Quantum SystemsOur Products

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About Us

About Us

Mission

To serve and protect frontline forces by providing worldclass aerial intelligence.

Vision

To lead the way in aerial intelligence for frontline forces, consistently pushing the boundaries of technology to deliver innovative, reliable, and high-quality solutions.





History

Quantum Systems opened the doors to its Southern California-based facility in 2022 with the purpose of serving defense and security customers throughout North and South America.

The organization was initially founded in 2015 by a visionary team, led by Florian Seibel, in Gilching, Germany that developed a pioneering patent for a vertically launchable unmanned transition aircraft. The global company has achieved a compound annual growth rate of 112 percent over the last five years driven by a commitment to innovation and excellence.

QU/NTFUM SYSTEMS

5. Berlin

6. Madrid

7. Bucharest

Supporting Your Mission with Global Reach and Local Expertise.

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Milestones

Operator Insights

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[Vector] provides the NZ Army with a cutting edge piece of kit which means we can keep pace with the rest of the world in the ever evolving UAS realm. It also allows us to develop and grow our tactics and procedures so that we are more deployable more of the time.

APAC DoD Customer

"

Vector should absolutely be the asset that replaces the Raven. With its ISR capabilities, it's easier to detect targets during limited visibility operations and the thermal camera is very effective.

U.S. DoD Customer



Vector allows me, as the operator, to help my commander find and grid enemy troops and call for fire even before my guys get to that area. It also is great for recon and fire missions because it provides a constant set of eyes on the battlefield, which can be beneficial if we need to quickly plan or adjust mission execution.

U.S. DoD Customer



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Portfolio

Family of Systems

The Family of Systems—featuring the runway-independent Twister (short-range), Vector AI (midrange), and Reliant (long-range) VTOL UAS—ensures warfighters at every echelon have the right ISR asset at the right time. Designed for seamless cross-platform interoperability, these UAS bridge the decision-making gap between small unit operators and higher command by delivering real-time, actionable intelligence across the battlespace.

As a technology leader in aerial intelligence, Quantum Systems continuously equips its Family of Systems with advanced embedded Al capabilities. This enables these platforms to autonomously detect and track targets, visually navigate in GPS-denied environments, and execute swarming maneuvers for real-time coordinated operations. Future-proof by design, our UAS are engineered to evolve with mission needs.







Twister is a rucksack-portable, rugged eVTOL sUAS that delivers rapid, real-time intelligence for squad, platoon, and company-level operations. Combining portability with advanced capabilities, it provides high-resolution video and Al-powered object detection, tracking, and classification, enabling actionable intelligence to enhance situational awareness and accelerate decision-making at every echelon. Deployable in under two minutes with minimal logistical demands, Twister is built to go wherever the operator does. Equipped with the open-interface Quantum Bluenode module, Twister offers full MAVLINK and ATAK compatibility via Cursor on Target (CoT), ensuring interoperability with third-party systems and future-proof customization.

Sensors



NextVision NIGHTHAWK2-UZ

Zoom 20x Optical / 2x Digital



AVT Australia CM62 SERIES

Zoom 23x @720p / 2x Digital

Endurance Link Range

Wingspan

Max. Take-off Weight

Max. Take-Off Altitude (MSL)

Max. Operating Altitude (MSL)

Wind Tolerance

Speed Range

Operating Temperature

Data Link Frequency

90 minutes

15 km

4.1 ft / 1.25 m

8.4 lbs / 3.8 kg

10,500+ ft/3,200+ m

12,140+ ft/3,700+ m

22 mph (ground) 27 mph (air)

