

2MP IR License Plate Recognition Camera

10 mm to 50 mm Long-range Access Camera



- 1/1.8-in. 2MP GS CMOS Sensor
- License Plate Recognition Distance up to 30 m (98.43 ft)
- Capture and Recognize License Plates from Vehicles Traveling up to 80 kph (49 mph)
- H.265 and H.264 Dual Codec
- 1080p at 30 fps Maximum Resolution
- 10 mm to 50 mm Motorized Vari-focal Lens
- Maximum IR LED Distance 25 m (82 ft)
- 12 VDC, 1 A Power Output
- IP67 Ingress Protection
- Mounting Bracket Included
- Five-year Warranty*

System Overview

The ITC237-PW6M-IRLZF1050-B is a license plate recognition camera with a recording resolution of 1920×1080 (1080p) at 30 frames per second with a 1/1.8-inSony GS-CMOS sensor. The camera includes a 10 mm to 50 mm motorized vari-focal lens that lets the installer adjust the zoom angle of the picture, providing long-range video. The camera recognizes license plates of vehicles traveling up to 80 kph (49 mph). The camera can be mounted between 8 m and 30 m (26.25 ft and 98.43 ft) from where the vehicles will be traveling and captures and recognizes plates from a single lane. The ITC237-PW6M-IRLZF1050-B coupled with a Dahua NVR or DSS Video Management System offers a complete traffic management and parking solution.

Functions

License Plate Recognition

The License Plate Recognition camera automatically captures vehicle license plate images and recognizes license plate numbers and letters. During playback, an operator can perform a license plate search by Time and Date to view thumbnail images of all plates captured during the specified time period or can enter a license plate number to search for vehicles recorded with that plate. License plate recognition technology offers effective entrance/exit management, traffic security, and parking lot monitoring.

High Efficiency Video Coding (H.265)

The H.265 (ITU-T VCEG) video compression standard offers double the data compression ratio at the same level of video quality, or substantially improved video quality at the same bit rate, as compared to older video compression technologies. H.265 offers such impressive compression by expanding the pattern comparison and difference-coding, improving motion vector prediction and motion region merging, and incorporating an additional filtering step called sample-adaptive offset filtering.

Cybersecurity

Dahua network cameras are equipped with a series of key cybersecurity technologies including: security authentication and authorization, access control, trusted protection, encrypted transmission, and encrypted storage. These technologies improve the camera's ability to prevent malicious access and to protect data.

Environmental

With a temperature range of -30 °C to +65 °C (-22 °F to +149 °F), the camera is designed for extreme temperature environments. Subjected to rigorous dust and water immersion tests and certified to the IP67 Ingress Protection rating makes it suitable for demanding outdoor applications.



