

## QCAM5

The latest addition to the well renowned QCAM camera range

Integrating the latest **cutting-edge technologies** (deep learningbased 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 sensors (B/W & Color)
- Processor: ORIN NX
- > Vehicle speed detection up to 300 km/h
- > Connectivity: Ethernet, Wi-Fi, 4G, 5G
- > GNSS included
- Motorized support arm (tilt & pan)
- VARI-FOCAL 12mm 50mm with P-FOCUS and P-IRIS
- PSU: POE++, 24V DC 2.0A
- > Weight: 3.8kg
- IP68 protection & IK10
- > CE conformity
- ONVIF Compatibility



## CONTACT US

+32 2 610 15 00 contact@macq.eu



## **TECHNICAL DATA**

QCAM5

$\leq$
$\geq$
$\leq$
$\geq$
$\leq$
$\geq$
$\leq$
$\geq$
$\geq$
$\geq$
$\leq$
$\geq$
$\leq$
$\leq$
$\geq$
$\leq$
$\geq$
$\leq$
$\geq$
$\leq$
$\geq$
$\geq$
$\leq$
$\leq$
$\geq$
$\geq$
$\leq$
$\leq$
$\geq$
$\geq$
$\geq$
$\leq$
$\geq$
$\leq$
$\leq$
$\geq$
$\leq$
$\leq$

	QCAM5
Overall Performances	
Number of monitored lanes	Up to 4 lanes
Maximum speed of detected objects	Up to 300 km/h
Working distance	Up to 70m (day & night)
Vehicle detection accuracy	>99%
Plate recognition accuracy	>99%
Classification	All vehicle types (incl. cars, trucks, busses, motorcycles, bicycles, trailers, etc.), objects and persons (optional)
Make & model recognition	Yes (optional)
Vehicle colour recognition	Yes (optional)
ADR recognition	Yes (optional)
Instant speed detection	Yes (optional)
Driver attributes: Seatbelt, phone detection,	Yes (optional)
Hardware & Connectivity	
2 Sony CMOS sensors IMX 567, Pregius Series (ANPR & context camera)	5 MP
VARIFOCAL	12mm to 50mm
P-FOCUS	Yes
P-IRIS	Yes
Infra-red Illuminator	12 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
-	Yes
Streaming	Yes RTSP, Color & B/W H264
Streaming	Yes
Streaming Compression	Yes RTSP, Color & B/W H264
Streaming Compression Time	Yes RTSP, Color & B/W H264 JPEG
Streaming    Compression    Time    Communication protocol	Yes RTSP, Color & B/W H264 JPEG NTP & GNSS synchronization
Streaming   Compression     Time   Communication protocol     External & Internal I/O trigger   Communication	Yes RTSP, Color & B/W H264 JPEG NTP & GNSS synchronization Web server & TCP/IP
StreamingCompressionTimeCommunication protocolExternal & Internal I/O triggerData transmission	Yes RTSP, Color & B/W H264 JPEG NTP & GNSS synchronization Web server & TCP/IP Yes (optional)
StreamingCompressionTimeCommunication protocolExternal & Internal I/O triggerData transmissionONVIF Compatibility	Yes RTSP, Color & B/W H264 JPEG NTP & GNSS synchronization Web server & TCP/IP Yes (optional) JSON, SNMP, UTMC
StreamingCompressionTimeCommunication protocolExternal & Internal I/O triggerData transmissionONVIF CompatibilitySystem integration	Yes RTSP, Color & B/W H264 JPEG NTP & GNSS synchronization Web server & TCP/IP Yes (optional) JSON, SNMP, UTMC Profile S
Streaming   Compression     Compression   Time     Communication protocol   External & Internal I/O trigger     Data transmission   ONVIF Compatibility     System integration   Mechanical & Conformity	Yes RTSP, Color & B/W H264 JPEG NTP & GNSS synchronization Web server & TCP/IP Yes (optional) JSON, SNMP, UTMC Profile S
Streaming     Compression     Time     Communication protocol     External & Internal I/O trigger     Data transmission     ONVIF Compatibility     System integration     Mechanical & Conformity     Dimensions	Yes RTSP, Color & B/W H264 JPEG NTP & GNSS synchronization Web server & TCP/IP Yes (optional) JSON, SNMP, UTMC Profile S M <sup>a</sup> platform, via SDK (available upon request) 188 x 256 x 270 mm
StreamingCompressionTimeCommunication protocolExternal & Internal I/O triggerData transmissionONVIF CompatibilitySystem integrationMechanical & ConformityDimensionsWeight	Yes RTSP, Color & B/W H264 JPEG NTP & GNSS synchronization Web server & TCP/IP Yes (optional) Yes (optional) JSON, SNMP, UTMC Profile S M <sup>3</sup> platform, via SDK (available upon request) 188 x 256 x 270 mm 3.8 kg
Automatic white balance & backlight attenuation   I     Streaming   I     Compression   I     Time   I     Communication protocol   I     External & Internal I/O trigger   I     Data transmission   I     ONVIF Compatibility   I     System integration   I     Mechanical & Conformity   I     Dimensions   I     Weight   I     Power supply   Solar panel & battery autonomous power supply	Yes RTSP, Color & B/W H264 JPEG NTP & GNSS synchronization Web server & TCP/IP Yes (optional) Yes (optional) JSON, SNMP, UTMC Profile S M <sup>3</sup> platform, via SDK (available upon request) 188 × 256 × 270 mm 3.8 kg POE++, 24V DC 2.0A
StreamingCompressionTimeCommunication protocolExternal & Internal I/O triggerData transmissionONVIF CompatibilitySystem integrationMechanical & ConformityDimensionsWeightPower supplySolar panel & battery autonomous power supply	Yes RTSP, Color & B/W H264 JPEG NTP & GNSS synchronization Web server & TCP/IP Yes (optional) Yes (optional) JSON, SNMP, UTMC Profile S M <sup>3</sup> platform, via SDK (available upon request) 188 x 256 x 270 mm 3.8 kg POE++, 24V DC 2.0A Available upon request
StreamingCompressionTimeCommunication protocolExternal & Internal I/O triggerData transmissionONVIF CompatibilitySystem integrationMechanical & ConformityDimensionsWeightPower supplySolar panel & battery autonomous power supplyC conformity	Yes RTSP, Color & B/W H264 JPEG NTP & GNSS synchronization Web server & TCP/IP Yes (optional) JSON, SNMP, UTMC Profile S M³ platform, via SDK (available upon request) 188 × 256 × 270 mm 3.8 kg POE++, 24V DC 2.0A Available upon request Yes
StreamingCompressionTimeCommunication protocolExternal & Internal I/O triggerData transmissionONVIF CompatibilitySystem integrationMechanical & ConformityDimensionsWeightPower supplySolar panel & battery autonomous power supply	Yes RTSP, Color & B/W H264 JPEG NTP & GNSS synchronization Web server & TCP/IP Yes (optional) Yes (optional) JSON, SNMP, UTMC Profile S M <sup>3</sup> platform, via SDK (available upon request) 188 x 256 x 270 mm 3.8 kg POE++, 24V DC 2.0A Available upon request