

NDM-7712-AL Multi dome 4x3MP 3.2-8.1mm IP66 IR

FLEXIDOME multi 7100i IR



- ▶ Four 3MP imagers at 30 fps in one camera on a single IP address for full 360° coverage
- ▶ IVA Pro brings highly reliable deep-learning based detection of persons and vehicles to scenes ranging from sterile zones to crowded and congested
- ▶ HDR X - High Dynamic Range to see every detail in both bright and dark areas of the scene without HDR motion blur and artefacts
- ▶ Built-in microphone and alarm, audio and inputs and outputs enable sound-triggered alerts and two-way communication for smarter response
- ▶ Integrated surround IR illumination for distances up to 30 meters for pitch dark scenes

The NDM-7712-AL camera delivers powerful, high-performance surveillance with four independent imagers and motorized zoom/focus lenses — all in one intelligent camera. Designed to simplify installation and reduce total system costs, it provides unmatched flexibility without compromising coverage.

With four scenes captured simultaneously, it's the ideal solution for wide areas, traffic intersections, and building corners. When ceiling-mounted, it delivers full 360° coverage; when corner-mounted, it provides 270° visibility. Advanced zoom capabilities enable clear, detailed monitoring even at longer distances.

The cameras have a powerful, embedded processor with dedicated hardware to support advanced machine learning and deep neural network-based Video Analytics. Built-in Intelligent Video Analytics Pro (IVA Pro) enriches full situational awareness and triggers relevant alerts.

Functions

4 x 3-megapixel multi-directional overviews

Four independent 3-megapixel imagers with separate remote zoom and focus lenses capture very high-quality images with a total resolution of 4x3 megapixels.

Each of the four imagers can be set-up flexibly with 3-axis movement along a circular track. This enables surround coverage, capturing detailed images from every angle for comprehensive video coverage with four separate views from a single IP address.

HDR X - High Dynamic Range

HDR X technology combines unique sensor functionality and advanced algorithms. It captures high quality video of moving objects in scenes with a large dynamic range. It also allows HDR imaging at lower light levels in which traditional HDR technologies are non-functional. This is possible because the HDR X - Motion optimized mode takes two different readouts from one exposure to capture details in both the highlights and shadows of the scene, instead of blending multiple exposures like standard HDR technologies. Blending multiple exposures reduces sharpness and creates unwanted imaging artefacts on moving objects. HDR X resolves these issues, providing a crisp image with improved dynamic range.

Intelligent Video Analytics (IVA) Pro

The camera comes with IVA Pro Buildings and IVA Pro Perimeter. Other options can be licensed to optimize the camera analytics for enhanced surveillance capabilities tailored to the application.

The advanced analytics brings highly reliable deep-learning-based detection and tracking of persons and vehicles to scenes ranging from sterile zones to crowded and congested areas. Resilient against false triggers caused by challenging environmental conditions such as rain, wind-induced movements (such as trees), snow, hail, water reflections, shadows, and insects, the camera ensures accurate and reliable object detection, tracking, and classification. A smart set of alarm and counter rules ensures that you are promptly alerted when predefined alarms are triggered.

Configuration effort is made easy with the camera already classifying objects out of the box. With these advanced features, the camera provides comprehensive security coverage across a wide range of environments and scenarios.

Intelligent Video Analytics (IVA) Pro - optional licenses

With the introduction of IVA Pro Appearance, users can conduct forensic searches based on distinct characteristics, such as color of clothing, bags, hats, or other features, enabling a more precise search of individuals.

Additionally, the camera now features IVA Pro Personal Protective Equipment (PPE), designed to detect the proper use of personal protective equipment, which can reduce accident risk and promote health and safety in various environments.

IVA Pro Traffic can be licensed to optimize the camera analytics for ITS applications such as counting and classification, as well as Automatic Incident Detection, which are necessary for highway and urban infrastructure planning.

A single IVA Pro license covers all four camera imagers. Each camera imager operates independently. This allows different video analytics applications to run at the same time.

Auto-calibration

The camera offers auto-calibration by transforming 2D pixels into 3D real world measures, such as size, speed and geolocation of objects for tracking use cases. AI technology allows the camera to detect and analyze persons and vehicles in the scene to determine calibration parameters. Calibration efforts are now reduced to a single click, followed by the usual human verification. This reduces the calibration effort or time investment, ensuring optimal accuracy while keeping costs to a minimum.