42.5 to 47 mph / 19 to 21 m/s

-4 °F to 113 °F/ -20 °C to 45 °C

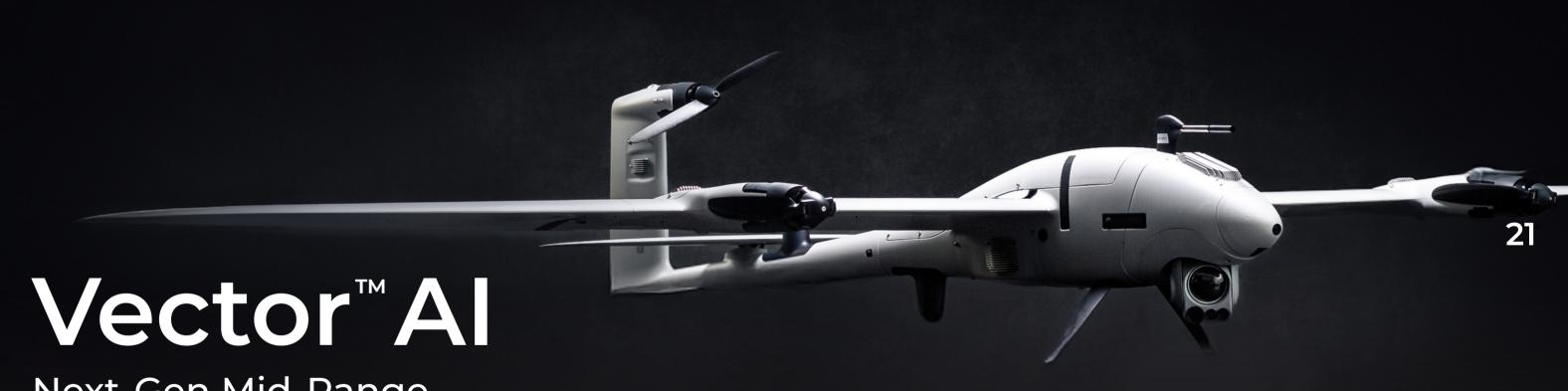
2.2 to 2.5 GHz 4.4 to 4.9 GHz

Key Features

- Rucksack-ready and lightweight design enables easy transport and operation by a single user, optimizing for mobility in tactical scenarios
- Low acoustic noise and visual signature at altitude for operational discretion
- Force multiplier across tactical units with swarm capability, providing overlapping ISR coverage in larger, distributed operations







Next-Gen Mid-Range eVTOL sUAS



The next-generation Vector eVTOL sUAS, Vector AI, is engineered based on previous combat-tested and proven iterations to deliver real-time intelligence and rapid deployment to forward operators in contested environments. Its rugged airframe, increased endurance, and modular payloads enhance mission flexibility. Integrated dual NVIDIA Jetson Orin SOMs for real-time AI/ML processing supports advanced object detection and tracking data that can be shared in real time via ATAK and other mission-integrated platforms. Portable and mission-adaptive, Vector AI endures, evolves, and delivers intelligence anywhere.

Key Features

- Dual-operation design allows operators to switch between multicopter mode for agile reconnaissance and fixed-wing mode for extended ISR as the mission evolves
- → Enables real-time object tracking and seamless integration of advanced ISR and EW sensors with cutting-edge AI processing and an open payload bay
- → Anti-jam GPS, VIO, and SLAM mapping deliver antijamming, autonomous navigation, and resilient communication for EW environments

Sensors



NextVision **RAPTOR**

Zoom

40x Optical / 2x Digital



Trillium HD-40LV Zoom

10x Optical / 2x Digital Endurance

Link Range

Wingspan

Max. Take-off Weight

Max. Take-off Altitude (MSL)

Max. Operating Altitude (MSL)

Wind Tolerance

Speed Range

Operating Temperature

Data Link Frequency

180+ minutes

40 km (SRA) / 80+ km (MRA)

9.2 ft / 2.8 m

21 lbs / 9.5 kg

9.843+ ft / 3.000+ m

13.123+ ft / 4.000+ m

22 mph (ground); 27 mph (air)

34 to 45 mph / 15 to 20 m/s

-4 °F to 122 °F / -20 °C to 50 °C

2.2 to 2.5 GHz; 4.4 to 4.9 GHz



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Reliant is a fixed-wing VTOL UAS built for warfighters operating beyond friendly lines, delivering 10+ hours of persistent ISR for deep reconnaissance, target acquisition, and force protection in contested environments. This Group 2 UAS requires no runways or launch equipment and is operational in under 10 minutes, ensuring rapid deployment in austere environments. It provides covert, real-time intelligence to support rapid, informed decision-making across echelons, ensuring commanders and operators share a common operating picture to close the kill chain faster. With a low-signature profile and Al-powered target recognition, Reliant enables warfighters to detect, identify, and track threats before committing forces, enhancing situational awareness and force protection.

Key Features

- Modular payload compliant, supporting thirdparty ISR, SIGINT, and EW payloads that enable warfighters to detect, identify, and track threats in real time
- Low-signature profile enables covert ISR over land and sea for real-time intelligence to support time-sensitive targeting and force protection
- Easily transportable in a pickup or JLTV with two compact cases for rapid deployment and sustained operations in austere conditions

Sensors



CONTROP MULTI-STAMP

Weight 3.74 lbs / 1.700 a

10x Optical / 4x Digital Zoom

Additional Laser Designator: Capabilities Target Recognition; Geo-location: EO/IR

Surveillance



Trillium HD59-MLVS

Weight 4.2 lbs/1,900 g

Zoom 10x Optical / 4x Digital

Additional Capabilities Laser Pointer: Laser Rangefinder; Laser Designator; Scene Trackina: Geo Trackina:

Target Tracking



Hood Tech Vision Alticam 06EOIR2

Weight 5.57 lbs / 2,530 g

10x (MWIR) / 40x (EO) Zoom

Additional Capabilities

Laser Pointer; Image Stabilization; Target Tracking; VMT; ATR

Endurance

Link Range

Wingspan

Max. Payload Capacity

Max. Take-off Weight

Max. Take-Off Altitude (MSL)