Camera 1.5 m. Pate exc. Max Final color of the person o	Technical Specificati	on	N	etwork			
Image Second 1.14 m. 1.16 m. CALCOS Metropology	Camera		Eti	hernet		RJ-45 (100/1000 Base-T)	
Metrophe Billing Method	Image Sensor	1/1.8-in. 2MP GS CMOS		Protocol		IPv4/IPv6, HTTP, TCP/IP, UDP, NTP, DHCP, DNS	
Section Solitor Sol				·			
File control (_		·	
Recommend Reco							
R On/Off Control Auto, Ori, Off R LEDs Six (6), adjustable brightness Cybersecurity College Currier Cybersecurity College Currier Cybersecurity Cybersecu							
REEDS		, ,	M			DSS	
Cybersecurity	·						
Lens Type	IR LEDs	Six (6), adjustable brightness	Cv	hersecurity		Lockout, Security Logs, IP/MAC Filtering, Generating	
Focal Length 10 mm to 50 mm	Lens			20.3000		802.1x, Trusted Boot, Trusted Execution, Trusted	
Max. Aperture Fi.3 Safety IEC 6338-12034 (Second Edition) Angle of View Horizontal: 46.60° to 10.62° ventical: 46.60° to 10.62° ventical	Lens Type	Module				Upgrade	
Angle of View	Focal Length	10 mm to 50 mm	Ce	ertificatio	ns		
Angle of View Vertical 40 60° to 10 30° Diagonal 22 70° to 5.30° Polycol 22 70°	Max. Aperture	F1.3	Sa	Safety		IEC 62368-1:2014 (Second Edition)	
Iris Auto Iris, F1.3 to F2.3 Interface EN 50130-4:2011+A1:2014 An 68 11 to 10	-	Vertical:40.60° to 9.30° Diagonal: 22.70° to 5.30°				EN 55032:2015, Class B EN61000-3-2:2014 EN 61000-3-3:2013	
Focus Control Motorized, Automatic Interface	Iris	Auto Iris. F1.3 to F2.3					
Focus Width Range approximately one (1) lane approximately one (1)		·	In	Interface			
Video Two Inputs, Optocoupler (switch quantity) Video Encoding H.265, H.264M, H.264B, M.IPEG RS48S One (1) Port Conc (1) Port Image Encoding JPEG Audio Input Reserved for future use Streaming Capability One (1) Stream Input One (1) Channel, Optocoupler Resolution 1080p (1920 x 1080), 720p (1280 x 720) Input One (1) Channel, Optocoupler Frame Rate 1080p at 30 fps Electrical Bit Rate Control CBR, VBR Power Supply 12 VDC, 24 VAC, or PoE (IEEE802.3af Class O) Bit Rate H.264B: 20 Kbps to 32768 Kbps Power Consumption < 20 W	Focus Width Range		ВМ	BNC		Reserved for future use	
Note	Video	approximately one (1) lane	1/0	1/0		Two Inputs, Optocoupler (switch quantity)	
Input Reserved for future use Output Reserved for future use Output Reserved for future use Output Two (2) Relay Channel, Optocoupler Alarm Input One (1) Channel, Optocoupler Alarm Output Two (2) Relay Channels Electrical Electrical Electrical Electrical Bit Rate Control CBR, VBR H, 264B; 20 Kbps to 32768 Kbps H, 265B; 20 Kbp		HI 200 HI 204M HI 204H HI 204D MIDEO	RS	RS485		One (1) Port	
Streaming Capability One (1) Stream Resolution 1080p (1920 x 1080), 720p (1280 x 720) Frame Rate 1080p at 30 fps Electrical Bit Rate Control CBR, VBR Power Supply 12 VDC, 24 VAC, or POE (IEEE802.3af Class 0) Power Consumption 22 VDC Power Output 12 VDC ± 10%, ≤ 1 A Power Output 12 VDC ± 10%, ≤ 1 A Power Output 12 VDC ± 10%, ≤ 1 A Power Output 12 VDC ± 10%, ≤ 1 A Power Output 12 VDC ± 10%, ≤ 1 A Power Output 12 VDC ± 10%, ≤ 1 A Power Output 12 VDC ± 10%, ≤ 1 A Power Output 13 VDC ± 10%, ≤ 1 A Power Output 14 VDC ± 10%, ≤ 1 A Power Output 15 VDC ± 10%, ≤ 1 A Power Output 16 VDC ± 10%, ≤ 1 A Power Output 17 VDC ± 10%, ≤ 1 A Power Output 18 VDC ± 10%, ≤ 1 A Power Output 19 VDC ± 10%, ≤ 1 A Power Output 19 VDC ± 10%, ≤ 1 A Power Output 10% to 90% RH (non-condensing) Power Output 10% to 90% RH (non-conden	_		Δı	ıdio	Input	Reserved for future use	
Resolution 1080p (1920 x 1080), 720p (1280 x 720) Alarm Output Two (2) Relay Channels Frame Rate 1080p at 30 fps Electrical Bit Rate Control CBR, VBR Power Supply 12 VDC, 24 VAC, or PoE (IEEE802.3af Class 0) Bit Rate H.2648: 20 Kbps to 32768 Kbps H.2648: 20 Kbps to 32768 Kbps H.2648: 20 Kbps to 32768 Kbps H.2658: 20 Kbps to 32768 Kbps H.2658: 20 Kbps to 32768 Kbps MJPEG: 59 Kbps to 65536 Kbps MJPEG: 59 Kbps to 65536 Kbps MJPEG: 59 Kbps to 65536 Kbps Power Output 12 VDC ± 10%, ≤ 1 A Day/Night Auto (ICR), Color, B/W Operating Temperature -30° C to +65° C (-22° F to +149° F) 10% to 90% RH (non-condensing) White Balance Auto, Outdoor, Manual, Part White Balance, Natural Street Lamp Storage Temperature -30° C to +65° C (-22° F to +149° F) Exposure Mode Full-Auto, Customized Auto, Customized Ingress Protection IP67 Casing Metal and Plastic Casing Metal and Plastic Camera with 515.21 mm x 124.73 mm x 105.73 mm (14.58 in. x 4.91 in. x 4.16 in.) Noise Reduction 3DNR Net Weight Net Weight 17.0 kg (3.75 lb)	Image Encoding	JPEG	7.0		Output	Reserved for future use	
Resolution 1080p (1920 x 1080), 720p (1280 x 720) Output Two (2) Relay Channels Frame Rate 1080p at 30 fps Electrical Bit Rate Control CBR, VBR Power Supply 12 VDC, 24 VAC, or PoE (IEEE802.3af Class 0) Bit Rate H.264B: 20 Kbps to 32768 Kbps H.264H: 20 Kbps to 32768 Kbps H.265H: 20 Kbps to 32768 Kbps H.265: 95 Kbps to 65536 Kbps MJPEG: 59	Streaming Capability	One (1) Stream	Δ1:	arm	Input	One (1) Channel, Optocoupler	
Bit Rate Control CBR, VBR H.264B: 20 Kbps to 32768 Kbps H.264M: 20 Kbps to 32768 Kbps H.264M: 20 Kbps to 32768 Kbps H.265: 20 Kbps to 32768 Kbps MJPEG: 59 Kbps to 65536 Kbps MJPEG: 59 Kbp	Resolution	1080p (1920 x 1080), 720p (1280 x 720)	All	arm	Output	Two (2) Relay Channels	
