

# ITC413-PM4D-Z1

4MP Smart ANPR Camera



- The device is delivered in modules, making it easy to be installed into a wide variety of machines.
- High-performance CMOS image sensor and processor that supports continuously extracting metadata 24/7.
- With its built-in 850 nm IR illuminator, the device automatically adjusts the switch based on the transition between day and night, effectively reducing light pollution and power consumption.
- The RS-485 port is used to connect to peripherals, such as turnstiles and radars, to obtain their operating statuses in real time, and perform remote operations and device health management.
- Easily adapts to scenes through its motorized vari-focal lens.

## Functions

### Smart Illumination

The software can control the illuminator by turning it on and off and adjusting its brightness level based on the environment, reducing light pollution and power consumption.

### Easy Installation

Easy to install and commission, the camera has an LED illuminator and motorized vari-focal lens embedded in its structure.

### Impressive Performance

The high-performance CPU processor extracts and analyzes information on motor and non-motor vehicles in real time, providing valuable information on their features. This information is useful for effective decision making.



## Scene

Suitable for shopping malls, hospitals, schools, communities, office buildings and stations.

## Technical Specification

### Camera

Image Sensor	1/1.8" CMOS
Pixel	4 MP
Image Resolution	2688 (H) × 1520 (V) (This resolution does not account for the OSD black border.)
Electronic Shutter Speed	Auto/Manual 1/25 s–1/10,000 s
Max. Detection Speed	60 km/h
Min. Illumination	0.001 Lux@F1.4 (Color, 30 IRE); 0.0002 Lux@F1.4 (B/W, 30 IRE) ; 0 Lux (Illuminator on)
ROM	4 GB
RAM	1 GB
S/N Ratio	≥56 dB
Scanning System	Progressive scanning

### Lens

Focal Length	2.7 mm–12 mm
Field of View	H: 92°–46.1°; V: 49°–26.0°; D: 109°–52.8°
Focus Control	Auto, area focus, manual
Number of Lens	1
Lens Type	Motorized vari-focal
Max. Aperture	1.4
Iris Control	Auto

### Illuminator

Illuminator Number	6 (IR LED)
Illuminator Brightness Adjustment	Auto, manual
Illuminator On/Off Control	Auto, manual
Illumination Distance	6.8 m (22.31 ft)
Smart Illumination	The camera automatically turns on and off according to the brightness of the environment.
Infrared Wavelength	850 nm

### Video

Video Resolution	4MP (2688 × 1520); 1080p (1920 × 1080); 720p (1280 × 720)
Video Frame Rate	PAL: Main stream (2688 × 1520@25 fps, 1920 × 1080@25 fps, 1280 × 720@25 fps), sub stream (960 × 576@25 fps, 704 × 576@25 fps )
Video Compression	H.265;H.264B;H.264M;H.264H;MJPEG
Video Bit Rate	H.264B: 2,179 kbps–13,074 kbps; H.264M: 2,179 kbps–13,074 kbps; H.264H: 2,179 kbps–13,074 kbps; H.265: 2,179kbps–13,074 kbps; MJPEG: 6,537 kbps–39,223 kbps
Scene Self-adaptation (SSA)	Yes

Gain Control	Manual; Auto
Noise Reduction	3D NR
Region of Interest (RoI)	Yes, 3
Image Tampering Prevention	Yes. Watermarks can be added to videos and images. The watermark can also be verified.
Privacy Masking	Yes, 8
Bit Rate Control	VBR;CBR

### Network

Network Protocol	HTTP; Https; 802.1x; TCP; ARP; RTSP; RTP; UDP; RTCP; SMTP; FTP; DHCP; DNS; IPv4/v6; NTP; SFTP; DDNS; SNMP; PPPoE
API	Yes
SDK	Yes
Interoperability	ONVIF (Profile S/Profile T/Profile M); CGI; ITSAPI; P2P
Management Software	DSS Express and DSS Pro
Security Mode	Username and password; MAC address; HTTPS; IEEE 802.1x; network access control
Browser	With plug-ins, it supports IE 9, 10 and 11, Chrome 52 and earlier versions, and Firefox 42 and earlier versions. Without plug-ins, it supports Chrome 92 and later versions

### Image

Image Encoding Format	JPEG
Image Setting	Brightness; contrast; saturation; gamma; sharpness; gain; white balance
Day/Night	Features IR filter and 3 modes: color, black and white and auto.
WDR	120 dB
HLC	Yes
BLC	Yes
White Balance	Auto;Manual;Regional Custom;Outdoor;Natural;Street Lamp
Digital Detail Enhancement (DDE)	Yes
OSD Overlay	Supports overlay of time; address (position of channel), lane (number/direction), plate (number and color), vehicle (color, type)

