ENTRY & EXIT LANES · AI LPR · POE

LPR Laneway Camera

An AI license plate recognition camera on a yellow steel post, one or two per lane, at entry and exit. Monthly parkers and prepaid reservations open the gate by plate. Visitors take a ticket that is linked to their plate. If a plate isn't read, RFID cards, QR codes and tickets work as normal. One network cable powers and connects each camera.

1 or 2
Cameras per lane, front and/or rear

1 cable
PoE power + data, 300 ft (90 m) max

IP67 · IK10
–40 to 140 °F



Built for the parking lane

Enter and exit by plate

The Entry or Exit BOXX checks the plate against credentials and reservations from CloudEASE and opens the gate.

A backup at every lane

If a plate isn't read, credential holders use their RFID card; QR codes and tickets work as normal.

Visitors exit by plate too

At exit the plate is matched to the visitor's ticket and the fee shows on the Exit BOXX.

Day and night, outdoors

Built-in infrared. IP67 and IK10, rated –40 to 140 °F. PoE: no 120 VAC at the post.

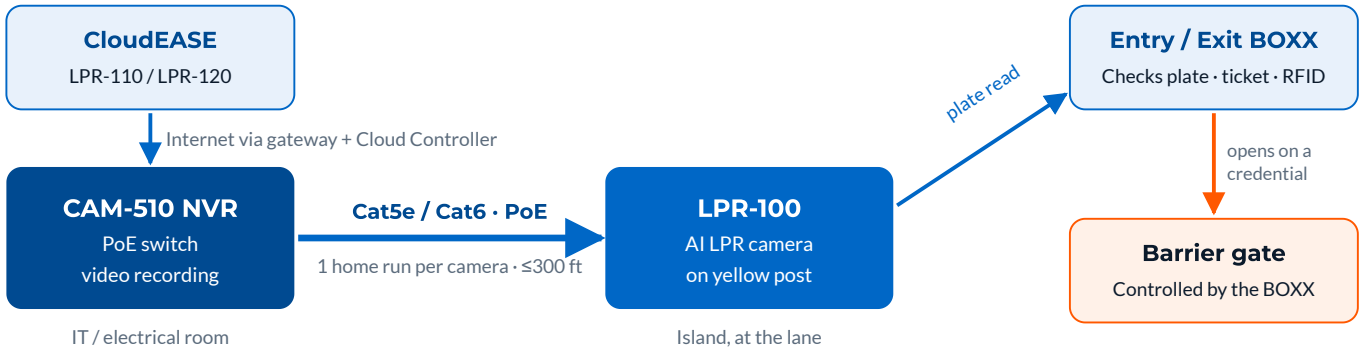
System components

Part	What it includes	Where it goes
LPR-100	LPR laneway system: AI license plate recognition bullet camera on a yellow steel post. One or two per lane, front and/or rear, at entry and exit.	Island, facing the approaching vehicle
LPR-110	LPR software: plate lists, sessions and pay by plate in CloudEASE. See the LPR Software sheet.	CloudEASE
LPR-120	LPR software hosting, prepaid annually.	Cloud
CAM-510	Network video recorder (NVR), required, with hard drive and PoE switch. Same local network as the camera.	IT or electrical room
Backup	Ticket, QR code or RFID credential at each LPR lane, from the Entry BOXX, Exit BOXX or access control unit. VoIP intercom optional.	At the lane

Settings and data

- **Plate reads** are checked at the Entry or Exit BOXX and logged in CloudEASE.
- **Plate images** are reviewed in CloudEASE.
- **Retention** is set by the owner, in CloudEASE and on the NVR.
- **Privacy:** see the LPR Data and Privacy guide.

Power and network, per lane



Power

- **At the post: no 120 VAC.** The camera is powered over Ethernet (IEEE 802.3af), 10.6 W maximum; allow 15.4 W per switch port.
- **Alternative, by the electrician:** where PoE isn't available, a Class 2 12 VDC ±10% supply, 1 A minimum.
- **NVR and switch:** power in the IT or electrical room. Battery backup recommended.

Network (LAN)

- **One home run per camera:** Cat5e minimum, Cat6 recommended, 300 ft (90 m) maximum.
- **Outdoor runs:** outdoor-rated cable in sealed conduit to the post base.
- **Same LAN:** cameras, NVR and lane equipment on the parking LAN.
- **Internet:** through the Parking BOXX gateway. See the Cloud Controller and Parking Network sheet.