H. 264B: 20 Kbps to 32768 Kbps H. 264H: 20 Kbps to 32768 Kbps H. 265: 20 Kbps to 32768 Kbps H. 265: 20 Kbps to 32768 Kbps MJPEG: 59 Kbps to 65536 Kbps White Balance White Balance Auto, Outdoor, Manual, Part White Balance, Natural Street Lamp Edge Enhancement Supported Exposure Mode Full-Auto, Customized Auto, Customized Gain Control Automatic Noise Reduction Automatic Dimensions Camera J70.46 mm x 124.73 mm x 105.73 mm (14.58 in. x 4.91 in. x 4.16 in.) Camera with Bracket Zozera with Bracket Net Weight 1.70 kg (3.75 lb)	Frame Rate	1080p at 30 fps	El	Electrical			
Bit Rate H.264M: 20 Kbps to 32768 Kbps H.264H: 20 Kbps to 32768 Kbps H.265: 20 Kbps to 32768 Kbps MPEG: 59 Kbps to 65536 Kbps Coperating Temperature -30° C to +65° C (−22° F to +149° F) -30° C to +6	Bit Rate Control	CBR, VBR	Po	Power Supply		12 VDC, 24 VAC, or PoE (IEEE802.3af Class 0)	
H.264H: 20 Kbps to 32768 Kbps H.265: 20 Kbps to 32768 Kbps MJPEG: 59 Kbps to 65536 Kbps Day/Night Auto (ICR), Color, B/W Wide Dynamic Range 96 dB White Balance Auto, Outdoor, Manual, Part White Balance, Natural Street Lamp Edge Enhancement Supported Exposure Mode Full-Auto, Customized Auto, Customized Gain Control Automatic Noise Reduction 3DNR Power Output 12 VDC± 10%, ≤ 1 A Environmental 10% to 90% RH (non-condensing) Storage Temperature -30° C to +65° C (−22° F to +149° F) 10% to 90% RH (non-condensing) Storage Temperature -30° C to +65° C (−22° F to +149° F) 10% to 90% RH (non-condensing) Storage Temperature 1p67 Construction Casing Metal and Plastic 370.46 mm x 124.73 mm x 105.73 mm (14.58 in. x 4.91 in. x 4.16 in.) Camera with Bracket 515.21 mm x 124.73 mm x 105.73 mm (20.28 in. x 4.91 in. x 4.16 in.) Net Weight 1.70 kg (3.75 lb)			Po	Power Consumption		< 20 W	
Day/Night Auto (ICR), Color, B/W Environmental Wide Dynamic Range 96 dB Operating Temperature -30° C to +65° C (-22° F to +149° F) 10% to 90% RH (non-condensing) White Balance Auto, Outdoor, Manual, Part White Balance, Natural Street Lamp Ingress Protection IP67 Edge Enhancement Supported Construction Exposure Mode Full-Auto, Customized Auto, Customized Casing Metal and Plastic Gain Control Automatic Automatic Noise Reduction 3DNR Camera 370.46 mm x 124.73 mm x 105.73 mm (14.58 in. x 4.91 in. x 4.16 in.) Camera with Bracket 515.21 mm x 124.73 mm x 105.73 mm (20.28 in. x 4.91 in. x 4.16 in.) Net Weight 1.70 kg (3.75 lb)	Bit Rate	H.264H: 20 Kbps to 32768 Kbps	Po	Power Output		12 VDC ± 10%, ≤ 1 A	
Wide Dynamic Range 96 dB Storage Temperature Auto, Outdoor, Manual, Part White Balance, Natural Street Lamp Edge Enhancement Supported Exposure Mode Full-Auto, Customized Auto, Customized Gain Control Automatic Noise Reduction Automatic Dimensions Camera with Bracket Cancera with Bracket Construction Camera with Bracket Camera with Bracket Construction		· · · · · · · · · · · · · · · · · · ·	Er	Environmental			
Wide Dynamic Range 96 dB White Balance Auto, Outdoor, Manual, Part White Balance, Natural Street Lamp Edge Enhancement Supported Exposure Mode Full-Auto, Customized Auto, Customized Gain Control Automatic Noise Reduction 3DNR Camera Dimensions Camera with Bracket Canorial Camera with Camera with Canorial Canorial Camera with Canorial Camera with Canorial Canorial Canorial Camera with Canorial	Day/Night	Auto (ICR), Color, B/W	Op	Operating Temperature		· ·	
White Balance Auto, Outdoor, Manual, Part White Balance, Natural Street Lamp Edge Enhancement Supported Exposure Mode Full-Auto, Customized Auto, Customized Gain Control Automatic Noise Reduction Automatic Dimensions Camera Camera Auto, Outdoor, Manual, Part White Balance, Natural Street Lamp Ingress Protection Construction Casing Metal and Plastic Automax 124.73 mm x 105.73 mm (14.58 in. x 4.91 in. x 4.16 in.) Camera with Bracket S15.21 mm x 124.73 mm x 105.73 mm (20.28 in. x 4.91 in. x 4.16 in.) Net Weight Net Weight 1.70 kg (3.75 lb)	Wide Dynamic Range						
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Exposure Mode Full-Auto, Customized Auto, Customized Gain Control Automatic Noise Reduction Automatic Dimensions Camera Camera with Bracket S15.21 mm x 124.73 mm x 105.73 mm (14.58 in. x 4.91 in. x 4.16 in.) Net Weight 1.70 kg (3.75 lb)	Edge Enhancement	Supported	·	C			
Gain Control Automatic Noise Reduction 3DNR Camera 370.46 mm x 124.73 mm x 105.73 mm (14.58 in. x 4.91 in. x 4.16 in.) Camera with Bracket 515.21 mm x 124.73 mm x 105.73 mm (20.28 in. x 4.91 in. x 4.16 in.) Net Weight 1.70 kg (3.75 lb)	Exposure Mode	Full-Auto, Customized Auto, Customized					
Noise Reduction 3DNR Dimensions Camera (14.58 in. x 4.91 in. x 4.16 in.) Camera with Bracket (20.28 in. x 4.91 in. x 4.16 in.) Net Weight 1.70 kg (3.75 lb)	Gain Control	Automatic	Ca				
Camera with Bracket 515.21 mm x 124.73 mm x 105.73 mm (20.28 in. x 4.91 in. x 4.16 in.) Net Weight 1.70 kg (3.75 lb)	Noise Reduction	3DNR	Di	Dimensions	Camera		
			31				
Gross Weight 2.50 kg (5.51 lb)			Ne	et Weight		1.70 kg (3.75 lb)	
			Gross Weight			2.50 kg (5.51 lb)	

