



AI Plate Intelligence	Vari-Optic Flexibility	MT Active Deterrence	EN-Certified Build
On-edge deep learning: plates, 147 brands, 12 colours, 9 vehicle classes — no cloud required	4 optical variants from 2.7 mm to 32 mm for access lanes from 3 m to 20 m	Blue/red strobe plus custom audio on intrusion and loitering — stop events before they escalate	IP67 & IK10, CE-EMC/LVD/RED, -30 °C to +65 °C, integrated junction box

AI ANPR, engineered for European access control

Dedicated license plate recognition camera for access-control applications across residential, commercial and industrial sites. On-edge deep learning processes plates, vehicle class, brand and colour with no cloud dependency, and drives barriers directly through Wiegand output and relay I/O. Four optical variants and two illumination options cover every scenario, from single-lane gates to wide multi-lane yards.

FEATURES

- AI Plate & Vehicle Intelligence — on-edge deep learning identifies plates, vehicle class, 147 brands and 12 colours, including unlicensed vehicles
- ≥ 98% recognition rate on European plates, ≥ 96% on bidirectional flows, ≥ 99% capture rate in recommended setup
- Vari-Optic — four models: MT-PRC413W4-A/AN (2.7-12 mm, 80 km/h) for single-lane access, MT-PRC413W4-G/GN (8-32 mm, 120 km/h) for multi-lane gates up to 20 m
- MT Adaptive Illumination — dual 730 nm IR + warm light (A/G models) or 850 nm IR only (AN/GN models) with automatic intensity control
- MT Active Deterrence — blue/red strobe and user-defined audio on intrusion and loitering events
- Direct access-control integration — Wiegand SHA-1 26-bit, dual RS-485, 2 relay outputs (barrier-grade), 433/868 MHz remote
- Clean installation — junction box and bracket integrated in the housing, on-board commissioning LED, < 6 W standby consumption
- Industrial build — die-cast aluminium, IP67, IK10, -30 °C to +65 °C operating range
- On-edge storage up to 256 GB microSD, with 110,000-plate allowlist and blocklist
- EU compliance — CE-EMC, CE-LVD, CE-RED, FCC; privacy-first architecture compatible with GDPR requirements

MT-PRC413W4

TECHNICAL SPECIFICATIONS

Camera	
Image Sensor	1/1.8" CMOS
Max. Resolution	2688 × 1520 (4 MP)
ROM / RAM	4 GB / 1 GB
Scanning System	Progressive
Electronic Shutter	Auto / Manual 1/25 s – 1/100,000 s
S/N Ratio	> 56 dB
Min. Illumination (A/AN)	0.001 Lux @ F1.4 (Color) / 0.0002 Lux @ F1.4 (B/W) / 0 Lux (illuminator on)
Min. Illumination (G/GN)	0.001 Lux @ F1.6 (Color) / 0.0002 Lux @ F1.6 (B/W) / 0 Lux (illuminator on)
Max. Detection Speed	A / AN: 80 km/h G / GN: 120 km/h
Intelligent	
AI Plate & Vehicle Intelligence	Plate, unlicensed vehicles, vehicle type, brand and colour
Vehicle Brand	147 brand logos recognized
Vehicle Colour	12 colours: grey, black, white, silver, blue, green, purple, red, orange, pink, brown, yellow
Vehicle Type	9 classes: Large Bus, Heavy Truck, Medium Truck, Sedan, Van, Light Truck, Medium Bus, SUV, MPV / Pickup
Video Metadata	Displays intelligent frame, plate, and vehicle paths
Capture Rate	≥ 99% in recommended installation and lighting conditions
Recognition Rate	≥ 96% for positive and departing vehicles; ≥ 98% for European plates
Behaviour Analytics	Intrusion and loitering detection, up to 4 user-defined areas
Allowlist / Blocklist	110,000 plates each
ANPR Regions - Baseline	Europe, GCC, Russian-speaking regions, SADC, North America
ANPR Regions - Customizable	Asia-Pacific, Africa, Latin America (on request)
Capture Distance	A / AN: 3 – 8 m G / GN: 8 – 20 m
Detected Width	A / AN: 3 – 4 m G / GN: 6 – 8 m
Alarm Event	
Basic Event	Defocus, no storage card, storage card no space, storage card error, network disconnection, IP conflict, illegal access
MT Active Deterrence	Blue & red strobe with custom audio broadcasting
Alarm Linkage	Upload to FTP / memory card, notify monitoring centre, e-mail, alert output, snapshot, active deterrence
Power	
Power Supply	12 VDC 2 A and PoE 802.3at Type 2 Class 4 (44-57 V), 0.455 A to 0.351 A, max 20 W
Power Consumption	No lighting < 6 W; with lighting < 12 W; with strobe and red/blue alarm < 17 W
Remote Control	Yes — 433 MHz / 868 MHz, range 15 m (open, undisturbed environment)
Environment	
Operating Temperature	-30 °C to +65 °C (-22 °F to +149 °F)
Operating Humidity	10% – 90% (non-condensing)
Storage Temperature	-40 °C to +70 °C (-40 °F to +158 °F)
Storage Humidity	≤ 95% (non-condensing)
Protection	IP67; IK10

