

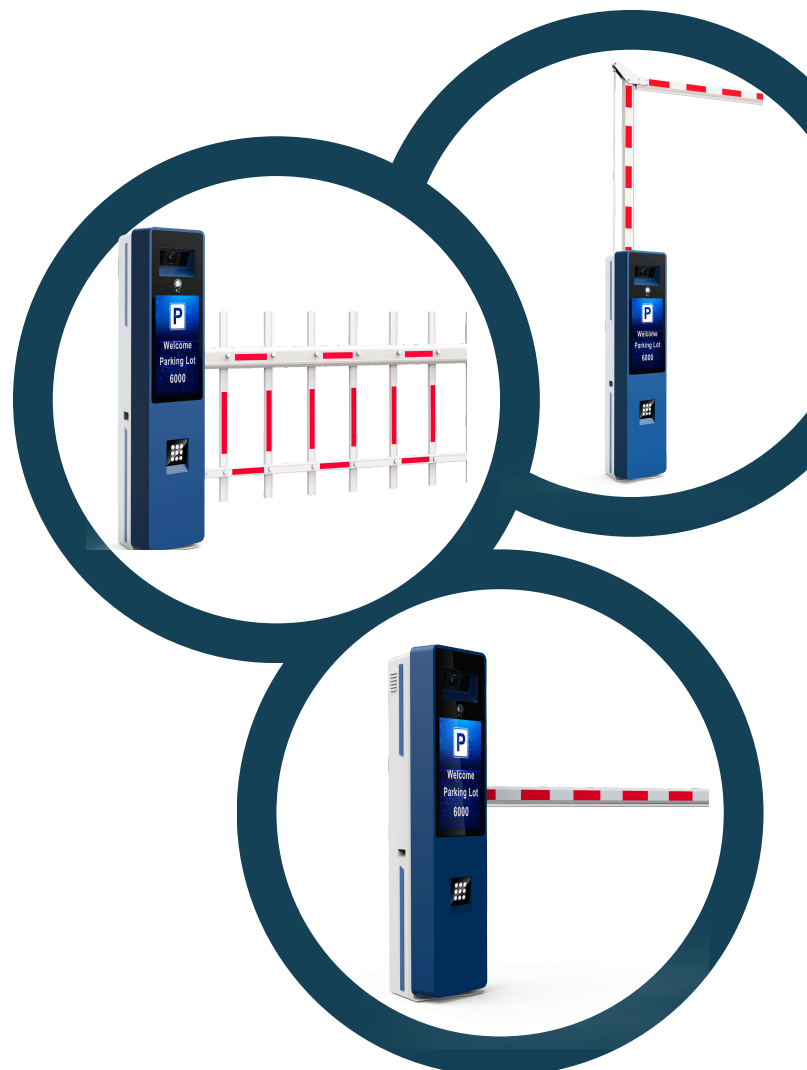
Orbility® SPARK All-in-One Entrance & Exit Manager

Introduction

DS-TMC407-EH is a multi-functional all-in-one entrance and exit manager. The device is integrated with fast-speed barriergate, smart capture camera, supplement light, display warning, voice prompt guidance, emergency call, remote two-way audio. The high integration design and all-in-one maintenance of the device make it easy to install, debug, and use. It is highly intelligent, and provides high recognition rate and various settings. The 3 types of boom poles (straight boom pole, curved boom pole, and fence boom pole) have novel appearances, and are sturdy and durable. The device is widely used in community, shopping mall, school, hospital, airport, gas station, 4S automotive dealership, government, etc. to capture and recognize the entering and exiting of vehicles.

Key Feature

- **Highly integrated:** The device is integrated with a fast-speed barrier gate (straight boom pole/curved boom pole/fence boom pole), smart capture camera, supplement light, LCD display, help button, voice prompt, and two-way audio. The all-in-one structure brings simple wiring and convenient debugging.
- **Quick pass:** The device is integrated with gear barriergate, which features in high driving efficiency and stable performance. The boom pole can rise in high speed and fall in low speed to achieve a quick pass.
- **Anti-vehicle following mode:** Supports anti-vehicle following mode via video and radar/loop. The boom pole can keep rising in a vehicle queue scenario to solve the congestion.
- **High definition:** 4 MP HD camera with max. 2688×1520 resolution and 25 fps frame rate. High quality imaging with 1/3" progressive scan CMOS. 0.022 lux low illumination with clearer imaging at night.