Two-way audio and built-in microphone

Two-way audio allows the operator to communicate with visitors or intruders via an external audio line input and output. Alternatively, there is an integrated microphone to capture crisp and clear audio. By using the integrated or external microphone, audio detection can be used to

generate alarms to alert the security operator quicker and act more proactively. If required by local laws, the microphone can be disabled.

Intelligent streaming

Smart encoding capabilities, utilizing video analytics, reduce bandwidth consumption to extremely low levels. Only relevant information in the scene, such as motion or objects found through analytics, needs to be encoded. The camera is capable of quad streaming, allowing it to deliver independent and configurable streams for live viewing, recording, or remote monitoring via constrained bandwidths. Each of these streams can be adapted independently to deliver high-quality video, perfectly tailored to purpose, while reducing bit rate by up to 50% compared to a standard camera.

DORI coverage

DORI (Detect, Observe, Recognize, Identify) is a standard system (EN-62676-4) for defining the ability of a person viewing the video to distinguish persons or objects within a covered area. The maximum distance at which a camera/lens combination can meet these criteria is shown below:

3 MP camera with 3.2 - 8.1 mm lens

DORI	DORI definition	Distance	Horizontal width
Detection	25 pixels/m (8 pixels/ft)	32 m / 123 m (106 ft / 405 ft)	82 m (269 ft)
Observation	63 pixels/m (19 pixels/ft)	13 m / 49 m (42 ft / 161 ft)	33 m (107 ft)
Recognition	125 pixels/m (38 pixels/ft)	6 m / 25 m (21 ft / 81 ft)	16 m (54 ft)
Identification	250 pixels/m (76 pixels/ft)	3 m / 12 m (11 ft / 41 ft)	8 m (27 ft)

Data security

Security begins at production, where each device receives its unique cryptographic identity. From first boot, every layer protects data and ensures secure interactions through Secure Element 3.0 that provides enterprise-grade cybersecurity, strengthening system integrity from the inside out. Secure integration protocols protect connections with third-party systems, cloud platforms, and network infrastructure, while independent third-party certifications validate the Secure Product Lifecycle and supply chain practices. Systems remain protected, reliable, and aligned with modern regulatory standards.

Advanced edge recording

Advanced edge recording provides the reliable storage solution possible due to the combination of the following functionalities:

- Dual microSD cards that can be set up as either:
 - Mirrored, for redundant storage

- Failover, for extended service intervals
- Extended, for maximum retention time
- Industrial microSD card support allows for extreme lifetime
- Health monitoring on both microSD cards provides early service indication.

Cloud-based services

Using the Security Cloud, you can configure, troubleshoot, and update supported devices using the browser-based interface or standard tools.

With one click on Remote Portal, you can activate additional value-added services, such as Alarm Management in Cloud VMS, or VideoView+.

VideoView+ provides an easy-to-use and cost-effective solution to remotely connect to your device from anywhere, at any time. Leverage the power of the cloud to monitor your premises and get notified about any incident. VideoView+ also enables live streaming, locally and from remote, of up to 8 concurrent devices via Video Security Client, or of up to 4 concurrent devices on the Android and iOS app clients.

This includes replay and export functionality, as well as forensic search to define and perform search criteria for recorded events and support for Genetec Security Center SaaS, enabling direct-to-cloud video streaming.

Remote Portal

Remote Portal is a secure cloud service that enables easy online management of devices. It lets you configure, monitor and maintain the health of all connected sites and devices through the web portal or Configuration Manager - free of charge.

System integration and ONVIF conformance

The camera conforms to ONVIF Profiles S, G, M, and T, ensuring interoperability with network video products across manufacturers and integration with third-party ONVIF compliant systems. For detailed ONVIF specifications, refer to onvif.org.

Modular camera mounts and accessories

A full line of modular camera mounts and accessories are available that allow a consistent design across different platforms and a wide range of installation possibilities. Several dedicated accessories are available that seamlessly fit to the camera and expand the different installation options.

