SBPVBE

Carpark videobox

Benefits

- **Cameras management.** Up to 8 IP cameras. One camera covers an average of 40 parking bays: it depends on the mounting height, positioning and IP cameras specifications.The videobox works with a wide range of standard IP cameras.
- **Utmost respect for privacy.** In accordance with the GDPR: after analysing the images, they are automatically destroyed so that there is no trace of sensitive content.
- **Quick installation.** No effect on normal parking activities.

Description

The SBPVBE videobox is part of the Carpark system, which contains other variants of sensors, controllers and displays.
The SBPVBE videobox uses IP cameras to detect cars parked in oudoor parking lot. A sophisticated algorithm converts the camera images into occupancy information: no sensitive data (car plate number, people's faces, etc.) are either sent over the Internet or stored.
This information will be sent to the cloud in real-time and UWP 3.0/SBP2CPY gathers it by means of the cloud.

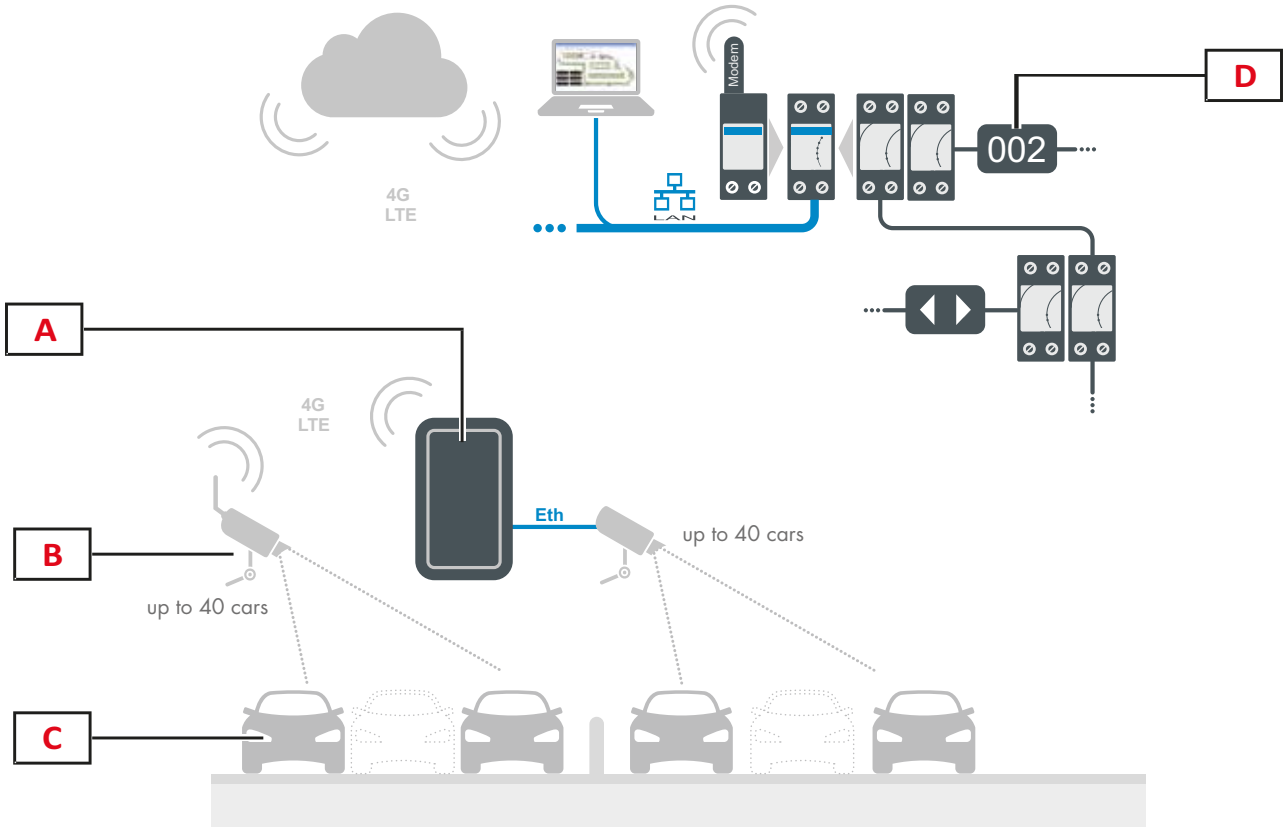
Applications

Parking Guidance Systems

Main functions

- Detection of the occupancy status of outdoor parking bays.
- Autolearning algorithm identifies cars presence with more than a 99% accuracy rate in 30 days.

