



QCAM5

The latest addition to the well renowned QCAM camera range

Integrating the latest **cutting-edge technologies** (deep learning-based algorithms), the CAM5 ANPR camera delivers **unprecedented number plate recognition** capabilities. Additionally, its outstanding image resolution and a **unique set of functionalities** designated to provide further **vehicle characterization** makes this product the "best in class" within its category.

The CAM5 camera can operate on **1, 2, 3 or 4 lanes** and is able to differentiate **all kind of vehicles** (e.g. cars, trucks, busses, motorcycles, bicycles, trams, etc.), **objects and persons**.

Moreover, it also integrates in option a **"Make & Model"** recognition feature, as well as a **"vehicle colour"** characterization. Both features are invaluable in finding vehicles and closing the current gap in similar product offerings, as these features, when available, typically require additional hardware and software.

The CAM5 camera is also able to calculate an **instantaneous speed** estimate for each vehicle travelling within its field of view.

The whole CAM5 camera technology is embedded in a **small footprint** - but well-designed - housing that discretely blends into urban environments. All details have been carefully thought and engineered to facilitate its installation and deployment: a **miniaturized motorization within the support arm** allows **remote alignment**, removing the burden of relying on an aerial lift truck for final mechanical setup.

MAIN TECHNICAL CHARACTERISTICS

- ▶ 5 MP dual high-sensitivity CMOS sensors (B/W & Color)
- ▶ Processor: Xavier NX
- ▶ Vehicle speed detection from 0 to 300 km/h
- ▶ Connectivity: Ethernet, Wi-Fi, 4G, 4G LTE, 5G
- ▶ GPS included
- ▶ Motorized support arm (tilt & pan)
- ▶ PSU: 24V DC 2.5A (35W only)
- ▶ Weight: 3.8kg
- ▶ IP68 protection & IK10
- ▶ CE conformity

✓ Ready to use with



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Overall Performances

Number of monitored lanes	1 – 2 – 3 – 4 (3 lanes on side pole, 4 lanes in the middle of a gantry)
Maximum speed of detected objects	Up to 300 km/h
Working distance	Up to 50 m (day), up to 30 m (night)
Vehicle detection accuracy	99%
Plate recognition accuracy	>98%
OCR	NVIDIA 256-core-based deep learning
Classification	All kind of vehicles (incl. cars, trucks, busses, motorcycles, bicycles, trams, etc.), objects and persons
Make & model recognition	Yes (optional)
Vehicle colour recognition	Yes (optional)
ADR recognition	Yes (optional)
Instant speed detection	Yes (optional)

Hardware & Connectivity

2 Sony CMOS sensors, Pregius Series (ANPR & context camera)	5 MP
Predetermined Focal lengths	8 mm / 12 mm / 16 mm / 25 mm / 35 mm
Frame rate	25 fps
Infra-red Illuminator	88 wide-angle IR LEDs, 850nm
Storage SSD	256 GB / 512 GB / 1 TB
GPS	Yes
3G/ 4G/ 4G LTE/ 5G	Yes (optional)
Wi-Fi, IEEE 802.11a/b/g/n/ac, 2.4/ 5 GHz	Yes
Ethernet RJ45	Yes
Bluetooth, v4.1, max. 3MB/s	Yes
Pan & tilt remote control	Yes, via motorized arm

Software & Image Processing

OS	Ubuntu (Linux For Tegra)
Encryption	AES256
Automatic white balance & backlight attenuation	Yes
Offset from the furthest lane	Up to 15m
Streaming	via RTSP, Colour video H264
Compression	PNG or JPEG
Time	NTP & GPS synchronization
Communication protocol	Web server & TCP/IP
Data transmission	JSON, SNMP, UTMIC
ONVIF COMPATIBILITY	Yes
System integration	M ³ platform and other systems via SDK (available upon request)

Mechanical & Conformity

Dimensions	190 x 110 x 196 mm (camera only)
Weight	3.8 kg
Power supply	24V DC, 2.5A (electrical starting peak), 35 W
Autonomous power supply thanks to solar panel & battery	Available upon request
CE conformity	Yes
IP/IK rating	IP68, IK10
Operating temperature	-40°C to +70°C
Operating humidity	10% to 95%