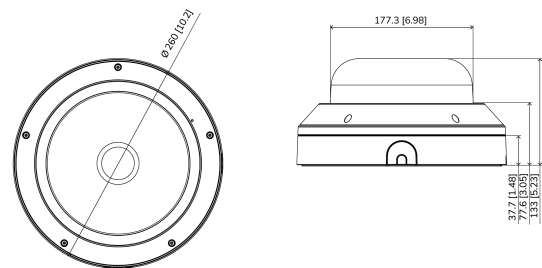
Regulatory information

Type	Standard
Emission	EN 55032 (Class A), EN 50121-4, FCC 47 CFR Part 15 (Class A), ICES-003 Issue 7 Class A, VCCI-CISPR 32:2016 Class A, AS/NZS CISPR 32
Immunity	EN 50121-4, EN 50130-4

Type	Standard
Environmental	EN 50130-5, Class IV, NEMA 2.1.5.1 STD2 (cover temperature test only), RoHS EU, 2011/65/EU EN IEC 63000:2018, WEEE EU, 2012/19/EU
Safety	EN 62368-1, IEC 62368-1, UL 62368-1
Corrosion resistance	IEC 60068-2-42, IEC 60068-2-52
Color representation	ITU-R BT.709-6
ONVIF conformance	EN 50132-5-2, EN 62676-2
Impact protection	IEC/EN 62262 (IK10)
Water / dust protection	EN 60529 (IP66) and UL50E (NEMA Type 4X)
IR lighting	IEC 62471
Marks	CE, FCC, UL, RCM, VCCI, China RoHS, WEEE
Compliance	Europe and Asia Pacific models: NDAA compliant North America and Latin America models: NDAA and TAA compliant

Region	Regulatory compliance/quality marks	
USA	UL 2900-2-3 CAP	4791462681-003 Cybersecurity Assurance Program
Global	IEC 62443-4-1	Industrial Cyber Security Capability
Europe	CE	
Global	IEC 62443	DK-174558-UL

Installation/configuration notes



Dimensions in mm (inch)

Parts included

Quantity	Component
1	FLEXIDOME multi 7100i IR camera
1	Mounting plate

Quantity	Component
1	RJ-45 punch-through aid
1	TR20 Allen key
1	2-pin power connector
1	8-pin Audio and I/O connector
3	Installer UX labels
1	Quick installation guide
1	Safety and security information

Technical specifications

Sensor

Total sensor pixels	3.10 MP approx.
Effective pixels (H x V)	2048 x 1536 (4:3)
Sensor type	1/2.8 inch CMOS; 2.0 µm

Sensitivity

Low light technology	starlight
Color (lx) (sensitivity measured according to IEC 62676 Part 5)	0.035 lx
Monochrome (lx) (sensitivity measured according to IEC 62676 Part 5)	0.003 lx

Dynamic range

WDR technology	HDR X
High Dynamic Range (HDR) (dB)	120 dB

Optical

Lens focal length (mm)	3.2 mm – 8.1 mm
Iris control	Fixed-iris
Horizontal field of view (°)	104° – 37°
Vertical field of view (°)	73° – 28°
Lens aperture (f/F)	F1.9 - F3.2
Zoom/focus control	Motorized

Night vision

IR function	On; Off; Auto
IR intensity	Manually adjustable; Automatic; 4 controllable zones

Built-in IR (m)	30 m
Built-in IR (ft)	98 ft
Wavelength (nm)	850 nm

Platform

Common Product Platform	CPP15
Memory (MB)	8192 MB RAM; 8192 MB Flash

Video streaming

Video compression	H.264 (ISO/IEC 14496-10); M-JPEG; H.265/HEVC
Sensor mode	30 fps, HDR X, 2,084 x 1,536 (3.1MP) 25 fps, HDR X, 2,084 x 1,536 (3.1MP) 30 fps, HDR, 2,084 x 1,536 (3.1MP) 25 fps, HDR, 2,084 x 1,536 (3.1MP)
Streaming	Multiple configurable streams in H.265; H.264 and M-JPEG; Configurable framerate and bandwidth; Intelligent Streaming
Frame rate (fps)	1 fps – 30 fps
Camera processing latency	<680 ms
GOP structure	IP
Video signal-to-noise ratio (dB)	>55 dB
Resolution	3.1MP (4:3), 2048 x 1536 to 0.3MP (4:3), QVGA (4:3) 320 x 240

