Pro Gen4 License Plate Recognition

Edge AI LPR (ANPR) for automatic parking access intelligence

All-in-One Edge AI LPR
Illustra Edge AI LPR Camera powered by Pro4 Edge AI carrier available in Bullet and Dome variance offering powerful, all-in-one and license-free Edge LPR applications

Business Intelligence
Experience seamless integration with Exacq and VideoEdge video systems alongside C•CURE access and visitor management solutions, achieve unparalleled efficiency and automation in your operations while gaining valuable business insights

Parking Access
Effectively manage gated areas, control parking access, and ensure the security of your parking facilities across diverse market sectors

Rich Integrations
Doubled sets of I/O ports available for types of parking systems integrations, access controls and toll management

Smart & Simple
Bullet comes with smart-arm and Dome offers optional sunshield ideal for outdoor installations with LPR Best Practice Guide provided

Powerful Edge AI
Built-in with industry's most comprehensive Video AI suite adding extra values for 24/7 surveillance operations in addition to license plate capturing

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Edge LPR for Parking Access and Security of Parking Management

Ilustra Edge AI LPR Cameras offer powerful license plate recognition (LPR) capabilities with the familiar Pro4 AI bullet and dome cameras. The ultra-clear 5-megapixel imager delivers double the resolution for superior image quality and precise plate number capture. With built-in and customizable plate lists, these cameras can recognize, allow, or deny vehicle access to gated premises or parking areas, ensuring secure and safe access management.

Optimize business intelligence with grouped plate numbers to provide varying levels of customer service upon detection. The industry-leading Illustra Pro AI suite is embedded, adding valuable AI object intelligence to protect end-customer sites.

When integrated with ExacqVision, American Dynamics victor/VideoEdge video management systems, and Software House C•CURE 9000 access control, Illustra Pro4 LPR creates a seamless and intelligent end-to-end solution.

License Plate Capture Specifications[1]

Illustra Vehicle AI suite	5MP LPR Bullet	5MP LPR Dome
Application type	Edge LPR	
License	Perpetual LPR license included and pre-activated Does not require back-end server to operate LPR capturing Does not require a pre-built SD Card to load the plate database	
Vehicle type	Car, bus, truck	
Direction range	5 ~ 15 m (15 ~ 50 ft)	
Vehicle speed	Free-flow traffic and automated vehicle access up to 56 km/h (35 mph)	
Coverage	Single lane recommended	
Smart LPR image processing	Smart auto exposure profiles: LPR (high, medium, low)	
Smart Video AI	Full version of Illustra Pro AI included [2]	
Configurations	On-site standalone operations and edge configurations supported 2,000 entries over 4 plate groups with individual event handling supported	
Multi-site interoperability	1 channel of ExacqVision or VideoEdge VMS license included Complement of VideoEdge VE LPR	
Region/country support	Standard modern license plates available in Canada, Europe and United States supported [3]	

[1] Use cases and user conditions applied. Camera mounting and lighting and weathering conditions associated with have great impacts to plate number capturing and recognition effectiveness. For more information, please refer to Pro4 LPR Best Practice Guide, quick start guide and user's manual.

[2] For optimal LPR results, it is recommended to use Video AI applications on a separated camera.

[3] Standard plates containing A-Z and 0-9 supported. For a list of supported countries and sub-regions, please refer to Pro4 LPR Best Practice Guide.

Camera Specifications

Camera	5MP LPR Bullet	5MP LPR Dome
Image sensor	Sony 1/2.8" progressive scan ultra-lowlight CMOS sensor	Sony 1/2.8" progressive scan CMOS sensor
Lens – Standard lens models	Motorized 2.7-13.5 mm, F1.4-2.8, P iris FOV (H): 103.8° ~ 33.8° FOV (V): 55° ~ 19°	Motorized 2.7-13.5 mm, F1.4-2.8, P iris FOV (H): 103° ~ 33° FOV (V): 74° ~ 25°
Focus assistant	Physical AF button on camera, remote one-push AF	
Day and night	True D/N by mechanically removable IR-cut filter, thresholds adjustable	

Minimum illumination
     – Color
     – B/W
     – IR on
	
	0.11 lux
	0.03 lux
	0 lux
		
		0.12 lux
		0.05 lux
		0 lux

Shutter speed	1/32,000 sec ~ 1/8 sec	
IR illumination	850 nm IR, power-efficient and durable Adaptive IR Smart IR	
– IR distance	Effective up to PoE 50 m (164 ft), PoE+ 70 m (230 ft)	Effective up to 50 m (164 ft)

