



MQ-8™ & QORTEX DTC™ Solution

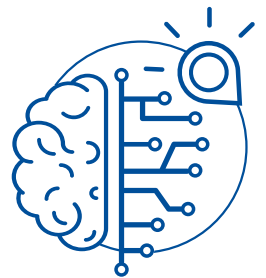
3D AI-Powered LiDAR Flow Management™ Platform

HIGH ACCURACY | REAL-TIME 3D | PRIVACY PROTECTION | COMPATIBILITY WITH LEADING VMS

The MQ-8/QORTEX DTC Solution is an integrated hardware and software platform that combines Quanergy's MQ-8 LiDAR sensor with QORTEX DTC (Detect, Track, Classify) perception software for reliable, real-time people tracking in security, smart city, and smart spaces.

The solution uses machine learning and 3D perception algorithms to scan the sensor's field of view, analyze point cloud data, and provide anonymized information on detected objects. This enables automated security that is both cost-effective and easy to manage. The solution allows users to:

- Identify and classify objects as people or vehicles
- Track individual people and vehicles and provide real-time, centimeter level accurate location information
- Automatically control PTZ camera movement to follow selected individuals



100x Broader Coverage Area Than Cameras

Delivers industry leading range, capable of tracking and classifying over 250 people and vehicles with 95% accuracy up to 70m (140m diameter). Due to its unique asymmetric beam design, a single MQ-8 solution can cover up to 15,000m² area, up to 100x broader than equivalent camera-based systems.

Increase Security & Reduce Costly False Alarms

When integrated with video management system such as Genetec Security Center™ RSA and PTZ camera, the MQ-8 sensor precisely pinpoints the location of potential threats, reducing costly false alarms and optimizing security resources.

Automated ID Handover™

The solution's Automated ID Handover capability allows continuous tracking of up to 250 individuals or vehicles throughout the system's entire field of view. This allows for powerful, system-wide data solutions such as curb-to-gate people tracking at airports, flow management/footfall analytics, and social distancing applications in public venues like stadiums.

Zero PII Risk

The patent-pending QORTEX's sophisticated perception software doesn't use facial recognition technology nor requires the storing of any Personally Identifiable Information, and therefore poses zero PII risk to protect individual privacy.

10-20x Lower Cost Than Traditional Camera Systems

The expanded range allows for complete coverage of broader areas with fewer devices compared to camera-based systems. As a result, the MQ-8 solution quickly and reliably scans large areas like malls, airports, and parking lots at 10-20x lower cost compared to cameras.

Product Acceleration: Fast Track Software Bundle

With QORTEX DTC and its Fast Track bundle, customers can reduce their product time-to-market by focusing their efforts on value added application level development. The Fast Track bundle includes source code, tools and business logic to help customers and partners' go-to-market faster and includes features such as Google Map visualization, sensor coverage, geo-location, port monitoring and alerts.

Applications



- Perimeter security
- Critical infrastructure



- Traffic intersections & pedestrian crosswalks



- Retail
- Commercial buildings
- Stadiums & public venues
- Airport



- Social distancing

SPECIFICATIONS

QORTEX DTC CLIENT

Application	Visualize and configure QORTEX DTC Server (not required during normal operation)
Operating System	Windows 10
Minimum System Requirements	Intel Core i3, 4 GB RAM, OpenGL-compliant graphics, Gigabit Ethernet
Display Resolution Support	1024x768, 1280x800, 1280x1024, 1366x864, 1440x900, 1600x900, 1920x1080, 2048x1536, 2560x1440, 3840x2160 and 4096x2160

SPECIFICATIONS

QORTEX DTC SERVER

Application	Object detection, tracking and classification for security, smart buildings, smart spaces, and social distancing
Operating System	Ubuntu 16.04
Object Information	Provides an object list with 3D direction and position, speed and classification in Protobuf, JSON or XML format
Classification Types	Human, Vehicle, Unknown
Continuous Tracking Range	Ultra: 140m (70m radius range) Plus: 100m (50m radius range)
Maximum Number of Simultaneous Objects	Up to 250 objects depending on hardware processing platform: QPU-L7: 150 objects, QSPU: 250 objects
Minimum System Requirements	Intel Core i3, 4 GB RAM, Gigabit Ethernet (2 virtual cores + 1 virtual core per sensor) 100 MB storage memory (no recording)
Recording Storage Requirement	150 MB/sensor/min (single return mode)
VMS Compatibility	Genetec GSC (RSA & PFA), Milestone Xprotect Corporate, Expert, Professional+ and Express+

SPECIFICATIONS

MQ-8

MQ-8-PoE

Laser Class	Class 1 Laser Product (eye safe, IEC 60825-1)	
Wavelength	905nm	
Frame Rate	5-20Hz	
Field of View (FOV)	Horizontal: 360°, Vertical: 12.43° (-1.6°/-14°)	
Output Connection	M12 Connector: 100/1000Mbps Ethernet, NMEA/PPS, Power	RJ-45 802.3at (PoE+)
Nominal Power	16W	18W
Input Voltage	9-30VDC	42.5-57VDC
Operating Temperature	-20 °C to +60°C (-4°F to +140°F)	
Storage Temperature	-40 °C to +105°C (-40°F to +220°F)	
Nominal Weight	900g	1375g
Dimensions	103mm (D) x 96mm (H)	115mm (D) x 134mm (H)
Shock and Vibration	ETSI EN 300 019-2-5, IEC Class 5M3	
Environmental Protection	IP69K	IP67
Certifications and Compliance	FDA, FCC, CE, RoHS, WEEE	
Warranty	2 years	

*Specifications are subject to change without notice