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Key Feature

- **Convenient debugging:** 3.1 to 6 mm motor-driven varifocal lens, and supports focus auto-adjustment. The device is convenient to debug, and can be applied to more scenarios.
- **LCD:** A 21.5-inch LCD can show QR codes for vehicles without license plates to scan to enter and exit, and it can also play images, videos, and advertisements.
- **High-quality supplement light:** Embedded with 9 bright LED lights, the device has smart supplement light technology, which supports supplement light control according to time and brightness, and satisfies the requirements of different scenarios.
- **Two-way audio:** Supports pressing help button to realize real-time two-way audio with center and remote booth, which helps to quickly solve customer issues at entrance and exit.

Available Model

Model	Description
DS-TMC407-EHL (LCD) (3 m)	Straight boom pole, left direction
DS-TMC407-EHL (LCD) (4 m)	Straight boom pole, left direction
DS-TMC407-EHL (LCD) (2 + 2 m)	Curved boom pole, left direction
DS-TMC407-EHL (LCD) (3 m)	Fence boom pole, left direction
DS-TMC407-EHL (LCD) (4 m)	Fence boom pole, left direction
DS-TMC407-EHR (LCD) (3 m)	Straight boom pole, right direction
DS-TMC407-EHR (LCD) (4 m)	Straight boom pole, right direction
DS-TMC407-EHR (LCD) (2 + 2 m)	Curved boom pole, right direction
DS-TMC407-EHR (LCD) (3 m)	Fence boom pole, right direction
DS-TMC407-EHR (LCD) (4 m)	Fence boom pole, right direction

