



# QCam5

**Next-Gen AI for Speed & Road Control – Scanning Up to 300 km/h on 4 Lanes, Now HOMOLOGATED for Speed Section Control.**



Integrating the latest **cutting-edge technologies** (deep learning-based algorithms), the QCAM5 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 QCAM5 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, trailers, 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 QCAM5 camera is also able to calculate an **instantaneous speed** estimate for each vehicle travelling within its field of view.

The whole QCAM5 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. A motorized lens is also incorporated into the system.



## Main Technical Characteristics

- 5 MP dual high-sensitivity CMOS global shutter sensors (B/W & Color)
- Processor: NVIDIA Jetson TX2
- Vehicle speed detection up to 300 km/h
- Connectivity: Ethernet RJ45, Wi-Fi, 4G (optional)
- GNSS included
- Motorized support arm (tilt & pan)
- PSU: 24v DC 3.0A avg 30w
- Weight: 3.8kg
- IP67 protection & IK10
- CE conformity
- ONVIF Compatibility

OVERALL PERFORMANCE	
Number of Monitored lanes	Up to 4 lanes
Maximum vehicle speed	Up to 300 km/h
Working distance	Up to 50 m (day), up to 30 m (night)
Vehicle (with plate) detection accuracy	>99 %
Plate recognition accuracy	>99 % (less when more than 2 lanes)
Typical installation	Highway / Challenging environment / Traject control
Slow mobility detector	(Optional) Performance between the two: Pedestrian/ Bike / Kickbike
Classification	(Optional) Car / Van / Bus / Truck (LGT, HVT) / Motorike
Vehicle without license plate detector	(Optional) Performance between the two
Vehicle characteristics (e.g., taxi, police, ambulance, caravan,...)	Yes (optional)
Detection of oversized vehicles	Yes (optional) - available soon
Automatic white balance & backlight attenuation	Yes
Make & Model recognition	Yes (optional)
Vehicle color recognition	Yes (optional)
ADR recognition	Yes (optional)
Instant speed detection (video based)	Yes (optional)
Driver attributes: Seatbealt, phone detection, front occupancy	Yes (optional)
HARDWARE & CONNECTIVITY	
Sensor	5 MP dual high-sensitivity CMOS global shutter sensors (B/W & Color)
Lens	Predetermined Focal Fix lengths : 8 mm / 12 mm / 16 mm / 25 mm / 35 mm
Red light detection (road and rail infraction)	Yes (optional)
Infra-red Illuminator	88 wide-angle IR LEDs, 850nm
Storage SSD	256 GB / 512 GB (optional) / 1 TB (optional)
GNSS	Yes
Processor	NVIDIA Jetson TX2
Connectivity	Ethernet RJ45 / Wi-Fi / 4G (optional)
Motorized support arm (tilt & pan) - remote control	Yes
SOFTWARE & IMAGE PROCESSING	
OS	Ubuntu (Linux for Tegra)
Encryption	AES256
Video Streaming	RTSP / WebRTC /HLS
Video Compression	H264 / Motion JPEG / MPEG-4
Time	NTP & GNSS synchronization
Communication protocol	HTTP, HTTPS, MQTT(S),SNMP
External Radar integration	Yes (optional)
Data transmission	JSON, SNMP
ONVIF compatibility	Yes - Profile S
External I/O trigger (used for event output)	Yes (optional)
System integration	M³ Platform, via SDK (available upon request)
MECHANICAL & CONFORMITY	
Dimensions	188 x 256 x 270 mm³
Weight	3.8 kg
Power Supply	24v DC 3.0A avg 30w
Solar panel & battery autonomus power supply	Available upon request
CE conformity	Yes
IP /IK rating	IP67, IK10
Operating temperature	-25°C to +65°C
Operating humidity	10% to 95%