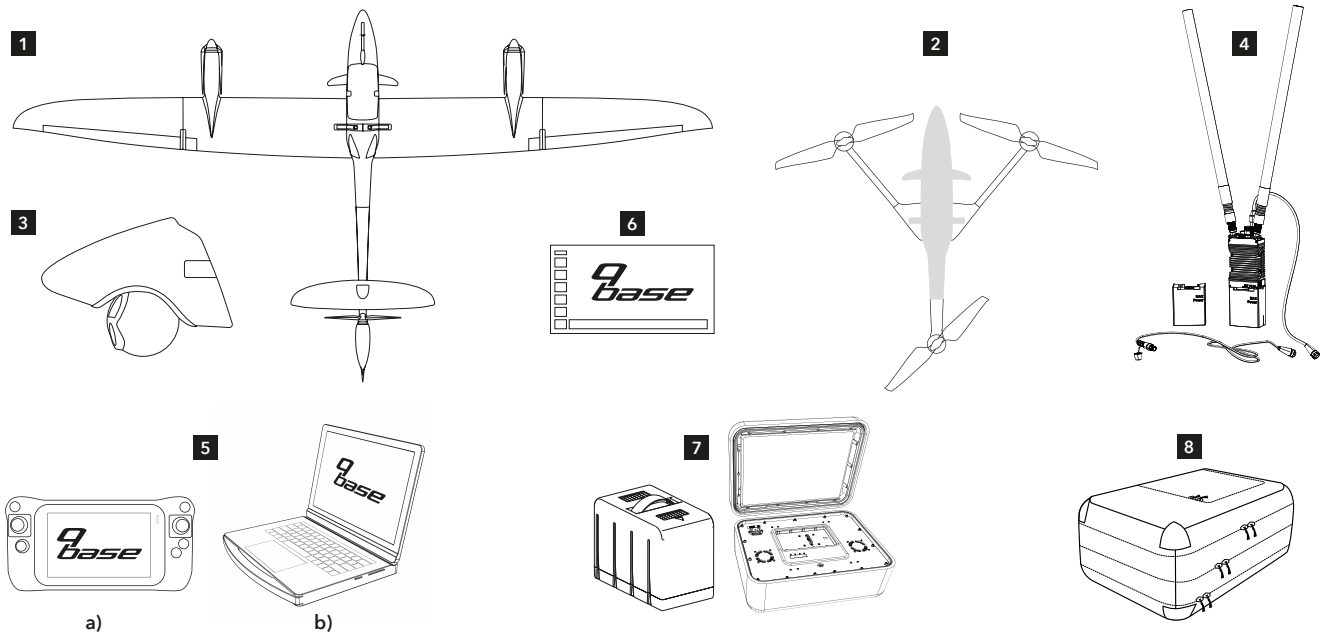


# VECTOR & SCORPION

## 2-in-1 System



## PACKAGE CONTENT

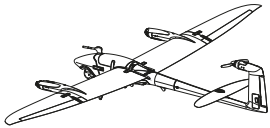
- 1 Vector Air Platform - long range fixed-wing eVTOL**  
Selectable Vector Platform Configurations LTE US, LTE EU, ADS-B, ADS-B LTE US, ADS-B LTE EU.
- 2 Scorpion Kit**  
Allows the conversion between the Vector & Scorpion platform. Allows the Vector Fixed Wing Platform to be converted into a Scorpion Copter Platform.
- 3 Sensors**  
HD40-LV, Raptor. For further information, please check the third page.
- 4 Silvus Handheld 10 W - Mesh IP Encrypted Data Link**  
The data link hardware consists of a robust handheld unit on the ground and an OEM module onboard the UAV. Sector antennas can boost the range up to 25 km (15.5 mi). No tracking antenna or moving parts are necessary. This setup enables an 128/256 bit AES encrypted 10+ Mbit data stream and up to 25 km (15.5+ mi) (sector antennas) video and command & control range.  
The hardware is optimized for tactical applications and comes in ruggedized, IP 67 rated casings. It uses sophisticated MIMO mesh network technology. Data link control is fully integrated into QBase Tactical including link and power management.
- 5 Ground Control Station**
  - a) Skynav Ground Control**  
Ground control tablet platform (incl. two front side joysticks and left and right-side toggle switches)  
7" Active Matrix (TFT) colour LCD 1280x800 (WXGA) LCD with sun light-viewable glove-enabled capacitive touchscreen.
  - b) Rugged Laptop Ground Control**  
Panasonic Toughbook (Intel Core i5, Processor: i5-1145G7, Screen diagonal: 35.6 cm (14 inches), Screen resolution: 1920 x 1080 pixels Touchscreen, RAM memory: 8 GB, Internal memory type: DDR4, IP54 rated, SDRAM, Total storage capacity: 512 GB, Storage media: SSD).
- 6 Mission Software QBase Tactical**  
QBase Tactical assists UAS pilots in conducting live ISR missions covertly in a variety of ways. With the automatic tracking and steering mode, a target can be marked, which the aircraft automatically follows at a programmable distance. Other modes of operation include waypoint missions, control via map and manual input. Ground display of wind direction and aircraft shadow assists the operator in completing the mission undetected. All mission data can be recorded on the GCS and reviewed during or after the mission.
- 7 Smart Battery and Smart Battery Pelicharger**  
The Smart Battery is a 7S5P battery pack composed of 35 x 18650 Li-ion cells and a Battery Management System (BMS). The distribution of the cells is as follows: 7 modules in series (7S) of 5 cells connected in parallel (5P). These modules are attached to the BMS and there they are connected in series through 6 fuses. For safe transportation, they can be disconnected to reach less than 100 Wh for each module.  
  
