Twister

Smart short-range eVTOL sUAS

About us

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Quantum Systems is at the forefront of AI-powered aerial robotics, developing a family of smart systems that go far beyond traditional drones. Our advanced electric vertical take-off and landing (eVTOL) unmanned aerial systems (UAS), combined with our Nexus Drone Port solution, are designed to deliver automated actionable aerial intelligence.

Built on a foundation of in-house software and AI, our systems transform aerial data into critical insights, empowering decision-making across security, defense and public safety, as well as for the commercial, industrial and GIS sectors.

Featuring cutting-edge technology like edge computing and real-time AI-driven data processing, Quantum Systems enables operators to make informed decisions with unmatched speed and precision. Our solutions bring aerial intelligence to your fingertips, automating the entire process – from deployment to data analysis.

Founded in 2015 and headquartered at Special Airport Oberpfaffenhofen near Munich, Quantum Systems operates globally with locations in the United States, Australia, the United Kingdom, Ukraine and Romania. Our German-engineered technology is trusted worldwide, paving the way for a new era of data-driven solutions.

Minimal Signature. Maximum Intelligence.

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Twister
eVTOL fixed-wing sUAS

Autonomous Group 1 sUAS designed for mobile disconnected military and security operations. Vertical take-off and landing in confined areas.
Equipped with AES-256 encrypted mesh network radio, tactical hand controller and laptop (optional).

Wingspan	1.25 m
MTOW	3.8 kg
Wind	10m/s during hover phase
	12m/s during cruise

One person set-up

No tools needed

Easy to carry

Fast deployment – less than 3 mins

Backpack

Compact portable carrying for the whole tactical deployment system.

Multicam

Black

Smart Battery

- **Self heating**
- **Self monitoring**
- **Capacity 22100 mAh**
- **Energy 37.57 Wh**

Compact Charger

Intelligent, fan-cooled charging and storage conditioning for the Smart Battery with automatic battery detection, USB-C updates and diagnostics, and built-in protection against overcurrent, overvoltage, and overheating.
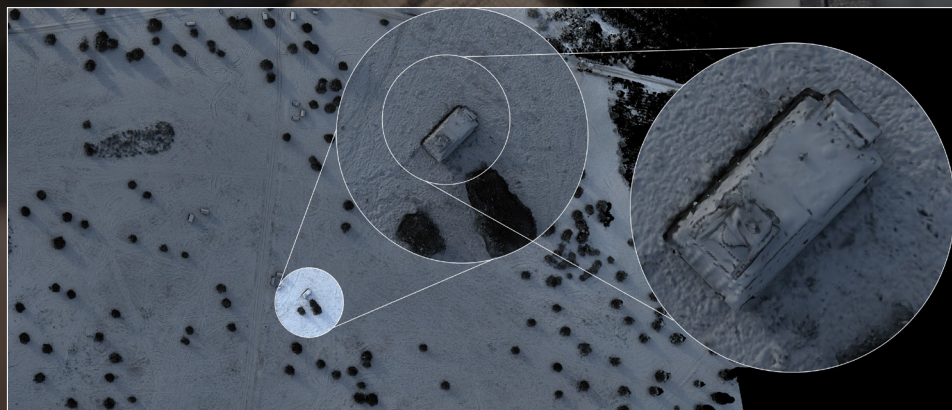
Gimbaled Sensor

Nighthawk2-UZ

IR	1280 x 720 px, 4x Digital
EO	1280 x 720 px, 20x Optical + 2x Digital
Power consumption	6 W
Misc.	KLV - Stream / Geolock / Image stabilization / Object Tracking
Weight	325 g

Visible Channel

Person

Detect		10 km
Recognize		3.4 km
Identify		1.7 km

Vehicle

Detect		23 km
Recognize		7.6 km
Identify		3.8 km

Thermal Channel

Person

Detect		1.5 km
Recognize		0.5 km
Identify		0.25 km

Vehicle

Detect		3.4 km
Recognize		1.1 km
Identify		0.6 km

Acoustic Sensor

Artillery Detection Range
15 km

Small Arms Fire Detection Range
2.5 km

Weight
150 g

Handheld Datalink

Technical Specifications

- Encrypted AES–256
- Silvus Mesh Network
- Latency 7 ms average
- In-motion usability
- MIMO Beamforming Technology

Battery
12 hours

C2 & Video Range
15 km

IP Rating
IP68

Ground Control System

Interoperability

- MISB ST 0902 (STANAG 4609)-compatible live video stream with KLV metadata
- Battle Management System (TAK, Sitaware, Telepak)

- Cursor-on-Target (COT) protocol
- C4ISR-capable
- Robust plug-in architecture

SRoC

⤡	**Touch Display** 7"	↻	**Hot swappable**
🔋	**Battery** 2x swappable battery module	💧	**IP Rating** IP65

Toughbook

⤡	**Touch Display** 14"	↻	**Hot swappable**
🔋	**Battery** up to 38 hours	💧	**IP Rating** IP53

Mission Control Software

MOSAIC UXS

- 360° Link: Seamless Interoperability
- Intelligent Mission Control: AI-Supported Mission Planning & Execution
- Multi-Domain by Design: Orchestrated Collaboration
- Sensor Data Fusion: Coordinated Data Flow
- Scalable Command Interface: For Every Mission Layer
- Open & Modular System: Coordniated Data Flow

A Versatile Solution for Mission-Critical ISR and Public Safety Operations

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Twister is a cutting-edge platform designed for mission-critical applications in military, defense, and public safety sectors, excelling in Intelligence, Surveillance, and Reconnaissance (ISR) with unmatched automation and data capture.

It supports:

- Intelligence, surveillance, and reconnaissance (ISR)
- Defense and security operations (including artillery fire optimization and border protection)
- Emergency response (such as search and rescue and disaster management)

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