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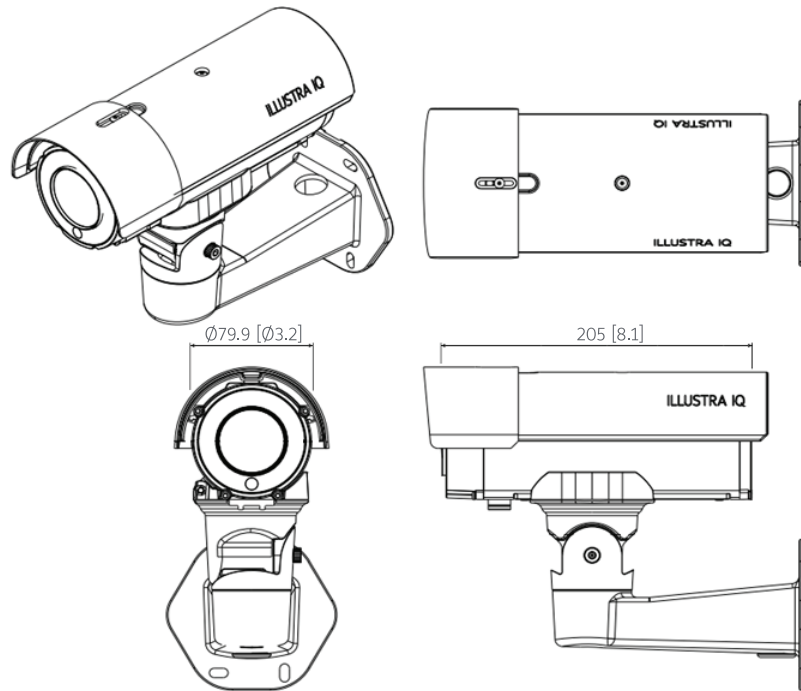
Video

Video	
Video compression	H.264 HP/MP, H.265 HP, Motion JPEG
Resolution and frame rate	Up to 2560x1440 (16:9) or 2560x1920 (4:3) at 30/25 fps, 1080p up to 60/50 fps
Video streaming	IntelliZip smart compression in H.264 and H.265 Quad streaming CBR/VBR/CVBR configurable bitrate control Higher compression ROI
Wide dynamic range	True WDR 120dB technologies Smart WDR, TWDR 2x, TWDR 3x Smart Defog
Smart image processing	AI Auto exposure: Object, person, face Smart auto exposure profiles: Gaming, LPR, various others
Image settings	Configurable color contour, auto exposure, AE compensation, auto white balance, auto gain control, auto electronic shutter, flickerless, image orientation, text overlay Digital noise reduction 2D/3D Privacy mask Corridor mode
Image stabilization	Electronic image stabilization (EIS)
Video output	1x Micro HDMI for outdoor preview or indoor PVM where waterproofing is addressed via optional HDMI Cable IA-HDM-OD-P4D

Audio

Audio		
Audio compression	G.711 μ-law	
Audio streaming	Bi-directional, full duplex	
Audio input/output	1x Line-in, 1x line-out, terminal block	Built-in Microphone 1x Line-in, 1x line-out, terminal block

Video Content Analysis

Video Content Analysis			
AI Object classifications	Classes	Person	Person
		Vehicle	Bicycle, bus, car, motorbike, train, truck
		Retail	Cart
		Suspicious objects	Backpack, handbag, suitcase
	Sub-classes	Person clothing colors (upper, lower), vehicle colors	
	Rules	Object detected, abandoned/removed objects, direction, linger, dwell, enter, exit, crowd, queue, perimeter	
AI Face detection	Yes		
AI Tamper detection	White out, black out, scene change		
AI Blur detection	Yes		
AI Metadata	Yes		
AI Smart Search	AI Person Re-ID (via VideoEdge v6.1.1 or after)		
Video motion detection	Yes		

Network

Network	
Ethernet	IEEE 802.3, 10/100 Base-T, 1x RJ45, auto sensing
Cyber security	ISASecure ISA/IEC 62443-4-1 certified secure development UK PSTI Act Schedule 1 compliant Secure boot Signed and encrypted firmware
Network security	Multi-level password protections, brute force delay protection, IP address filtering, HTTPS encryption, IEEE 802.1x (PEAP, EAP-TLS, EAPoL), digest authentication, HTTPS over TLS, WS-Security, certificate management, enhanced security (one-click security hardening, user access log, validate complex credentials, disabling unused protocols)
Supported protocols	TCP/IP, IPv4, IPv6, TCP, UDP, HTTP, FTP, DHCP, WS-Discovery, DNS, DDNS, RTP, RTCP, RTSP, TLS, Unicast, Multicast, NTP, ICMP, IGMP, SMTP, WS-Security, IEEE 802.1x, PEAP, EAP-TLS, EAPoL, SSH, HTTPS, SOAP, WS-Addressing, CIFS, UPNP, LLDP, QoS, SIP, Hostname configuration
Network management	SNMP v2c/v3
Simultaneous users	10