### Audio

Audio Port	Yes
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### Port

Audio Output	1 channel (3.5mm JACK port)
Network Port	RJ-45 (10/100 Mbps Ethernet port)
Storage	TF card slot and inline storage connection
Alarm Input	2, optocoupler input (wet node on-off value: 5 V) history
Alarm Output	2, relay output (2 A, 30 VDC/0.5 A 125 VAC), which can connect to devices such as barriers history

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RS-485	There are two RS-485 ports. They have half-duplex capabilities, support transparent data transmission and serial port push, and comply with the DHRS protocol.
Reset Button	Yes
Wiegand	1, SHA-1 26 bits

## Performance

Maximum Number of Passed Vehicles	10000
Max. Number of Connections	20

## Function

Storage	Built-in 1 TF card port; TF card (up to 256 GB)
Restricted List/Trusted List	Allowlist: 110,000 Blocklist: 110,000
Basic Event	Triggers alarms when the storage card is missing or has no space, and when there is a storage card error, network disconnection, IP conflict, and the camera defocuses.
Capture Distance	2.5 m–6 m (8.20 ft–19.69 ft)
Detected Width	3 m–4 m (9.84 ft–13.12 ft)
Automatic Network Replenishment (ANR)	Yes, platform/FTP

## Intelligence

AI Recognition	Recognizes the type, logo, color and plates of vehicles. It also recognizes vehicles that do not have plates.
Video Metadata	Displays the intelligent frame, plate and vehicle paths.
Vehicle Brand	Recognizes 147 vehicle logos.
Vehicle Color	Recognizes 12 colors: Grey, black, white, silver, blue, green, purple, red, orange, pink, brown, and yellow.
Vehicle Type Recognition	Recognizes 9 types of vehicles: large bus, heavy truck, medium truck, sedan, van, light truck, medium bus, SUV, MPV, pickup.

Country and Region Supported by ANPR	Baseline support : 10 options (87 countries) General: Supports universal characters GCC (U.A.E., Saudi Arabia, Morocco, Oman, Iraq, Egypt, Jordan, Qatar, Kuwait, Bahrain, Lebanon) South Africa: South Africa, Tanzania, Mozambique, Zambia, Uganda, Equatorial Guinea, Mauritius, Kenya South Asia Region (India Region) : India, Maldives Europe (Netherlands, France, Germany, Britain, Italy, Poland, Belgium, Bulgaria, Serbia, Slovakia, Spain, Denmark, Turkey, Israel, Czech Republic, Bosnia and Herzegovina, Switzerland, Austria, Hungary, Romania, Lithuania, Latvia, Sweden, Estonia, Portugal, Greece, Slovenia, Luxembourg, Palestine, Lebanon, Ireland, Finland, Norway, Croatia, North Macedonia) South American Economies Collection (Uruguay, Paraguay, Brazil, Argentina, Chile, Colombia, Peru, Ecuador, Guyana, Bolivia ) Mexico and other countries: Mexico, Costa Rica, Curacao, Guatemala Eurasian Collection (Russia, Ukraine, Kazakhstan, Kyrgyzstan, Uzbekistan, Tajikistan, Moldova, Lithuania, Latvia, Georgia, Azerbaijan, Turkmenistan) North America (United States, Canada) North Africa Region Collection: Tunisia, Morocco, Algeria, Libya
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Country and Region Supported by ANPR	The baseline algorithm is supported for the following 19 countries: Republic of Korea, Indonesia, Singapore, Cambodia, Australia, Thailand, Bassett, Nigeria, Pakistan, Viet Nam, Mongolia, Bangladesh, Myanmar, Philippines, Laos, Iraq, Japan, Maldives, Nepal
Capture Rate	When used according to the recommended installation requirements and lighting conditions, the vehicle capture rate ≥ 99%.
Recognition Rate	When used according to the recommended installation requirements and lighting conditions, the recognition rate for vehicles departing in the assigned direction ≥ 96%, and the recognition rate for European vehicle plates ≥ 98%.
Parking Space Management	Yes
IVS (Perimeter Protection)	Supports intrusion and loitering detection, and up to 3 areas can be configured.
Illegal Parking Detection	Yes

## General

Power Supply	12 VDC, PoE
Power Consumption	24 W (max)
Material	Metal and plastic
Product Dimensions	190.0 mm × 110.0 mm × 120.0 mm (7.48" × 4.33" × 4.72") (L × W × H)
Packaging Dimensions	257.0 mm × 188.0 mm × 187.0 mm (10.12" × 7.40" × 7.36") (L × W × H)
Net Weight	0.5 kg (1.10 lb)
Gross Weight	0.8 kg (1.76 lb)
Storage Humidity	≤95% (RH), non-condensing
Storage Temperature	–40 °C to +65 °C (–40 °F to +149 °F)
Operating Temperature	–30 °C to +65 °C (–22 °F to +149 °F)
Operating Humidity	10%–90% (RH), non-condensing

## Ordering Information

Type	Model	Description
Smart ANPR Camera	ITC413-PM4D-Z1	4MP Smart ANPR Camera

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## Dimensions (mm[inch])