Approx. Cruise Speed

Data Link Frequency

10+ hours

160+ km / LRTA

Optional: SATCOM BLOS

14.1 ft / 4.3 m

11.2 lbs / 5 kg at max. fuel

capacity

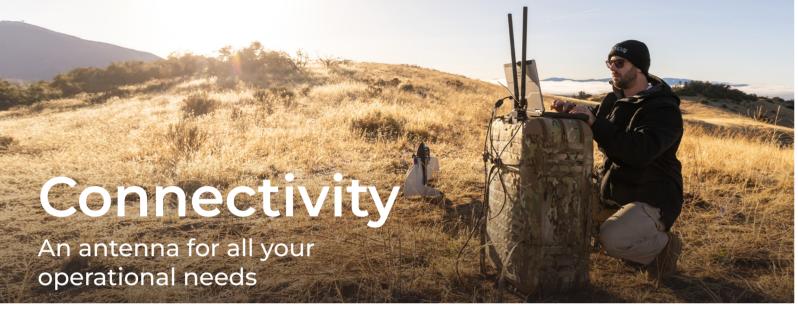
72.8 lbs / 33 kg

9.843 ft / 3.000 m

56 mph / 25 m/s

2.2 to 2.5 GHz 4.4 to 4.9 GHz







Standard Range Antenna (SRA)

Link Range 40 km

Antenna Gain 4dBi @ 2.2 to 2.5 GHz

6dBi @ 4.4 to 4.94 GHz

2.2 to 2.5 GHz Frequency

4.4 to 4.94 GHz

Scan Azimuth: 360° Flevation: 42°

Radio Type

Silvus SC42A0

Native TX Power (variable)

1mW to 8W

Effective TX Power w/ Beamforming

up to 32W

Encryption

DES. AES/GCM 128/256 (FIPS 140-2), Suite B



Mid-Range Tracking Antenna (MRTA)

Link Range 60+ km **Power Source** Vector[™] Battery or

24V DC plug

Scan Range Azimuth: 360°

continuous Flevation: -45° to +95° Radio Type

Silvus SC42A0 2.2 to 2.5 GHz Frequency

Encryption

DES. AES/GCM 128/256 (FIPS 140-2), Suite B

4.4 to 4.94 GHz

Mid-Range Antenna (MRA)

Link Range 80 km Radio Type Silvus SC4480 1mW to 8W

Antenna Gain 12 dBi Native TX Power (user adjustable)

Effective TX Power w/ 2.2 to 2.5 GHz Frequency

Beamforming

Scan Azimuth: 117° Encryption Elevation: 18°

up to 32W

AES-256; DES-56; FIPS 140-3 Level 2



Long-Range Tracking Antenna (LRTA)

Silvus SC44KO Link Range 160 km Radio Type Antenna Gain S-Band: 24 dBi Native TX Power 1mW to 20W (user adjustable)

Frequency 2.2 to 2.5 GHz Effective TX Power w/ W08 ot au

Beamforming

Azimuth: -180° to 180° Encryption Elevation: -10° to 130°

AES-256: DES-56: FIPS 140-3 Level 2











SRoC 7" by UXV Technologies

The SRoC 7" Windows is the universal ground control station for Quantum Systems' Family of Systems, enabling seamless operation across our unmanned platforms. Designed for ultimate reliability, the GCS empowers operators with a compact, modular solution to control assets.

Operating System	Windows 11
Display	7 in WUXGA 1920 X 1200 (323 ppi)

Graphics Intell® Irisl® XE Graphics

CPU Intel® Core™ i5-1345URE 12 MB cache Intel® Core™ i7-1365URE 12 MB cache (13 gen)

2.04 lbs/927 g Weight

Dimensions 10.08 x 5.11 x 2.55 in / 256 x 140 x 65 mm

16/32GB In Band ICC (LPDDR5x) Memory

Chest Mount / 4 Point Harness / **Mounting Types** Vehicle Mounting

Getac X600

Processor / AC adapter

The Getac X600 is a fully rugged, high-performance laptop designed for commanding Quantum Systems' Family of Systems in the most demanding environments. Featuring a large sunlight-readable display, Intel® Core™ processing power, and expansive connectivity options, it delivers seamless control of unmanned platforms in real time.

Operating System	Windows 11 Pro	Weight	9.72 lbs / 4.41 kg
Display	Intel® UHD Graphics	Dimensions	16.22 x 12.68 x 2.07 in / 412 x 322 x 52.5 mm
Graphics	AC adapter (150W, 100-240VAC, 50/60Hz)	Memory	16GB DDR4 <i>Optional:</i> 32GB / 64GB / 128GB
CPU	Intel® Core™ i5-11500HE vPro®	Power	Battery (10.8V, 6900mAh; min.