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Typical Application

1

ENTRANCE AND EXIT

All-in-One Entrance &
Exit Manager



2

BOOTH

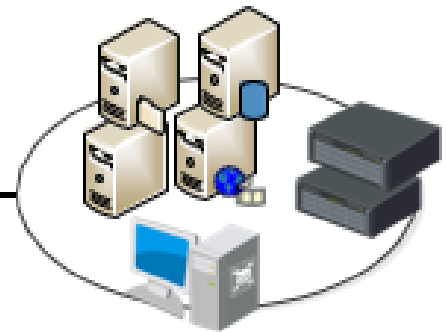
Entrance and Exit
Control Terminal



3

MANAGEMENT CENTER

Central Platform



Specification

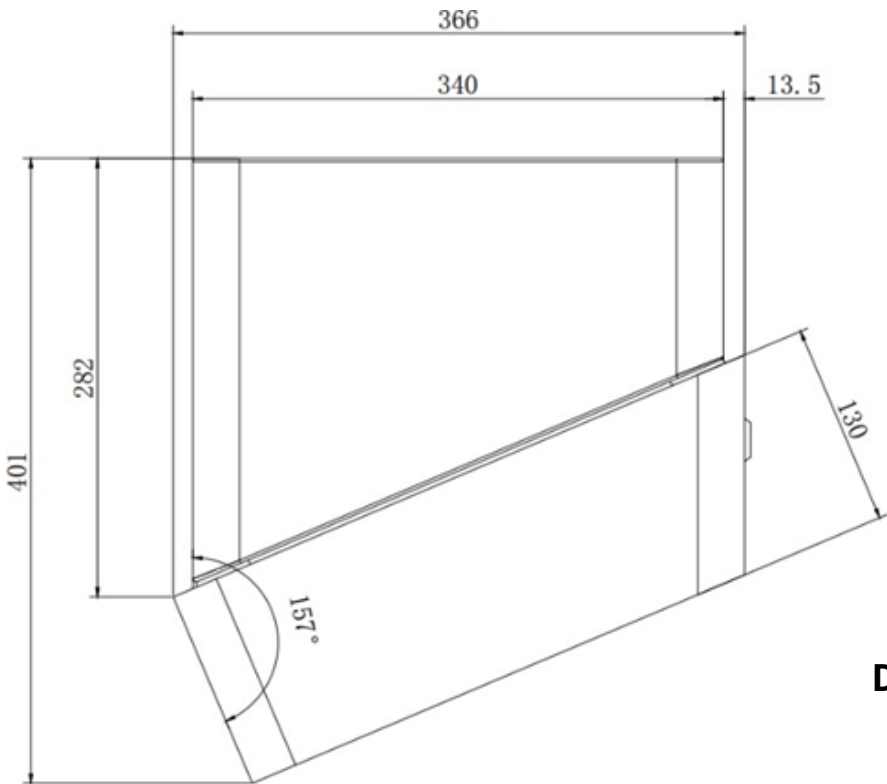
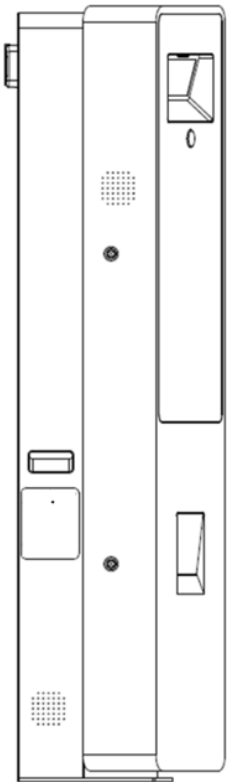
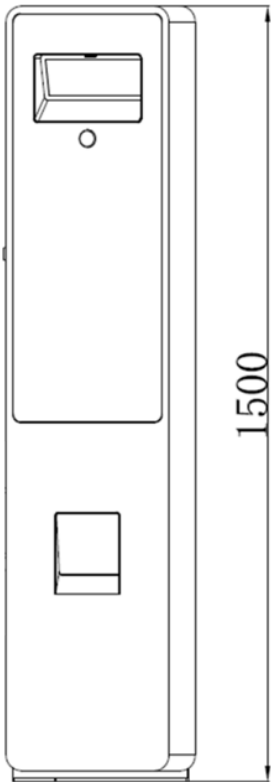
Model	DS-TMC407-EH		
General			
Power Supply	220 V, 50 Hz		
Consumption	350 W, 220 VAC		
Working Temperature	-30 °C to 70 °C (-22 °F to 158 °F)		
Working Humidity	90% or less (non-condensing)		
Weight	95 kg (209.4 lb)		
Ingress Protection	IP54		
Barrier Gate			
Type	Straight boom pole	Curved boom pole	Fence boom pole
Max. Boom Pole	3/4 m	2 + 2 m	3/4 m
Rising Speed	0.9 s	1.2 s	2.5 s
Falling Speed	4 s	4 s	6 s
Boom Pole Direction	Left/right direction		
Design Life	5,000,000		
Remote Control	≤ 30 m		
Running Noise	≤ 65 dB (A)		
Material Thickness	2 mm		
Material	Aluminum profile		
Surface Protection	Anti-UV and electrostatic spraying		
Manual Iris	Supported		
IR Cut Filter	Supported		
Frame Rate	25 fps @ (2688 × 1520)		
Image Settings	Saturation, brightness, contrast, white balance, AGC, and 3D noise		
Storage	Built-in TF card		
Protocol	TCP/IP, HTTP, DHCP, DNS, RTP, RTSP, NTP, FTP picture upload		
Network Security	Heartbeat, password protection, NTP		

