



Q-Track™

See Beyond Traditional Security with 3D LiDAR Security Solutions

INTELLIGENT | ACCURATE | PROACTIVE

Q-Track™ redefines physical security with a seamlessly integrated solution that combines Quanergy's long-range 3D LiDAR sensors with advanced perception software. This solution provides users with hyper-accurate 3D intelligent proactive awareness to reduce false alarms and save lives. We've raised the bar by setting new benchmarks for event detection, object classification, and tracking for physical security and business intelligence applications that see beyond what currently exists, and reach for what could be and should be the new security technology imperative. It provides 20x higher accuracy in detecting real alarms at less than half the price of existing technologies. Q-Track is also the industry's first 3D LiDAR Security-as-a-Service solution. In addition to the CapEx model, it is available via a subscription which allows you to budget it as an operating expense (OPEX).

Benefits

- **3D Real-time Proactive Awareness:** Comprehensive 360° view of your surroundings for proactive decision-making.
- **Privacy-Assured Operation:** Q-Track does not capture any personally identifiable information (PII), ensuring privacy compliance and safeguarding sensitive data.
- **Wide Coverage with High Accuracy:** Each Q-Track sensor provides an impressive coverage area of 165,000 square feet (15,000 square meters), ensuring high accuracy in object detection, tracking, and classification of people, vehicles, and sub-vehicles.
- **Low Cost Per Square Foot:** Each sensor can classify objects at 420 feet/140 meters, dramatically reducing the number of sensors, cables, networking ports, and installation runs to deliver industry-leading total cost of ownership.
- **20x Higher Alarm Detection Accuracy:** Innovative features such as occlusion filter & motion threshold filter help provide 20x higher accuracy in detecting real alarms at less than half the price of existing technologies
- **Simultaneous Tracking of 1,000+ Objects:** With Q-Track, you can track 1,000+ unique objects simultaneously, ensuring comprehensive monitoring of your environment.
- **Continuous Object Tracking with Sensor Fusion:** Our sensor fusion technology enables continuous object tracking in virtually unlimited areas, providing a reliable and continuous monitoring solution.
- **Unlimited Range with Mesh Network:** Create a mesh network of sensors and servers to continuously track objects over an unlimited range, allowing for flexible and scalable deployments.
- **Speed, Direction, and Geolocation Detection:** Q-Track can accurately detect the speed, direction, and geolocation of objects, enabling you to respond promptly to potential threats.
- **Reliable Performance in Harsh Environments:** Q-Track is designed to operate reliably in harsh environmental conditions, ensuring continuous surveillance without compromise.
- **NDAA Compliance:** Our solution fully complies with the National Defense Authorization Act (NDAA), ensuring adherence to regulatory standards.
- **Seamless Integration with Existing Systems:** Q-Track seamlessly enhances existing security systems through a large ecosystem of integrations with VMSeS, cameras, access control solutions, PSIMs, and analytics solutions.
- **Buying Flexibility:** Budget this advanced solution as a capital expense (CAPEX) or an operating expense (OPEX) via the Security as a Service subscription.

Key Use Cases



- PIDS (Perimeter Intrusion Detection)
- Fence, Wall, Rooftop Protection
- Continuous Tracking of Individuals in Large and/or Crowded Areas



- Tailgating Prevention
- Asset Protection
- Footfall Analysis
- Space Utilization
- Operational Efficiency



Key Markets

Critical Infrastructure

Power Plants, Substations, Water Treatment, Solar, Nuclear, Data Centers, Correctional Facilities, Airports, Military Bases, Dams, Ports, Borders

Enterprises

Education, Pharma, Manufacturing, Delivery Services, Distribution Centers, Warehouses, Parking Lots

Smart Spaces and Smart Cities

Airports, Retail Chains, Commercial Buildings, Intersections, Municipalities, Bridges, Highways, Transportation

Q-TRACK SOFTWARE CLIENT

Application	Visualize and configure Q-TRACK Software Server (not required during normal operation)
Operating System	Windows 10/11 and Ubuntu 20.04
Minimum System Requirements	Intel Core i3 with AVX2, 4 GB RAM, OpenGL-compliant graphics, Gigabit Ethernet



Q-TRACK SOFTWARE SERVER

Application	Object detection, tracking, and classification for security, smart buildings, smart spaces
Operating System	Windows 10/11 and Ubuntu 20.04
Object Information	Provides an object list with 3D direction and position, speed, and classification in Protobuf, JSON, or XML format
†Classification Types	Human, Vehicle (Two Wheeler, Passenger and Commercial), Unknown
Continuous Tracking Range (3m mounting height, 10% object refl.)	Q-Track Pro: 140m (70m radius range) Q-Track: 100m (50m radius range)
Maximum Number of Simultaneous Objects	1,000+ objects depending on the hardware processing platform and number of sensors
Minimum System Requirements	Intel Core i3 with AVX2, 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	Most major VMSs such as Milestone XProtect®, Genetec Security Center, Hanwha Wave, Network Optix, Mirasys, Flir Latitude, Salient, Digifort, Advancis, Surveill and many more**
Additional Features	Direct PTZ Camera control via ONVIF**

SPECIFICATIONS Q-TRACK 3D LiDAR SENSOR

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°
Output Connection	RJ-45 802.3at (PoE+)
Nominal Power	18W
Input Voltage	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 +221°F)
Nominal Weight	1375g
Dimensions	115mm (D) x 134mm (H)
Shock and Vibration	ETSI EN 300 019-2-5, IEC Class 5M3
Environmental Protection	IP67
Certifications and Compliance	FDA, FCC, CE, RoHS, WEEE, NDAA, GDPR and Other Regional Privacy Regulations (NDAA, BAA, TAA, CCPA, BIPA, etc)
Warranty	2+3 years (CAPEX), duration of the subscription (OPEX)



SPECIFICATIONS - MOUNT

Appearance	Powder coated white
Weight	1.4kg
Dimension	161mm x 161mm x 140mm
Material	Aluminum and steel

*Specifications are subject to change without notice

**Contact Quanergy Sales for the supported VMS, and Camera list