Video functions

ALC	Mode (Standard, Fluorescent), Priority - dark vs. bright, Speed, Level, Maximum gain [dB]
Shutter modes	Automatic Electronic Shutter (AES); 1/15,000 max; Default shutter; Fixed shutter
Day/night modes	Auto (adjustable switch points); Color; Monochrome
Field of view adjustment	Zoom; Autofocus
Camera functionality	Mirror image; Rotation 90°; Rotation 180°; Rotation 270° including upright mode; Backlight compensation (BLC); Intelligent dynamic noise reduction; Contrast enhancement; Sharpness enhancement; Intelligent defog; Pixel counter; Tamper detection; Saturation; Brightness

Camera LED	Auto disable; Enable; Disable; Custom
White balance (K)	2,000 K – 10,000 K
White balance modes	Standard auto; Hold mode; Sodium lamp auto; Basic auto; Manual RGB
Number of privacy masks	8 independent areas per sensor, fully programmable
Display stamping	Name; Logo; Date/time; Alarm message
Scene modes	Standard; Sodium lighting; Vibrant; Low bitrate; Sports & gaming; Fast movement; Sensitivity boost; Dynamic backlight; Color only; LPR (IR required)
Positioning	Mounting height; Coordinates

Video content analysis

Analysis type	IVA Pro Buildings; IVA Pro Perimeter; Camera Trainer In a future release: IVA Pro Privacy
Alarm triggers	Any object; Object in field; Line crossing; Enter / leave field; Loitering; Follow route; Idle / removed object; Counting; Occupancy; Condition change; Similarity search; Objects stopping or starting to move
Object filters	Duration; Size; Aspect ratio; Speed; Direction; Color; Object classes
Tracking modes	Base tracking (2D); Perimeter tracking (2D); Perimeter tracking (3D); People tracking (3D); Museum mode (2D); Ship tracking (2D)
Calibration	3D Autocalibration
Number of possible alarm rules (simultaneously)	16 per imager
Additional functionalities	Tamper detection; Loud noises detection
Supported analytics	IVA Pro Traffic; IVA Pro Appearance; IVA Pro PPE In a future release: Intelligent Audio Analytics; Gunshot detection

Storage

Internal storage	5-s-pre-alarm-recording
Memory card slot	Dual micro SDHC; Dual micro SDXC; Dual micro SD card up to 2 TB

Dual micro SD-card slot configurations	Mirror (redundant storage); Failover (extended service interval); Extend (maximum retention time); Automatic Network Replenishment
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Inputs and outputs

Ethernet	RJ45
Number of USB ports	1 (USB 2.0 Type C, for use with wireless USB dongle for setup and commissioning, sold separately)
Alarm inputs	1 (short or DC 5 V activation)
Alarm outputs	1 (maximum: 40 VDC or 30 VAC, max. 0.5 A)
Built-in microphone	Digital MEMS microphone
Audio line in	0.6 Vrms max, 40 kOhm typical
Audio line out	1.0 Vrms at 10 kOhm typical
Surge protection	1 kV; 1 kA to ground (8/20 µs)

Audio

Compression and sampling rate	G.711 8 kHz; L16 16 kHz; AAC-LC 80kbps 16 kHz; AAC-LC 48kbps 16 kHz
Minimum signal-to-noise ratio (dB)	50 dB
Audio streaming	Full duplex; Half duplex

Network

Protocols / standards	IPv4; IPv6; UDP; RTP/RTCP; IGMP V2/V3; ICMP; ICMPv6; RTSP; FTP; ARP; DHCP; APIPA (Auto-IP, link local address); NTP (SNTP); SNMP (V1, MIBII); SNMP (V3, MIBII); 802.1x, EAP/TLS; DNS; DNSv6; SMTP; iSCSI; DiffServ (QoS); LLDP; SOAP; CHAP; Digest authentication; RTSPS; MQTT; SRTP; SCEP; HTTP/HTTPS; HSTST; DDNS (DynDNS.org); MQTTS; Syslog
Ethernet type	10/100/1000BASE-T; Auto-sensing; Full / half duplex
Conformity	ONVIF Profile S; ONVIF Profile G; ONVIF Profile T; ONVIF Profile M

Data security

Cryptographic coprocessor (SE)	RSA 4096 bit; 512-bit elliptic curves; AES/CBC 256 bit
Public Key Infrastructure (PKI)	X.509 certificates; SCEP; Device identity certificate (Root CA); Embedded firewall

