

# Vector™ & Scorpion™

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The ultimate 2-in-1 ISR system

# About us

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Quantum Systems is more than just a drone manufacturer; we are an aerial data intelligence company that provides multi-sensor data collection products to government agencies and commercial customers. Our electric vertical take-off and landing (eVTOL) systems boast industry-leading endurance, ease of operation, and reliability.

We believe in dual-use, bringing commercial innovation and speed to the defense industry, field-proven robust

systems to the business world. Customers in the public and private sectors alike use our versatile UAS for defense, security, humanitarian, and geospatial operations.

With a world-class team and nearly a decade of experience in drones, robotics and imagery collection, Quantum Systems has a proven technology stack and a strong track record of building best-in-class sUAS that provide mission-critical data to operators.

# The ultimate 2-in-1 ISR system



## Vector 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 2.8 m | 9.2 ft

Weight < 8.5 kg

Wind 12 m/s | 23 kn



## Advantages of the 2-in-1 system

- Max. Efficacy
- Anti block airspeed sensor
- Easy to use

- Max. launch altitude 3000 m MSL
- Max. operating altitude 4500 m MSL

The 2-in-1 system comprising Vector™ and Scorpion™ shares a common main fuselage, ground controller, data link, sensors, and AI capabilities.

IP54

## Low audio and visual footprint



### Scorpion Multicopter sUAS

Multicopter variant of Vector sUAS ISR platform that uses the same center fuselage to enable quick change between the two platforms. Scorpion excels in providing persistent surveillance in confined urban environments with the ability to hover in place. The gimbaled sensors, encrypted data link and control link remain.

Wingspan	1.37 m   4.5 ft
Weight	< 8.0 kg
Wind	10 m/s   19.4 kn

AI board

Onboard AI Processing  
with NVIDIA Jetson Orin

## Smart Battery

- Self heating
- Self monitoring
- Adaptable to aviation regulation



3h



2h

## Multicharger



Rugged simultaneous charging and discharging of all operating system.



## One person set-up

No tools needed

Easy to carry

- Tactical Backpack carrying case
- Fast deployment - less than 3 mins

## Backpack

Compact portable carrying for the whole tactical deployment system.



Multicam



Black

# Gimbaled Sensors



## Raptor

- IR 1280 x 720 px  
8x Digital  
LWIR uncooled 8 - 14 µm  
17.5° W.FOV - 2.2° D.FOV

- Image Stabilization
- +45° to 135° tilt
- Laser option

- EO 1280 x 720 px  
40x Optical  
2x Digital  
60° WFOV - 1.5° NFOV -  
0.75° DFOV

## Other available sensors

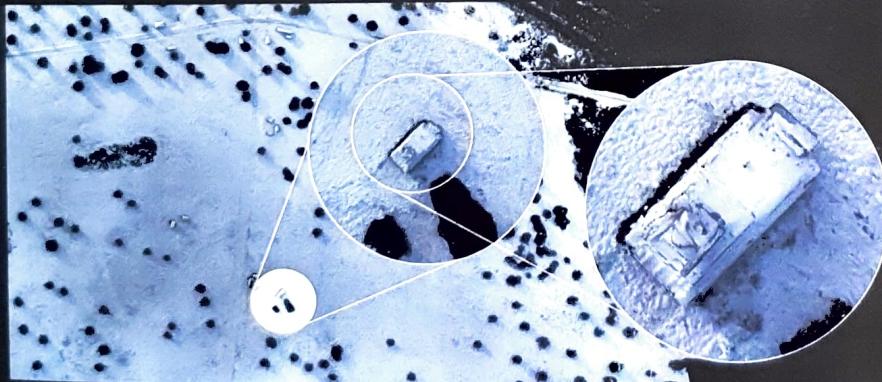
### HD40

- IR 640 x 480 px  
4x Digital  
18.2° W.FOV - 4.6° D.FOV



- EO 1280 x 720 px  
10x Optical  
2x Digital  
54° WFOV - 4.9° NFOV -  
2.5° DFOV

- Image Stabilization
- 360° pan rotation



## Visible Channel

Person	
Detect	10 km
Recognize	6 km
Identify	3 km

Vehicle	
Detect	40 km
Recognize	10 km
Identify	6 km

## Thermal Channel

Person	
Detect	4.5 km
Recognize	1.3 km
Identify	0.6 km

Vehicle	
Detect	6 km
Recognize	1.6 km
Identify	0.8 km

# Datalink



## Technical Specifications

- Datalinks
  - Encrypted AES256
  - Latency 7 ms average
  - In motion usability
  - MIMO Beamforming Technology

