power Source	12V, PoE(IEEE 802.3af Class3)		12V, PoE(IEEE 802.3af Class3)
Operating Temperature	-30°C ~ 50°C		DC12V : -40°C ~ 50°C, PoE : -30°C ~ 50°C
Weather Proof Rating	IP67 / IK10		IP67 / IK09
Dimensions(W x H)	ø139 x 74mm		216mm x 64mm



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