Encryption	TLS 1.2; AES 256; AES 128; TLS 1.3
Network authentication	802.1x; EAP/TLS; CHAP; Digest authentication; Configurable session timeout
Local storage encryption	AES-XTS
Signed video framework	MD5; SHA-1; SHA-256; Checksum
Firmware protection	Signed firmware; Secure boot; Software sealing; SBOM (Software Bill of Materials); Cloud firmware check
Certified security standards	Common Criteria EAL6+ (Secure Element 3.0); FIPS 140-3 Level 3 (Secure Element 3.0)

Electrical

PoE input	PoE++ IEEE 802.3bt Type 3, Class 5 PoE++ and auxiliary power can be connected simultaneously for redundant operation
Input voltage (VAC)	24 VAC $\pm$ 10%
Input voltage (VDC)	24 VDC $\pm$ 10%
Power consumption PoE (W) (typical – maximum)	PoE+: 13.1W / 22.2W (Without IR, Heater) PoE++: 13.1W / 40W (With IR, Heater)
Power consumption VAC (VA) (typical – maximum)	24 VA
Power consumption VAC (W) (typical – maximum)	11W - 20.4W (Without IR, Heater) 11W - 41.7W (With IR, Heater)
Power consumption VDC (W) (typical – maximum)	11.5W - 20.4W (Without IR, Heater) 11.5W - 39.1W (With IR, Heater)

Mechanical

Material	Housing: Aluminum with waterproof connection area
Bubble material	Clear polycarbonate with anti-scratch coating
Pan range (°)	0° - 360°
Rotation Axis (Side to Side)	$\pm$ 45°
Tilt range (°)	-10° - 100°
Roll range (°)	0° - 352°
Dimensions (Ø x H) (mm)	260 mm x 133 mm
Dimensions (Ø x H) (in)	10.24 in x 5.24 in
Weight (kg)	3.5 kg

Weight (lb)	7.72 lb
Color (RAL)	RAL 9003 Signal white

Environmental

Operating temperature (°C)	-50 °C - 55 °C for continuous operation -34 °C - 74 °C according to NEMA TS 2-2003 (R2008), para. 2.1.5.1. using fig. 2.1 test profile
Operating temperature (°F)	-34° F - 74° F for continuous operation -30 °F - 165 °F according to NEMA TS 2-2003 (R2008), para. 2.1.5.1. using fig. 2.1 test profile
Storage temperature (°C)	-40 °C - 70 °C
Storage temperature (°F)	-40 °F - 158 °F
Cold start temperature (°C)	-20 °C
Cold start temperature (°F)	-4 °F
Operating relative humidity, non-condensing (%)	5% - 93%
Operating relative humidity, condensing (%)	5% - 100%
Storage relative humidity (%)	Up to 98%
Impact protection	IK10
IP rating	IP66
Degree of protection	NEMA type 4X
Country of origin	Europe and Asia Pacific model: Thailand North America and Latin America model: Taiwan

Ordering information

NDM-7712-AL Multi dome 4x3MP 3.2-8.1mm IP66 IR
12 MP multi-imager camera, four motorized zoom/focus lenses, 30 fps, IVA Pro Buildings, IVA Pro Perimeter, H.265, IK10, IP66, integrated IR up to 30m
NDAA and TAA compliant
Order number **NDM-7712-AL**

Accessories

NDA-7052-PIPW Pendant Interface Plate
Pendant interface plate with weather cap for FLEXIDOME multi 7100i and FLEXIDOME multi 7100i IR
Order number **NDA-7052-PIPW**

NDA-U-WMT Pendant wall mount
Universal wall mount for dome cameras, white
Order number **NDA-U-WMT**

NDA-U-WMP Wall mount plate

Back plate for universal wall mount, corner mount and pole mount, white, IP66

Order number **NDA-U-WMP**

NDA-U-PMT Pendant pipe mount, 12" (31cm)

Universal pipe mount for dome cameras, 31 cm, white

Order number **NDA-U-PMT**

NDA-U-PMTE Pendant pipe extension, 20" (50cm)

Extension for universal pipe mount, 50 cm, white

Order number **NDA-U-PMTE**

NDA-U-PMTS Pendant pipe mount, 4" (11 cm)

Universal pendant pipe mount for dome cameras, 11 cm (4"), white

Order number **NDA-U-PMTS**

NDA-U-PSMB Pendant wall/ceiling mount SMB

Surface mount box (SMB) for wall mount or pipe mount.