Installation

Wall or Ceiling with Included Bracket

License Plate Recognition | ITC237-PW6M-IRLZF1050-B

Performance				
Trigger Mode	Video Detection I/O Coil Video Detection and I/O Coil			
Shutter	Single			
Image Tampering	Video/Picture Watermark			
Alarm Event	No Storage Card Inadequate Storage Space Storage Card Error Network Disconnect IP Address Conflict Illegal Access			
Security Mode	Authorized Username and Password MAC Address Binding HTTPS Encryption IEEE 802.1x Network Access Control			
On-screen Display Overlay	Time Plate (number and color)			
Automatic Network Replenishment (ANR)	Support			
Intelligence				
Vehicle Registration	Captures license plate images and extracts the numbers and letters			
Intelligent Tracking	Displays vehicle plate and vehicle path			

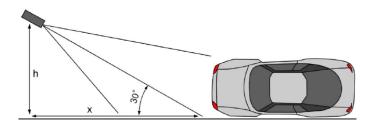
Installation Distances

Camera Height (h)	Snapshot Distance (x)	Lane Width	Vehicle Speed, max
Side Installation			
1.2 m (6.56 ft)	4 m to 6 m (13.12 ft ± 19.69 ft)	3.5 m (11. 48 ft)	80 kph (49 mph)

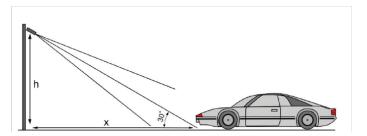
Distance to License Plate	Minimum/Maximum: 8 m to 30 m (26.25 ft to 98.43 ft) Optimal: 4 m to 6 m (13.12 ft to 19.69 ft)
Horizontal/Vertical Angles	< 30°
Inclination Angle	<5°

Camera Placement

Horizontal Direction



Vertical Direction



In both the vertical and the horizontal placement, the angle between the camera lens and the farther lane border must be less than 30°. Ensure the snapshot distance (x) of the camera is greater than 1.7 times the height (h) of the camera ($x \ge 1.7 \times h$) for optimal license plate images.

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Ordering Information				
Туре	Part Number	Description		
2MP LPR Camera	ITC237-PW6M-IRLZF1050-B	2MP IR License Plate Recognition Camera, Motorized Vari-focal Lens, with mounting bracket		
Accessories, Optional	DH-PFA143	Outdoor Security Junction Box		
	PFA150	Pole Mount		