Architecture

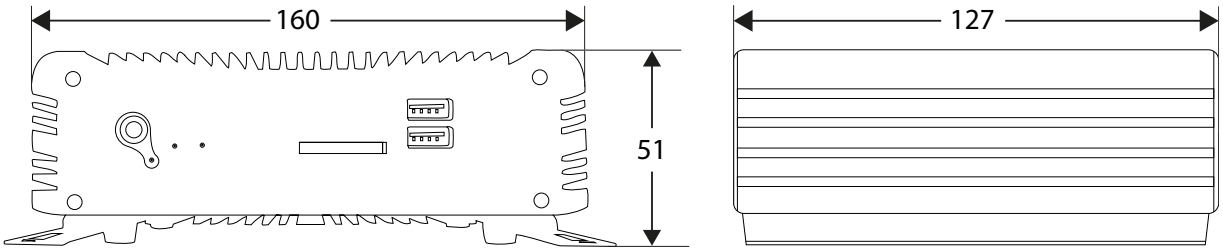


Element	Component	Function
A	SBPVBE videobox	It converts the video-stream into data (occupancy information) and it sends them to the cloud server.
B	IP cameras	They detect the cars presence in the parking bays.
C	Parking bays	
D	UWP 3.0/SBP2CPY System	It gathers occupancy information from the cloud.

Features

General

Type		Fanless Mini-PC
Operating system		Linux
Material		Metallic, black
Dimensions		160 mm x 51 mm x 127 mm
Weight		1000 g
Protection degree	Indoor	IP54
	Outdoor	SBPVBE must be installed into an IP66 box
Number of IP cameras		Max.8 per SBPVBE
Recognition rate		99%
Network adapters		1x RJ45 port 10/100/1000 Mbps



Environmental

Operating temperature	-20 to 60°C (-4 to 140°F)
Storage temperature	-30 to 70°C (-22 to 158°F)
Humidity (non-condensing)	20 to 90% RH

Compatibility and conformity

Approvals	CE
Conformity	EN 60 950-1 (edition 2006; A11: 2009; A1: 2010; A12: 2011)

Power Supply

Power supply		12 VDC
External power supply unit	Input	100-240 VAC, 50-60 Hz
	Output	Max.12 V 5.0 A 60 W
Maximum rated operational power		Typical 30 W

Recommanded IP camera specifications

Features	Recommended specification
Resolution	2 / 4 / 8 Mpx
Pan / tilt / zoom	They must be disabled before configuring the camera with the SBPVBE algorithm
Video data transmission method	LAN network through UTP/STP cable, better if PoE
	4G/LTE network (router is not included)
For an outdoor installation	Required protection degree: IP66 or higher

Note: Regular maintenance guarantees correct functioning of the system. Keep the IP camera's lens clean.

Installation

The SBPVBE videobox can be installed in an indoor or outodoor place and the IP cameras must be connected and configured on the same LAN network.
It is suggested to mount the IP cameras at a height of at least 8 m.
The installation can be performed safely on lamppost, roofs, towers, without visual disturbance, even in historic centres or in the presence of high-value architectures.

References

Further reading

Information	Document	Where to find it
Installation manual	IM SBPVBE	www.productselection.net/MANUALS/UK/IM_SBPVBE.pdf

Order code

SBPVBE

CARLO GAVAZZI compatible components

Purpose	Component name/code key	Notes
Central gateway	SBPCWSI1	
Controller	UWP30RSEXXX	
Carpark server	SBP2CPY24	