QCAM3

The latest addition to the well renowned iCAR camera range

Integrating the latest **cutting-edge technologies** (deep learning-based algorithms), the QCAM3 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 QCAM3 camera can operate on **2 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 color**" 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 QCAM3 camera is also able to calculate an **instantaneous speed** estimate for each vehicle travelling within its field of view.

The whole QCAM3 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 single high-sensitivity CMOS sensor (Color)
- Processor : NVIDIA Jetson Nano
- 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: 12V DC 1.5A (20W)
- Weight: 2kg
- IP67 protection & IK10
- CE conformity

✓ Ready to use with MACQ MOBILITY MANAGER

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TECHNICAL DATA

	QCAM3
Overall Performances	
Number of monitored lanes	2
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	>95%
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 color recognition	Yes (optional)
ADR recognition	Yes (optional)
Instant speed detection	Yes (optional)
Hardware & Connectivity	
1 Sony CMOS sensor, 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	8/10 Wide angle IR LED with Dome lens 855nm
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 7m
Streaming	via RTSP , Color video H264
Compression	PNG or JPEG
Time	NTP & GPS synchronization
Communication protocol	Web server & TCP/IP
Data transmission	HTTPS, JSON, SNMP, UTMC, RTSP
ONVIF compatibility	Yes
System integration	M³ platform and other systems via SDK (available upon request)
Mechanical & Conformity	
Dimensions	200 x 130 x 125 mm^3 (camera + fixture)
Weight	2 kg
Power supply	12V DC, 1.5A (electrical starting peak), 20 W
Autonomous power supply thanks to solar panel & battery	Available upon request
CE conformity	Yes
IP/IK rating	IP67 , IK10
Operating temperature	-25°C to +65°C
Operating humidity	10% to 95%

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