Capture	
Resolution	4 MP (2688 × 1520) CMOS
Image Sensor	1/3" Progressive Scan CMOS
Min. Illumination	Color: 0.022 Lux @ (F2.0, AGC ON) B/W: 0.011 Lux @ (F2.0, AGC ON)
Shutter Speed	1/30 s to 1/100,000 s
Lens Type	3.1 to 6 mm varifocal lens, motor-driven lens
Manual Iris	Supported
IR Cut Filter	Supported
Frame Rate	25 fps @ (2688 × 1520)
Image Settings	Saturation, brightness, contrast, white balance, AGC, and 3D noise reduction can be adjusted via the web browser.
Storage	Built-in TF card
Protocol	TCP/IP, HTTP, DHCP, DNS, RTP, RTSP, NTP, FTP picture upload
Network Security	Heartbeat, password protection, NTP
Picture Format	JPEG with configurable quality
Smart Recognition	ANPR, vehicle type recognition, vehicle logo recognition, sub-brand recognition
Communication Interface	2 RJ45 10M/100M self-adaptive Ethernet interfaces
Serial Port	1 built-in RS-485 serial port, 1 built-in RS-232 serial port
Triggered Input	3-ch triggered/alarm inputs
Relay Output	2-ch relay outputs, supporting rising/falling of barrier gate boom pole
Supplement Light	
Supplement Light Control	Control according to brightness or time
LED Light Bead Number	9
Color Temperature	3000 K
LCD (optional)	
Dimension	21.5 inch
Resolution	1080p
Max. Brightness	1500 cd/m²
Speaker & Pickup	
Speaker & Pickup	Built-in speaker and pickup, with emergency call button

