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 single high-sensitivity CMOS sensor (BW or Color) with motorized focus & iris
- Processor: NVIDIA Jetson Nano
- Vehicle speed detection up to 180 km/h
- Connectivity: Ethernet, Wi-Fi, 4G, 5G
- GNSS included
- Motorized support arm (tilt & pan)
- VARI-FOCAL 12mm – 50mm (with color sensor) with P-FOCUS and P-IRIS
- PSU: PoE+, 12V DC 1.5A (20W)
- Weight: 2.2 kg
- IP66 protection & IK10
- CE conformity
- ONVIF Compatibility

Ready to use with

MACQ MOBILITY MANAGER

	QCAM3
Overall Performances	
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 detection accuracy	>99%
Plate recognition accuracy	>98%
OCR	NVIDIA 128 core-based deep learning
Classification	All vehicle types (incl. cars, trucks, busses, motorcycles, trailers, etc.) (optional)
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 IMX 567, Pregius Series	5 MP
VARIFOCAL	12 mm to 50 mm (with color sensor)
Fixed Focal	25 mm (with BW sensor)
P-FOCUS	Yes
P-IRIS	Yes
Infra-red Illuminator	8 Wide angle IR LED with Dome lens 855nm
Storage SSD	256 GB / 512 GB / 1 TB
GNSS	Yes
3G / 4G / 5G	Yes (optional)
Wi-Fi, IEEE 802.11a/b/g/n/ac, 2.4 / 5 GHz	Yes
Ethernet RJ45	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
Video Streaming	RTSP, WebRTC, HLS
Video compression	H264, Motion JPEG, MPEG-4
Image Compression	JPEG
Synchronization Time	NTP & GNSS
Communication protocols	HTTP, HTTPS, MQTT, UTMC, SNMP
External & Internal I/O trigger	Yes (optional)
ONVIF compatibility	Profile S
System integration	M³ platform, via SDK (available upon request)
Mechanical & Conformity	
Dimensions	188 x 143 x 99 mm³ (camera + fixture)
Weight	2.2 kg
Power supply	POE+, 12V DC 1.5A (20W)
Solar panel & battery autonomous power supply	Available upon request
CE conformity	Yes
IP/IK rating	IP66, IK10
Operating temperature	-25°C to +60°C
Operating humidity	10% to 95%