



QUANERGY

DETECTION | TRACKING | CLASSIFICATION

QORTEX ► QORTEX DTC SOLUTION

The QORTEX DTC™ (Detection, Tracking, Classification) Solution is a highly intelligent and integrated hardware and software platform solution consisting of Quanergy's M8™ LiDAR sensor and discrete processing hardware running QORTEX DTC perception software. Quanergy's patented M8 LiDAR sensor is a proven LiDAR powerhouse while the QORTEX DTC incorporates 3D perception algorithms to detect, track and classify objects based on the rich point cloud data received from the M8. Together, the total solution enables an entirely new level of smart awareness to interpret the world around us.

QORTEX DTC provides users with detailed object information for the ultimate in surveillance protection and crowd analytics. This software suite can enable automated security for an easy to manage and cost-effective security solution. Alternatively, users can collect crowd statistics and traffic patterns to enable smart building automation and derive analytical insights. In conjunction with Quanergy's M8 LiDAR sensor, QORTEX DTC software can perform the following:

- Use perception algorithms to identify and classify objects as people
- Track individual people and provide real-time location information
- Automatically control PTZ camera movement to follow selected people

QORTEX DTC is also compatible with leading video management software (VMS) from Genetec and Milestone.

KEY APPLICATIONS

- Airports
- Border Security
- Critical Infrastructure
- Perimeter Protection
- Smart Buildings and Spaces

KEY FEATURES

- Real-time people tracking for security and analytics applications
- Privacy protection as LiDAR provides anonymized data
- Integrated hardware and software solution
- Compatible with Genetec and Milestone VMS
- Operational in various lighting conditions

QORTEX DTC CLIENT SPEC TABLE

PARAMETER	SPECIFICATION
Application	Visualize and configure QORTEX DTC Server (not required during normal operation)
Operating System	Ubuntu 16.04
Minimum System Requirements	Intel Core i3, 4 GB RAM, OpenGL-compliant graphics, Gigabit Ethernet
Display Resolution Support	1024x768, 1280x800, 1280x1024, 1366x768, 1536x864, 1680x1050 and 1920x1080

PARAMETER	SPECIFICATION
Applications	Object detection, tracking and classification for security, smart buildings and smart spaces
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, unidentified
Detection Performance	50 m with 95% accuracy
Continuous Tracking Range	40 m (human sized objects)
Recommended Spacing Between Sensors	Up to 100 m
Maximum Number of Simultaneous Objects	Up to 100 objects depending on hardware processing platform <ul style="list-style-type: none"> • 10 QPU Mini • 50 QPU-L7 • 100 QSPU
Object Location Accuracy	10 cm (human sized objects)
Minimum System Requirements	Intel Core i3, 4 GB RAM, Gigabit Ethernet (50x50 m area or smaller) Intel Core i5, 8 GB RAM, Gigabit Ethernet (50x50 m area or larger) 100 MB storage memory (no recording)
Recording Storage Requirement	20 MB/sensor/min (single return mode)
VMS Compatibility (QORTEX DTC Premium Feature)	Genetec GSC 57 Milestone XProtect 2017 R3 Corporate, Expert, Professional+ and Express+

M8 SPEC TABLE

PARAMETER	SPECIFICATION	
	M8-PLUS	M8-POE
Laser Class	Class I (Eye Safe IEC 60825-1)	
Wavelength	905 nm	
Field of View (FOV)	Horizontal: 360°, Vertical: 20° (+3°/-17°)	
Output Connection	M19 connector 100/1000 Mbps Ethernet	RJ-45 802.3at (PoE+)
Nominal Power	18 W	19 W
Input Voltage	24 VDC +/-1.2 V	37-57 VDC
Operating Temperature	-20°C to +60°C (-4°F to +140°F)	
Storage Temperature	-40°C to +105°C (-40°F to +220°F)	
Object Location Accuracy	10 cm (human sized objects)	
Nominal Weight	900 g	1360 g
Dimensions	103 mm diameter x 87 mm height	115 mm diameter x 133 mm height
Shock and Vibration	ETSI EN 300 019-2-5, IEC Class 5M3	
Environmental Protection	IP69K	IP67
Certifications and Compliance	FDA, FCC, CE, RoHS, WEEE, ISO 9001:2015, EN-61326, IEC-61010, IEC-60079-15, ASTM G154	