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Dimension

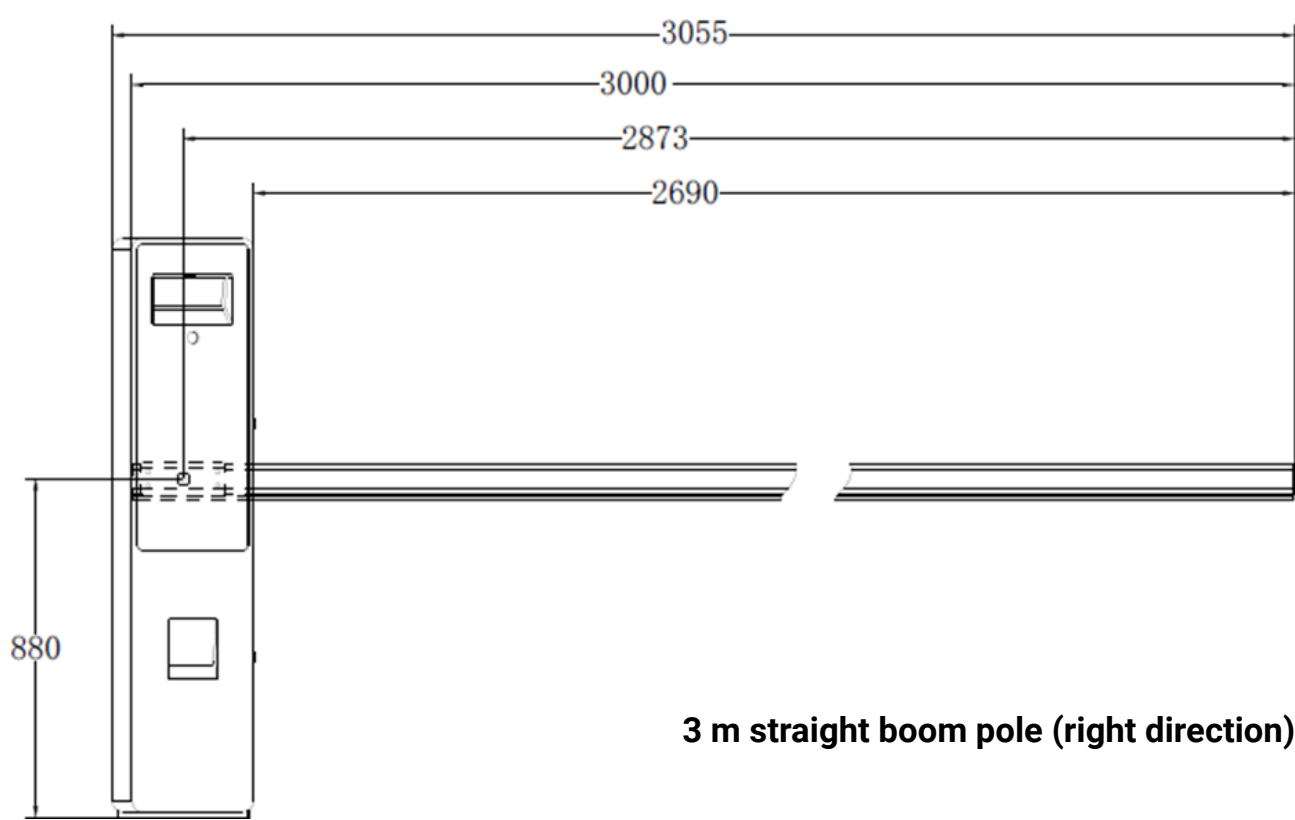
Host Dimension



Different views of the host

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Straight Boom Pole



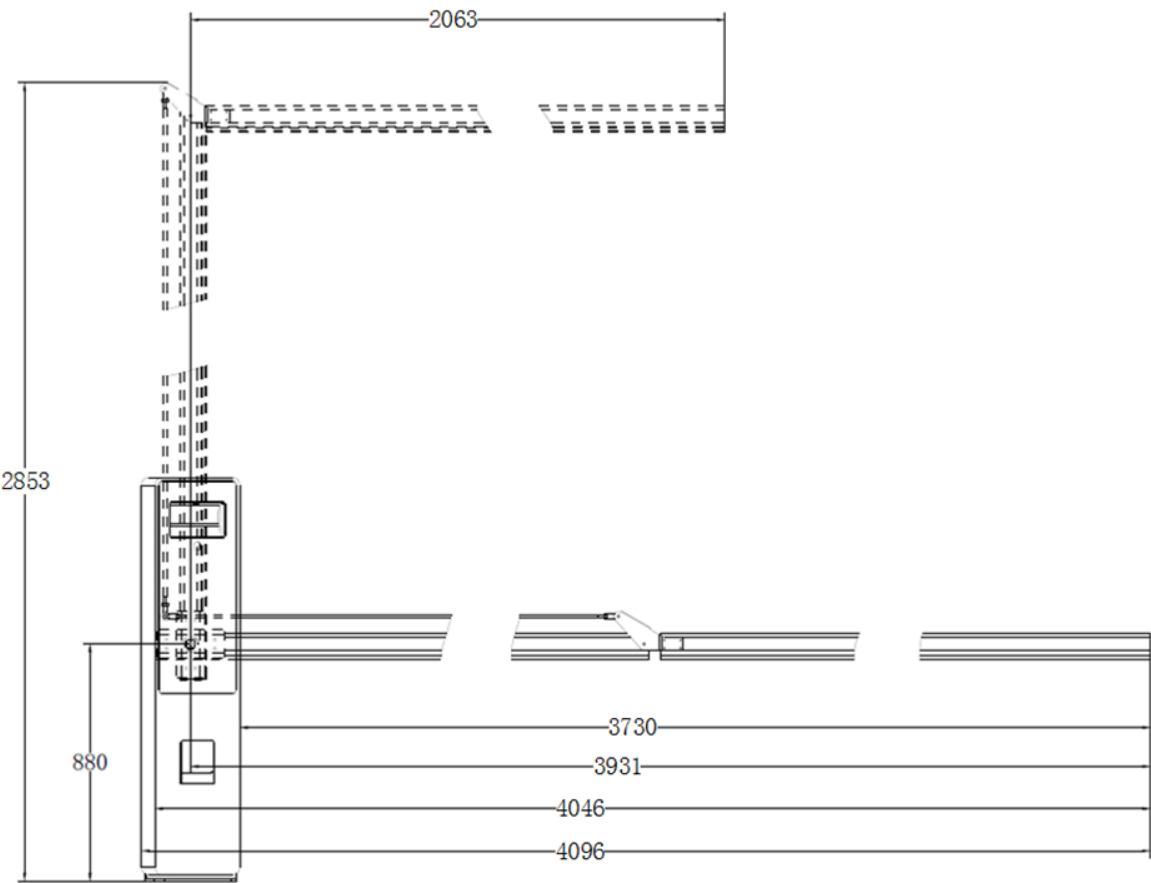
3 m straight boom pole (right direction)

Straight boom pole length	From the boom pole edge to the host right (mm)	From the boom pole edge to the center of the supporting bracket (mm)	From the boom pole edge to the host left (vehicle passing width)
3 m	3055	2873	2690
4 m	4055	3873	3690

*The left boom pole is symmetric, and the dimension is the same.