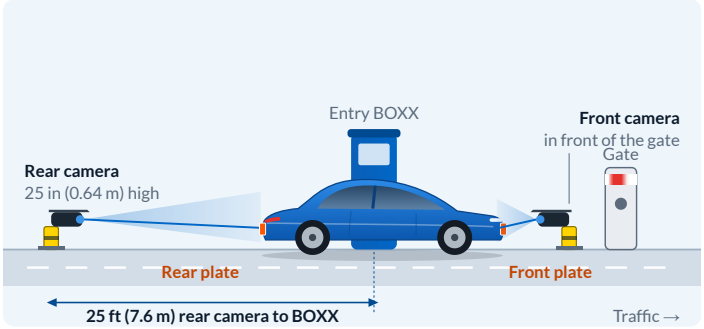
Coordination checklist

Trade	Provide
Concrete	Island or pad at each post location, ready for the post's base plate anchors.
Low voltage / IT	One Cat5e/Cat6 home run per camera, 300 ft (90 m) maximum, to a PoE port on the NVR's switch. Space for the NVR.
Electrical	Conduit stub-up at each post base for the network cable. Power for the NVR and switch. No circuit is needed at the post.
Site lighting	Even lighting on the plate area. Keep bright sky and oncoming headlights out of the camera's view.
Signage	A sign at each LPR lane telling drivers to take a ticket or use their card if the gate doesn't open.
Network / IT security	Site internet to the Parking BOXX gateway. Set the plate image option and retention days to match the owner's privacy policy.

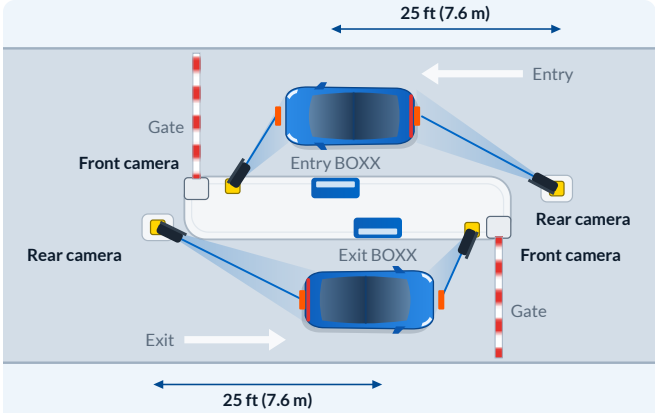
Specification language: Provide Parking BOXX LPR-100 LPR laneway system(s), one or two per controlled entry and exit lane, front and/or rear, where shown: AI license plate recognition bullet camera, 4 MP, motorized 2.8–12 mm varifocal lens, built-in infrared, installed to read plates at 6.6–16.4 ft (2–5 m) and rated to 49 ft (15 m) and 37 mph (60 km/h) maximum, IP67 and IK10 metal housing, operating −40 to 140 °F, powered by PoE (IEEE 802.3af) or 12 VDC, on a yellow steel post, cameras 25 in (0.64 m) above the roadway. Provide LPR-110 software with LPR-120 hosting and a CAM-510 network video recorder. Connect each camera by one Cat5e/Cat6 cable, 300 ft (90 m) maximum. Provide a ticket, QR code or RFID backup at every LPR lane.

Placing the LPR camera

Side elevation



Plan view



Front camera in front of the gate;
rear camera 25 ft before the Entry or Exit BOXX.

Placement

- **Front camera:** in front of the gate, facing back toward the vehicle at the Entry or Exit BOXX.
- **Distance:** 6.6–16.4 ft (2–5 m) from the camera to where the plate is read.
- **Height:** cameras 25 in (0.64 m) above the roadway, near plate height.
- **Rear camera:** 25 ft (7.6 m) before the Entry or Exit BOXX, facing the rear plate of the vehicle at the BOXX.

Image requirements

- **Angle:** turned 0–30° toward the lane, tilted down 0–30°.
- **Clear view:** nothing between the camera and the plate, including gate arms, signs and landscaping.
- **Light:** even light on the plate; no sky, sun or headlights in the frame.
- **Commissioning:** Parking BOXX sets the read zone and focus.

Camera specifications

Camera	AI license plate recognition bullet, 4 MP (2688 × 1520), motorized 2.8–12 mm varifocal lens
Plate reading	Up to 49 ft (15 m); vehicles up to 37 mph (60 km/h), manufacturer's maximum ratings; vehicle type recorded, color in daylight
Night	Built-in infrared, up to 66 ft (20 m)
Power	PoE, IEEE 802.3af, 10.6 W maximum; or 12 VDC ±10%, 8.6 W maximum
Housing	IP67, IK10 metal; −40 to 140 °F (−40 to 60 °C), 0–95% humidity non-condensing
Size and weight	13.6 × 5.3 × 5.0 in (346 × 134 × 126 mm), 2.9 lb (1.3 kg)
Post	Square yellow steel post, base plate anchored to concrete. Cable enters at the base in conduit.
Approvals	FCC Part 15B, CE
Compatibility	ONVIF Profile G, M, S and T