System Integrations

System Integrations	
Alarm	2x Line-in, 2x relay line-out (30V, 1A), terminal block
Application program interface	ONVIF Profile S, Profile G, Profile M, Profile T, test tool 23.12 or later conformant Illustra iAPI via Connected Partner program
Event triggers	Video analytics, alarm input, network loss, temperature
Event handling	Record to SD, snapshot, SMTP email out, FTP upload, CIFS, alarm output, playback audio clip, SIP call
End-to-end compatibility	ExacqVision 24.09, VideoEdge 6.4 or later

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Peripherals

Wireless configuration	1x Micro USB for use with Illustra Tools app via optional USB Wi-Fi Dongle IA-KIT-WD-UUA
Onboard storage	1x microSDXC slot, Class 10 or higher, up to 2TB capacity, card not included 1~10 sec pre/post-event buffering Encrypted storage and streaming TrickleStor offline recording and backfilling via VideoEdge and ExacqVision NVR

Mechanical

Casing	Die casting aluminum body and bracket Polycarbonate front window and sunshield	Die casting aluminum dome base Encapsulated electronics Polycarbonate clear bubble
Mounting	Smart mounting bracket	Surface mount Built-in recessed mounting kit 3-axis adjustable lens holder Outdoor weather hood (optional)
	Versatile mounting options available, see Optional Accessories	
Vandal resistance	IK10 impact-resistant rated	
Weathering resistance	IP67/66 rated, NEMA 250 Type 4X certified	IP67/66 rated, UL 50 Type 4X certified
Color	RAL 9003 signal white	
Reset buttons	1x Reboot, 1x factory reset	
Dimension (WxL)	Ø79.9 x 205 mm (Ø3.2 x 8.1 in)	Ø138 x 135 mm (Ø5.4 x 5.3 in)
Weight	Net 1.2 kg (2.7 lbs), gross 3.2 kg (7.1 lbs)	Net 1.2 kg (2.7 lbs), gross 1.7 kg (3.7 lbs)

Electrical

Power source	PoE IEEE 802.3af Type 1 Class 4, PoE+ IEEE 802.3at Type 2 Class 4 24 VAC, 1.27A, terminal block	PoE IEEE 802.3af Type 1 Class 3 24 VAC, 0.8A, terminal block
Power consumption (max)	PoE 12.95 W, PoE+ 18.72 W, 24 VAC 21 W	PoE 12.95 W, 24 VAC 16.5W
Dual power redundancy	Supported	

Environmental

Operating conditions	-50 °C ~ 60 °C (-58 °F ~ 140 °F)	-50 °C ~ 60 °C (-58 °F ~ 140 °F)
	Maximum temperature (intermittence): 65 °C (165 °F) Up to 0 ~ 95% RH non-condensing	
Cold start temperature	-40 °C (-40 °F)	
Storage conditions	-40 °C ~ 65 °C (-40 °F ~ 165 °F) Up to 0 ~ 95% RH non-condensing	

Regulatory

EMC	BS/EN 55032 Class A, IEC/BS/EN 61000-3-2/3, BS/EN 50130-4, IEC/EN 61000-4-2/3/4/5/6/8/11, FCC Part 15 Subpart B Class A, ICES-003/NMB-003, Class A, IEC/BS/EN 61000-6-4, BS/EN 50121-1, BS/EN 50121-4	BS/EN 55032 Class A, BS/EN 61000-3-2/3, BS/EN 50130-4, IEC 61000-4-2/3/4/5/6/8/11, IEC/EN 61000-6-1/2, FCC, Part 15 Subpart B Class A, ICES-003/NMB-003 Class A
Safety	IEC/UL/CB 62368-1, CAN/CSA-C22.2 No. 62368-1 IEC/UL/CB 60950-1, CAN/CSA-C22.2 No. 60950-1	
Environment	NEMA 250 Type 4X	UL 50 Type 4X
	IEC/EN 62262 (IK10), IEC/EN 60529 (IP67/66) RoHS, WEEE, REACH	