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Curved Boom Pole



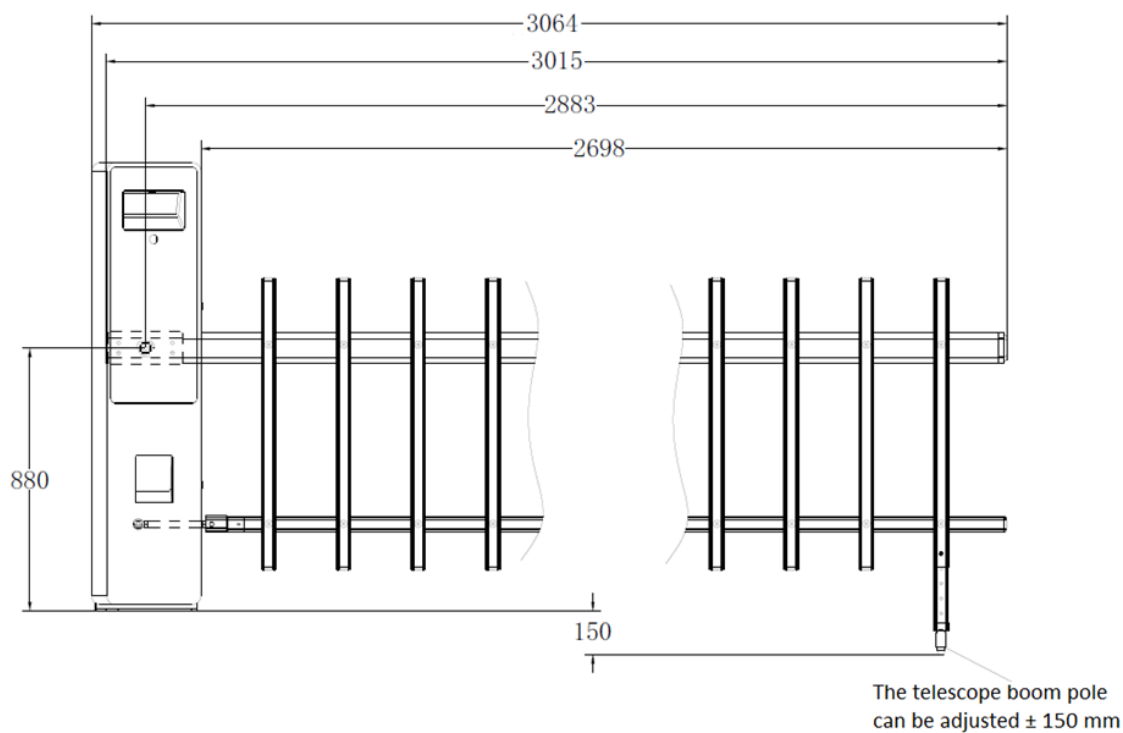
2 + 2 m curved boom pole (rightdirection)

Boom pole length	From the boom pole edge to the host left (vehicle passing width)	From the boom pole edge to the center of the supporting bracket (mm)	Length of the whole boom pole (mm)	From the boom pole edge to the host right (mm)	From the top to the bottom (mm)	Driven boom pole length (mm)
2 + 2 m curved boom pole	3730	3931	4046	4096	2853	2063

*The left boom pole is symmetric, and the dimension is the same.

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Fence Boom Pole



3 m fence boom pole (right direction)

	From the boom pole edge to the host right (mm)	Length of the fence boom pole (mm)	From the boom pole edge to the center of the supporting bracket (mm)	From the boom pole edge to the host left (vehicle passing width)
3 m	3064	3015	2883	2698
4 m	4064	4015	3883	3698

*The left boom pole is symmetric, and the dimension is the same.