Order number **NDA-U-PSMB**

NDA-U-PMAS Pole mount adapter small

Pole mount adapter small

Universal pole mount adapter, white; small.

Order number **NDA-U-PMAS**

NDA-U-PMAL Pole mount adapter large

Universal pole mount adapter large, supported pole diameter 100-380 mm (4-15 in), white

Order number **NDA-U-PMAL**

NDA-U-RMT Pendant parapet mount

Universal roof mount for dome cameras, white, for outdoor usage

Order number **NDA-U-RMT**

NDA-U-CMT Corner mount adapter

Universal corner mount, white

Order number **NDA-U-CMT**

NDA-U-PA0 Surveillance cabinet 24VAC

Surveillance cabinet, 24 VAC input, 24 VAC output

Order number **NDA-U-PA0**

NDA-U-PA1 Surveillance cabinet 120VAC

Surveillance cabinet, 100 - 120 VAC 50/60 Hz input, 24 VAC output

Order number **NDA-U-PA1**

NDA-U-PA2 Surveillance cabinet 230VAC

Surveillance cabinet, 230 VAC input, 24 VAC output

Order number **NDA-U-PA2**

VG4-SFPCKT Ethernet to SFP interface kit

Ethernet media converter video transmitter/data receiver fiber optic kit

Order number **VG4-SFPCKT**

SFP-2 Fiber module, multimode, 1310nm, 2LC

SFP Fiber Optic Module, 2 km (1.2 miles), 2 LC connectors.

Multi-mode

1310 nm

Order number **SFP-2**

SFP-3 Fiber module, single-mode, 1310nm, 2LC

SFP Fiber Optic Module, 20 km (12.4 miles), 2 LC connectors.

Single-mode

1310 nm

Order number **SFP-3**

SFP-25 Fiber module, 1310/1550nm, 1SC

SFP Fiber Optic Module, 2 km (1.2 miles), 1 SC connector

Multi-mode

1310/1550 nm

Order number **SFP-25**

SFP-26 Fiber module, 1550/1310nm, 1SC

SFP Fiber Optic Module, 2 km (1.2 miles), 1 SC connector

Multi-mode

1550/1310 nm

Order number **SFP-26**

NDA-U-PMTG Pendant pipe mount, gang box

Universal pipe mount, compatible with gang box installation for fixed dome cameras only, white

Order number **NDA-U-PMTG**

NDA-U-WMTG Pendant wall mount, gang box

Universal wall mount, compatible with gang box installation for fixed dome cameras only, white

Order number **NDA-U-WMTG**

NPD-6001C Midspan, bt, 60W, indoor

Indoor midspan with Power-over-Ethernet for use with PoE-enabled cameras; 60 W, single-port, AC input

Order number **NPD-6001C**

MSD-064G IP SECURITY MICROSD CARD 64GB

64 GB industrial microSD card with health status monitoring

Order number **MSD-064G**

MSD-128G IP SECURITY MICROSD CARD 128GB

128 GB industrial microSD card with health status monitoring

Order number **MSD-128G**

MSD-256G IP SECURITY MICROSD CARD 256GB

256 GB industrial microSD card with health status monitoring

Order number **MSD-256G**

NCA-WLAN-EU Wireless installation dongle EU

Wireless installation dongle for wireless commissioning

Order number **NCA-WLAN-EU**

NCA-WLAN-NA Wireless installation dongle NA

Wireless installation dongle for wireless commissioning for North America

Order number **NCA-WLAN-NA**

Software Options**MVC-IVA-TRA IVA Pro Traffic**

Video analytics software based on deep neural network technology for traffic monitoring and Automatic Incident Detection.

Order number **MVC-IVA-TRA**

MVC-IVA-PPE IVA Pro PPE

Video analytics software based on deep neural network technology for detecting personal protective equipment.

Order number **MVC-IVA-PPE**

MVC-IVA-APC IVA Pro Appearance

Video analytics software based on deep neural network technology for detailed person appearance attributes allowing advanced forensic search.

Order number **MVC-IVA-APC**

MVC-IAA-GUN Gunshot Detector License, perpetual

Gunshot Detector License, perpetual

Order number **MVC-IAA-GUN**



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