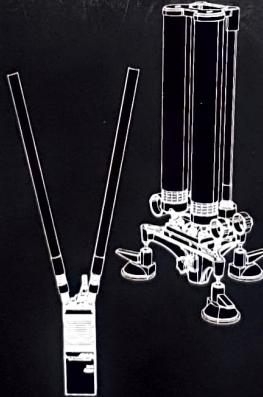


## Handheld

Battery  
12 hours

C2 & Video Range  
15 km

Rugged  
IP 68



## Stationary

Battery  
12 hours

C2 & Video Range  
35 km

Rugged  
IP 68



# Ground Control System



## Interoperability

- MISB ST 0902 (STANAG 4609) compatible live video stream with KLV Metadata
- Combat Management system (ATAK, Sitaware, Telepak)

- CursorOnTarget (COT) protocol
- C4IS capable
- Extreme plug in architecture

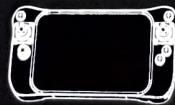
## Skynav

Touch-Display  
7"

Battery  
8 hours

Hot  
swappable

Rugged  
IP 65



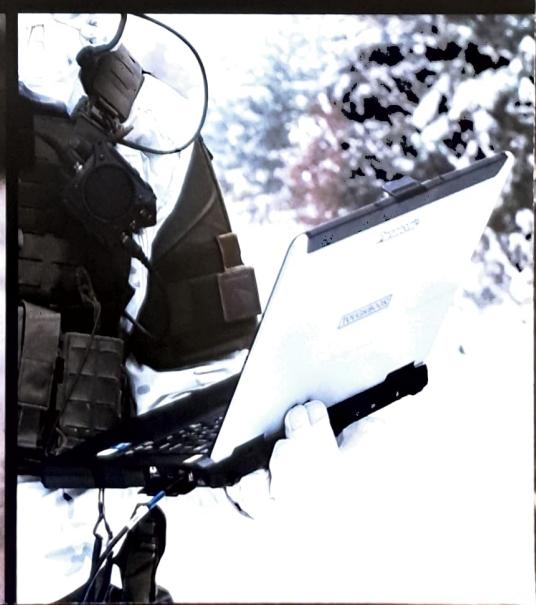
## Toughbook

Touch-Display  
14"

Battery  
up to 38 hours

Hot  
swappable

Rugged  
IP 53

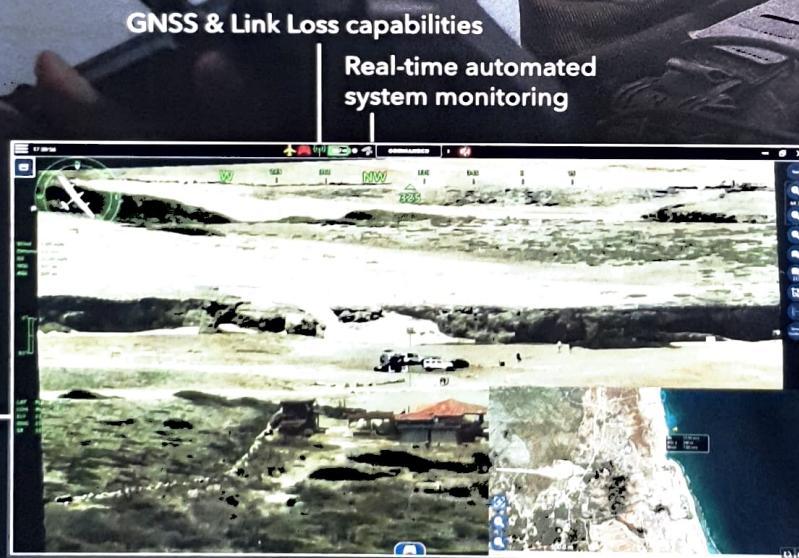


# Mission Control Software

Vector can be operated using QBase Tactical or Auterion Mission Control.

## QBase Tactical

- Intuitive workflow
- Real-time reconnaissance
- Inflight changes
- Target tracking
- GeoLock



## AMC

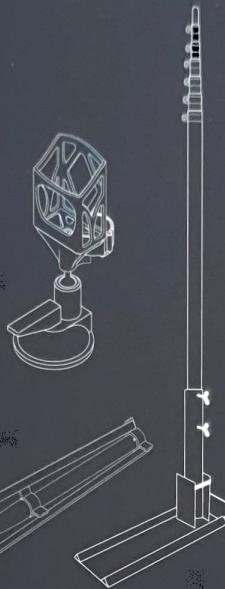
- Pixhawk based
- Highest proof of safety thanks to outstanding flight hours



# Add-Ons

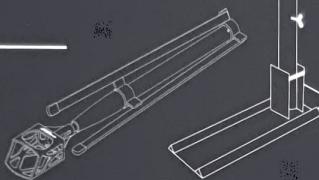
## Mount

- Attachable on every flat surface



## Tripod

- Up to 2.20 m
- Packable
- Tactical & lightweight solution



## Mast

- Up to 6 m
- Maximum range increase
- Rugged & fast deployment



①

## Datalink Switch

- Multiple GCS simultaneously
- Portable and rugged
- Safest transmission due to cable connection



## Data Extension Cable

↔ Connection  
12 m

