QCam3

The green one

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 types of vehicles** (e.g. cars, trucks, busses, motorcycles, trailers, etc.).

Moreover, it also integrates in option a **"Make & Model"** recognition feature, as well as a **"vehicle color"** characterization (with color sensor). 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 high-sensitivity Sony CMOS global shutter sensors (Color)
- Processor: NVIDIA Jetson Nano
- Vehicle speed detection up to 180 km/h
- Connectivity: Ethernet RJ45, WiFi, 4G, 5G
- GNSS included
- Motorized support arm (tilt & pan)
- VARI-FOCAL 12mm 50mm (with color sensor) with P FOCUS and P-IRIS
- PSU: PoE+ and 12v DC 2.0A avg 12W
- Weight: 2.2 kg
- IP67 protection & IK7
- CE conformity
- ONVIF Compatibility

Rue de l'Aéronef 2, 1140 Evere
Luchtschipstraat 2, 1140 Evere
contact@macq.eu
www.macq.eu
+32 (0)2 610 15 00

OVERALL PERFORMANCE	
Number of Monitored lanes	Up to 2 lanes
Maximum speed of detected objects	Up to 180 km/h
Working distance	Up to 30 m (day & night)
Vehicle (with plate) detection accuracy	>99 %
Plate recognition accuracy	>99 %
Typical installation	City / Secondary road / Parking
Vehicle characteristics (e.g., taxi, police, ambulance, caravan,...)	Yes (optional)
Detection of oversized vehicles	Yes (optional) - Available soon
Classification	(Optional) car, van, bus, truck (LGT, HVT),motorbike
Vehicle without license plate detector	(Optional) worst performance among the three types of cameras
Slow mobility detector	(Optional) worst performance among the three types of cameras: Pedestrian / Bike / Kickbike
Make & Model recognition	Yes (optional)
Vehicle color recognition	Yes (optional)
ADR recognition	Yes (optional)
Instant Speed detection (video based)	Yes (optional)
HARDWARE & CONNECTIVITY	
Sensor	5 MP high-sensitivity Sony CMOS global shutter sensors (Color)
Lens	- VARIFOCAL 12mm - 50mm with P-FOCUS and P-IRIS - VARIFOCAL 4mm - 10mm with P-FOCUS and P-IRIS
Infra-red Illuminator	8 high power IR LED 855nm
Storage SSD	256 GB / 512 GB (optional) / 1 TB (optional)
GNSS	Yes
Connectivity	Ethernet RJ45, Wi-Fi , 4G (optional), 5G (optional and only with high volume)
Wi-Fi, IEEE 802.11a/b/g/n/ac, 2.4 / 5 GHz	Yes
Ethernet RJ45	Yes
Motorized support arm (tilt & pan) - remote control	Yes
SOFTWARE & IMAGE PROCESSING	
OS	Ubuntu (Linux for Tegra)
Encryption	AES256
Automatic white balance & backlight attenuation	Yes
Video streaming	RTSP, WebRTC, HLS
Video compression	H264, Motion JPEG, MPEG-4
Data transmission	JSON, SNMP
Time	NTP & GNSS Synchronization
Communication protocols	HTTP, HTTPS, MQTT(S), SNMP
External I/O trigger (used for event output)	Yes (optional)
ONVIF compatibility	Yes - Profile S
System integration	M³ Platform, via SDK (available upon request)
MECHANICAL & CONFORMITY	
Dimensions	288 x 143 x 99 mm³
Weight	2.2 kg
Power Supply	PoE+ & 12v DC 2.0A avg 12W
Solar panel & battery autonomus power supply	Available upon request
CE conformity	Yes
IP /IK rating	IP67, IK7
Operating temperature	-25°C to +60°C
Operating humidity	10% to 95%

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