General

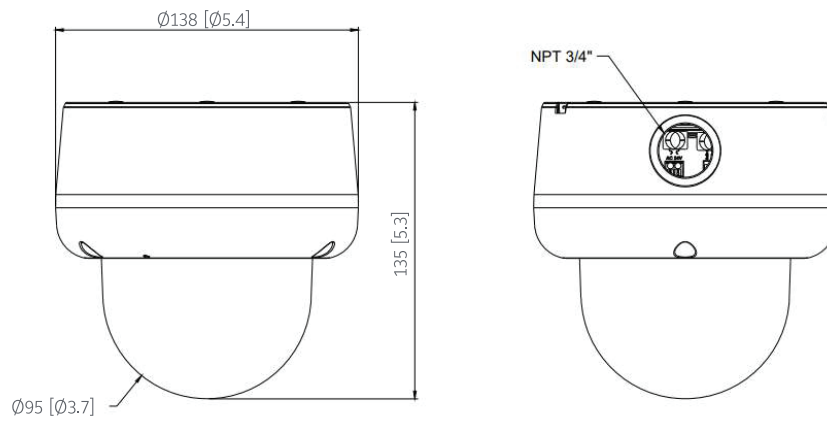|	
Web browser support	Edge, Firefox, Safari, Chrome
Device configuration	ONVIF, Web browser, Illustra Connect (Windows), Illustra Tools (iOS, Android)
Language	Arabic, Chinese (Simplified), Chinese (Traditional), Czech, Danish, English (default), French, German, Hungarian, Italian, Japanese, Korean, Netherlands, Polish, Portuguese, Russian, Spanish, Swedish, Turkish
NDAA compliant	Yes
TAA compliant	Yes
Warranty	5 years

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Dimensions

Unit: mm [in]

Bullet

Ø79.9 [Ø3.2]

205 [8.1]

Dome

Ø138 [Ø5.4]

NPT 3/4"

135 [5.3]

Ø95 [Ø3.7]

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Ordering Information

Camera Type	Part Number	Product Name	Description
Bullet	IPS05-B12-LPR4	Pro4 LPR Bullet 5MP	Illustra Pro Gen4 5MP LPR Bullet, 2.7-13.5mm, TDN, w/IR, Indoor/Outdoor
Dome	IPS05-D12-LPR4	Pro4 LPR Dome 5MP	Illustra Pro Gen4 5MP LPR Dome, 2.7-13.5mm, TDN, w/IR, Indoor/Outdoor

Optional Accessories

Bullet

Dome
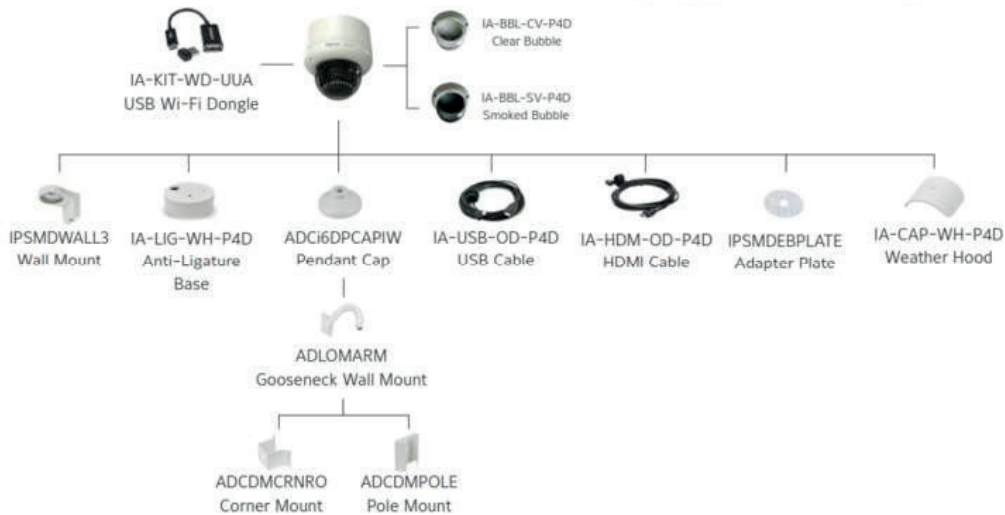
Part Number	Description
ADCDMCRNRO	Corner Mount
ADCDMPOLE	Pole Mount
ADCi6DPCAPIW	Pendant Cap
ADLOMARM	Gooseneck Wall Mount
IA-BBL-CV-P4D	Pro4 Dome Bubble Assembly, Clear
IA-BBL-SV-P4D	Pro4 Dome Bubble Assembly, Smoked
IA-CAP-WH-P4D	Pro4 Dome Weather Hood (Sunshield)
IA-HDM-OD-P4D	HDMI Cable, Micro HDMI male to Type A male, 3 m (9.8 ft)
IA-KIT-WD-UUA	USB Wi-Fi Dongle
IA-LIG-WH-P4D	Pro4 Dome Anti-Ligature Base
IA-USB-OD-P4D	USB Cable, Micro-B male to Type A female, 5 m (16.4 ft)
IFBMNTBOX	Junction Box
IPSMDEBPLATE	Adapter Plate
IPSMDWALL3	Wall Mount

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