

# 2 MP IR License Plate Recognition Camera

10 mm to 50 mm Long-range Access Camera



- 1/1.8-in. 2 MP 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  $1920 \times 1080$  (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 surveillance, 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.

#### 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.



Technical Specification	on	Network			
Camera		Ethernet		RJ-45 (100/1000 Base-T)	
Image Sensor	1/1.8-in. 2 MP GS CMOS	Protocol		IPv4/IPv6, HTTP, TCP/IP, UDP, NTP, DHCP, DNS	
Effective Pixels	1920(H) x 1080(V)	Interoperabil	ty	ONVIF, CGI	
Scanning System	Rolling Shutter	Streaming Me	ethod	Unicast, Multicast	
Electronic Shutter Speed	1/50 s to 1/10000 s	Maximum Us	er Access	20 Users	
IR Distance	25.0 m (82.02 ft)	Edge Storage		Micro SD Card Slot, 64 GB maximum	
IR On/Off Control	Auto, On, Off	Web Viewer		IE	
IR LEDs	Six (6), adjustable brightness	Management	Software	DSS	
Lens		Certification	Certifications		
Lens Type	Module	Safety		IEC 62368-1:2014 (Second Edition)	
Focal Length	10 mm to 50 mm			47 CFR FCC Part 15 SubpartB, Class B EN 55032:2015, Class B	
Max. Aperture	F1.3	Electromagne	tic Compatibility	EN61000-3-2:2014 EN 61000-3-3:2013	
Angle of View	Horizontal: 46.60° to 10.62° Vertical:40.60° to 9.30° Diagonal: 22.70° to 5.30°	(EMC)		EN 55024:2010+A1:2015 EN55035:2017 EN 50130-4:2011+A1:2014	
Optical Zoom	5x	Interface	Interface		
Iris	Auto Iris, F1.3 to F2.3	BNC		Reserved for future use	
Focus Control	Motorized, Automatic	I/O		Two Inputs, Optocoupler (switch quantity)	
rocus control	3.50 m (11. 48 ft),	RS485		One (1) Port	
Focus Width Range	approximately one (1) lane		Input	Reserved for future use	
Video		Audio	Output	Reserved for future use	
Video Encoding	H.265, H.264M, H.264H, H.264B, MJPEG	A I =	Input	One (1) Channel, Optocoupler	
Image Encoding	JPEG	Alarm	Output	Two (2) Relay Channels	
Streaming Capability	One (1) Stream	Electrical	Electrical		
Resolution	1080p (1920 x 1080), 720p (1280 x 720)	Power Supply		12 VDC, 24 VAC, or PoE (IEEE802.3af Class 0)	
Frame Rate	1080p at 30 fps	Power Consu	mption	< 20 W	
Bit Rate Control	CBR, VBR	Power Outpu	t	12 VDC ± 10%, ≤ 1 A	
bit nate control	H.264B: 20 Kbps to 32768 Kbps	Environme	ental		
Bit Rate	H.264M: 20 Kbps to 32768 Kbps		mperature	−30° C to +65° C (−22° F to +149° F) 10% to 90% RH (non-condensing)	
- 60.1	MJPEG: 59 Kbps to 65536 Kbps	Storage Temp	erature	-30° C to +65° C (-22° F to +149° F)	
Day/Night	Auto (ICR), Color, B/W	Ingress Prote	ction	IP67	
Wide Dynamic Range	96 dB	Constructi	on		
White Balance	Auto, Outdoor, Manual, Part White Balance, Natural Street Lamp	Casing		Metal and Plastic	
Edge Enhancement	Supported	Dimensions	Camera	370.46 mm x 124.73 mm x 105.73 mm	
Exposure Mode	Full-Auto, Customized Auto, Customized	Dimensions		(14.58 in. x 4.91 in. x 4.16 in.)	
Gain Control	Automatic		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.)	
Noise Reduction	3DNR	Net 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		

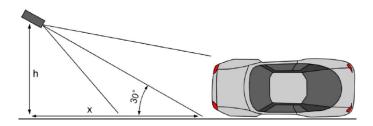
#### Installation Distances

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)

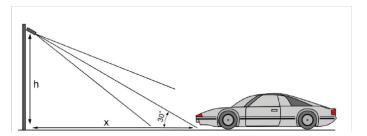
Distance to License Plate	Minimum/Maximum: 8 m to 30 m (26.25 ft to 98.43 ft) Optimal: 4 m to 6 m (13.12 ft to 19.69 ft)
Horizontal/Vertical Angles	< 30°
Inclination Angle	<5°

#### **Camera Placement**

Horizontal Direction



#### Vertical Direction



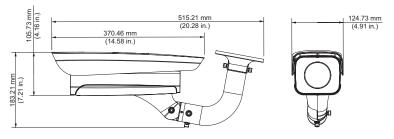
In both the vertical and the horizontal placement, the angle between the camera lens and the farther lane border must be less than 30°. Ensure the snapshot distance (x) of the camera is greater than 1.7 times the height (h) of the camera ( $x \ge 1.7 \times h$ ) for optimal license plate images.

# License Plate Recognition | ITC237-PW6M-IRLZF1050-B

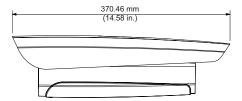
Ordering Information				
Туре	Part Number	Description		
2 MP LRC Camera	ITC237-PW6M-IRLZF1050-B	2 MP IR License Plate Recognition Camera, Motorized Vari-focal Lens, with mounting bracket		

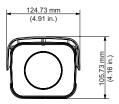
### Dimensions (mm/in.)

#### Camera with Bracket



#### Camera Only





### Installation

