



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) (optional)
- Processor: NVIDIA Jetson ORIN NX
- Vehicle speed detection up to 300 km/h
- Connectivity: Ethernet, Wi-Fi, 4G (Optional), 5G (Optional)
- GNSS included
- Motorized support arm (tilt & pan)
- VARIFOCAL 12mm - 50mm with P-FOCUS and P-IRIS
- PSU: 24v DC 2.0A or PoE++ (optional) 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 70 m (day & night)
Typical installation	Highway / Challenging environment / Need for high performance /Need for numerous features simultaneously
Vehicle (with plate) detection accuracy	>99 %
Plate recognition accuracy	>99 % (less when more than 2 lanes)
Classification	(Optional) Car / Van / Bus / Truck (LGT, HVT) / Motorbike
Advanced Classification (vehicle + trailer detection)	- Swiss10 (optional) - TLS8+1 (optional)
Vehicle without license plate detector	(Optional) best performance among the three types of cameras
Slow mobility detector	(Optional) best performance among the three types of cameras: Pedestrian / Bike / Kickbike
Make & Model recognition	Yes (optional)
Vehicle characteristics (e.g., taxi, police, ambulance, caravan,...)	Yes (optional)
Vehicle generation recognition & variant detection	Yes (optional) - Available soon
Vehicle color recognition	Yes (optional)
Vehicle counting	Yes (optional)
ADR recognition	Yes (optional)
Instant speed detection (video based)	Yes (optional)
External radar integration	Yes (optional)
Driver attributes: Seatbealt, phone detection, front occupancy	Yes (optional)
HARDWARE & CONNECTIVITY	
Sensor	- 5 MP high-sensitivity CMOS global shutter sensors (Color) - 5 MP dual high-sensitivity CMOS global shutter sensors (B/W & Color) (optional)
Lens	VARIFOCAAL 12mm - 50mm with P-FOCUS and P-IRIS
Red light detection (road and rail infraction)	Yes (optional)
Infra-red Illuminator	12 high power IR LED 855nm
Storage SSD	256 GB / 512 GB (optional) / 1 TB (optional)
GNSS	Yes
Connectivity	Ethernet RJ45 / Wi-Fi/ 4G (optional) and not compatible with PoE++ / 5G (optional and only with high volume) and not compatible with PoE++
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
Time	NTP & GNSS synchronization
Communication protocol	HTTP, HTTPS, MQTT(S),SNMP
External I/O trigger (used for event output)	Yes (optional)
Internal I/O trigger (used for external flash synchronisation)	Yes
Data transmission	JSON, SNMP
ONVIF compatibility	Yes - Profile S
System integration	M ³ Platform, via SDK (available upon request)
MECHANICAL & CONFORMITY	
Dimensions	188 x 256 x 270 mm ³
Weight	3.8 kg
Power Supply	24v DC 2.0A or PoE++ (optional) 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%