In order to charge the Smart Batteries, a shockproof Pelicharger is available that charges two Smart Batteries simultaneously.
- 8 Vector Transport Case**  
Black or multicam.

The 2-in-1 System uses the same main fuselage which can be configured as the Vector fixed-wing eVTOL sUAS or as the Scorpion multicopter without any changes to the avionics hardware.

# VECTOR™ FIXED WING VTOL

# SCORPION™ MULTICOPTER

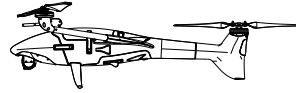
120 Minutes Flight Endurance



## TECHNICAL DATA VECTOR

Take-off Weight	7.4 kg (16.3 lbs)
Max. Flight Time	120 minutes
Command and Control Range	15 km (9.3 mi) optional 25 km (15.5 mi)
Cruise Speed	15 m/s - 20 m/s (29 - 39 kn)
Wind Tolerance (ground)	10 m/s (19.4 kn)
Wind Tolerance (cruise)	12 m/s (23 kn)
Operating Temperature Range	-20°C to 45°C (-4°F to 113°F)
Wingspan	2.80 m (9.2 ft)
Transport Case Dimension	800 mm x 540 mm x 345 mm (31.5" x 21.3" x 13.6")
Transport Case Weight	
Cover only	2.2 kg / 4.85 lb
Case only	3.8 kg / 8.38 lb
Carrying System	2.2 kg / 4.85 lb
Total	8.2 kg / 18.08 lb

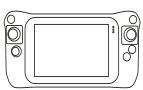
35 Minutes Flight Endurance



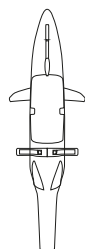
## TECHNICAL DATA SCORPION

Max. Take-off Weight	7.0kg (15.4 lbs)
Max. Flight Time	35 minutes
Command and Control Range	15 km (9.3 mi) optional 25 km (15.5 mi)
Cruise Speed	0 m/s - 15 m/s (0-29 kn)
Wind Tolerance (ground)	10 m/s (19.4 kn)
Wind Tolerance (cruise)	10 m/s (23 kn)
Operating Temperature Range	-20°C to 45°C (-4°F to 113°F)
Wingspan	1.37 m (4.5 ft)
Transport Case Dimension	764 mm x 378 mm x 284 mm (31.1" x 14.9" x 11.2")
Transport Case Weight	
Cover only	1.4 kg / 3.09 lb
Case only	1.9 kg / 4.19 lb
Carrying System	2.2 kg / 4.85 lb
Total	5.5 kg / 12.13 lb

## COMMON ATTRIBUTES



Ground  
Controller



Main  
Fuselage



Sensor  
Capabilities

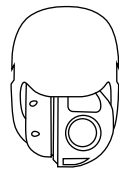


AI  
Capabilities



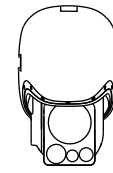
Datalink /  
Radio

## SENSORS



### HD40-LV

VECTOR & SCORPION



### RAPTOR

VECTOR & SCORPION

SYSTEM COMPATIBILITY

EO Zoom	10 x optical 2 x digital	40 x optical 2 x digital
EO Resolution	1280 x 720 px	1280 x 720 px
IR Zoom	4 x digital	8 x digital
IR Resolution	640 x 480 px	1280 x 720 px
Data rate	5 Mb/s (H264)	5 Mb/s (H264)
Power consumption	15 W	10 W
Misc.	GeoLock Object Tracking KLV-Stream 360° Gimbal Movement (without stop) Image Stabilization Laser Illuminator	GeoLock Object Tracking KLV-Stream ±180° Gimbal Movement Image Stabilization

## COMBAT PACKAGE ITEMS

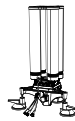
The Combat Package was composed based on gathered experiences from combat sites. It serves as an optimal companion for long-lasting surveillance and reconnaissance missions.

### MESH IP ENCRYPTED DATA LINKS

#### Silvus Stationary 10 W

Art.: 4260574662462

Stationary modem for up to 25 km range between QBase tablet and UAV. It is IP67 ruggedized for 24/7/365 operation in harsh outdoor environments.



#### Silvus Handheld 10 W

Art.: 4260574662448

The Silvus data link enables fast, dynamic data transmission and control between QBase tablet & the UAV. It is IP67 classified and therefore suitable for mesh networks in harsh environments.



### RANGE EXTENSION

#### Silvus Datalink Mast Set

Art.: 4260574662660

Extendable mast (1.5 to 6 m) that is anchored to the ground either by drive-on with a car or by rotating into the ground (secured by 3 ropes). Also included fitting connection ethernet cable and a power extension cable.



### GROUND CONTROL STATION

#### Rugged Laptop Ground Control Set

Art.: 4260574664718



### BACKPACK CARRYING SYSTEM

#### Backpack Straps

Multicam: 4260574662356



SCAN QR CODE AND LEARN MORE



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