Lens	
Focal Length	A / AN: 2.7 mm – 12 mm G / GN: 8 mm – 32 mm
Max. Aperture	A / AN: F1.4 G / GN: F1.6
Lens Type	Motorized vari-focal
Field of View (A/AN)	H: 92° – 46.1° / V: 49° – 26.0° / D: 109° – 52.8°
Field of View (G/GN)	H: 39.9° – 15.1° / V: 21.8° – 8.5° / D: 46.6° – 17.4°
Focus Control	Auto, area focus, manual
Number of Lens	1
Iris Control	A / AN: DC-Iris G / GN: P-Iris
DORI (A/AN) W → T	Detect 60.4 → 128.7 m / Observe 24.2 → 51.5 m / Recognize 12.1 → 25.7 m / Identify 6.0 → 12.9 m
DORI (G/GN) W → T	Detect 160.0 → 406.9 m / Observe 64.0 → 162.8 m / Recognize 32.0 → 81.4 m / Identify 16.0 → 40.7 m
Video	
Video Compression	H.265; H.264H; H.264B; H.264M (default); MJPEG
Video Resolution	Main: 4M (2688×1520) / 1080p / 720p. Sub: 720p / 960H / D1 / CIF
Main Stream	PAL 2688×1520 / 1920×1080 / 1280×720 @ 25 fps NTSC @ 30 fps
Sub Stream	PAL 1280×720 / 960×576 / 704×576 / 352×288 @ 25 fps NTSC @ 30 fps
Video Bit Rate	H.264/H.265: 2,179 – 13,074 kbps; MJPEG: 6,537 – 39,223 kbps
Bit Rate Control	CBR; VBR
Adaptive Scene Optimization (SSA)	Yes
Gain Control	Manual; Auto
Noise Reduction	3D NR
Region of Interest (RoI)	Yes, 3 areas
Image Tampering Prevention	Verifiable watermark embedded in videos and images
Audio	
Audio Port	Yes
Built-in MIC	Yes; pick-up distance 3 m; sampling rate 48 kHz
Built-in Speaker	Yes; 2 W
Network	
Network Port	RJ-45 (10/100/1000 self-adaptive Ethernet)
Network Protocol	HTTP, HTTPS, 802.1x, TCP, ARP, RTSP, RTP, UDP, RTCP, SMTP, FTP, SFTP, DHCP, DNS, IPv4/v6, NTP, DDNS, SNMP, PPPoE
Interoperability	ONVIF (Profile S / G / T), CGI, ITSAPI, P2P
API / SDK	Yes / Yes
Management Software	ONVIF (Profile S/G/T), CGI, compatible VMS
Security	Username and password, MAC address filter, HTTPS, IEEE 802.1x, network access control
Browser	Plug-in: IE 9-11, Chrome ≤52, Firefox ≤42. No plug-in: Chrome ≥92
Certifications	
CE-EMC	Yes
CE-LVD	Yes
CE-RED	Yes
FCC	Yes

MT-PRC413W4

TECHNICAL SPECIFICATIONS

Structure	
Material	Die-cast aluminium body + technical plastic
Product Dimensions (L × W × H)	396.0 × 120.8 × 127.8 mm (15.59" × 4.76" × 5.03")
Packaging Dimensions	445.0 × 238.0 × 229.0 mm (17.52" × 9.37" × 9.02")
Net Weight	2.3 kg (5.07 lb)
Gross Weight	3.2 kg (7.05 lb)
Illuminator	
Illuminator Type (A / G)	Dual illuminators: 730 nm IR + warm light
Illuminator Type (AN / GN)	IR only (850 nm)
Illuminator Number	4
Illuminator On/Off Control	Auto / Manual
MT Adaptive Illumination	Automatic light intensity adjustment based on scene brightness; warm light auto-adjusts by time of day
Illumination Distance (A/AN)	ANPR: 10 m / Video monitoring: 30 m
Illumination Distance (G/GN)	ANPR: 20 m / Video monitoring: 60 m
Port	
Audio Output	1 channel (RCA)
Alarm Input	2, optocoupler input (wet node on-off, 5 V)
Alarm Output	2, relay output (2 A @ 30 VDC / 0.5 A @ 125 VAC) — barrier-grade
RS-485	2 (half duplex, transparent, DHRS, Push Data through Serial Port)
Wiegand	1 channel, SHA-1 26-bit
Reset Button	Yes

Typical Applications	
Residential Access	Single-lane gates and private driveways, 3-8 m capture distance — MT-PRC413W4-A or AN
Condominium & Office Parking	Mid-distance entry lanes with allowlist up to 110,000 plates — MT-PRC413W4-G or GN
Industrial & Logistics Yards	Wide gates with MT Active Deterrence against loitering and intrusion — MT-PRC413W4-G or GN
Municipal ZTL & Traffic Lanes	Unattended traffic enforcement with ≥ 98% European plate recognition rate
Image	
Image Encoding Format	JPEG
Image Setting	Brightness, contrast, saturation, gamma, sharpness, gain, white balance
Day / Night	IR filter: Colour / B-W / Auto
WDR	140 dB
HLC	Yes
BLC	Yes
White Balance	Auto, Regional Custom, Manual, Outdoor, Natural, Street Lamp
Digital Detail Enhancement (DDE)	Yes
OSD Overlay	Time, address (channel position), lane (number/direction), plate (number and colour), vehicle (speed, colour, type)
Performance	
Max. Passed Vehicles	10,000
Max. Connections	10
Storage	Built-in microSD slot, up to 256 GB (Kingston / MTechnology / SanDisk)

DIMENSIONS

