Technical Datasheet

REACH

Aircraft

Dimensions

Wingspan	6000 mm
Length	4712 mm
Height (Empennage)	650 mm
Ground Clearance (Fuselage)	295 mm
Ground Clearance (Pusher Propeller)	301 mm

Weight

MTOW (Maximum Takeoff Weight)	91 kg
Empty Airframe	31 kg
RTF (Dry Weight)	54 kg
RTF (Including Fuel & Batteries)	84 kg
Max Payload	7 kg

Flight Performance

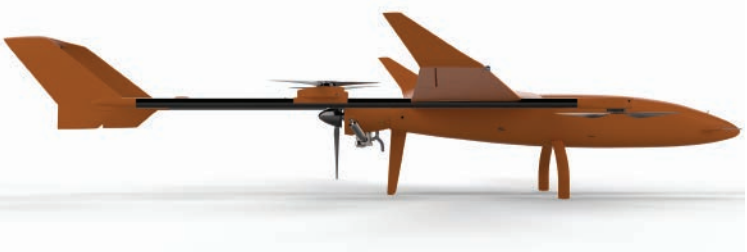
Stall Speed	13-17 m/s
Cruise Speed	25 m/s
VNE (Velocity Never Exceed)	35 m/s
Maximum Crosswind	10-15 m/s
Maximum Service Ceiling	16,000 ft. AMSL
Flight Time (VTOL)	Up to 3 minutes
Flight Time (Fixed Wing)	Up to 20 Hours*
Temperature Range	-10˚ C to +50˚ C

VTOL Propulsion

Motors	T-Motor ALTI U15 II KV100
Motor KV	100 KV
ESC	T-Motor 180A FOC
Propeller	T-Motor 40x13.1 Carbon Fiber
Battery Power Supply	12 x 16000mAh 4S Lipo

Fixed Wing Propulsion

Internal Combustion Engine	HFE International DA100EFI



Command & Control | C²

Dimensions

Length	630 mm
Width	394 mm
Height	208 mm

Weight

Ground Control Station	12 kg
Volumetric Weight	14 kg (Avg) (Shipping Purposes)
Case	Pelican 1555 AIR

Hardware

Intel NUC8	
Storage (SSD)	120 GB
Display	2x ASUS 15.6" HD Monitors
HDMI Out	1x External UHD Compatible
USB	3x External USB 3.0 Ports
Bluetooth	Yes
LAN	1x External LAN port
Cooling	2x Active Cooling Fans
Pilot Controller	Futaba
Keyboard & Mouse	Yes
Main AC Power	120-220v - 19V
Battery Power	2 x 9000mAh 4S Lipo
Intelligent Power Management	Yes

Links

Groundside

Data Telemetry / Video Link: Silvus Radio 4240E

- DES56 (Standard) or AES 256 (Optional)
- Omni Antenna, 4 Section Collinear, 6 dBi Gain
- Cylindrical Sector Antenna, 12 dBi Gain

Control Link: 868 / 915 MHz

- TBS Crossfire
- TBS Diamond Antenna Gain: 2.88dB

Airside

Data Telemetry / Video Link: Silvus Radio 424 0E

- DES56 (Standard) or AES 256 (Optional)
- 2 x Omni Antenna, Half Wave Dipole 2.15dBi Gain

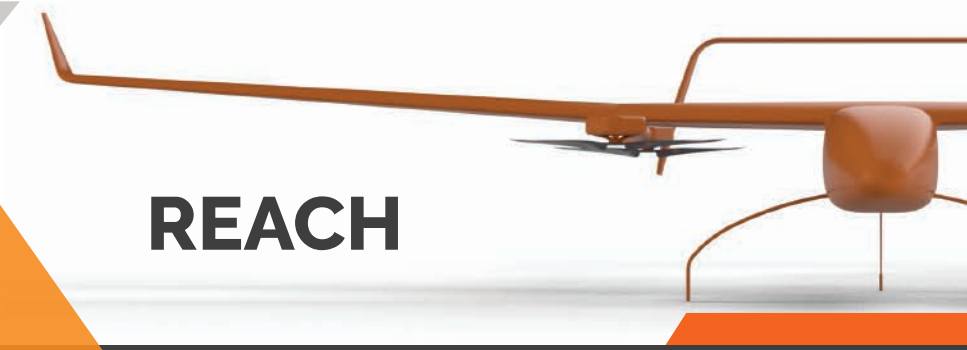
Control Link: 868 / 915 MHz

- TBS Crossfire
- Custom Build 1/4 Wafe dipole antennas 0dBi Gain

ALTI

Technical Datasheet

REACH



Advanced Tracking Antenna Systems

Groundside

Video Link: 2.4GHz

Silvus Radio (SC4200E)
Antenna:
Tracking antenna
OSPT10 (100km) | OSPT25 (150km)

Control Link: 868/915 MHz

TBS Crossfire
TBS Diamond Antenna Gain: 2.88dB

Airside

Video Link: 2.4GHz

Silvus Radio (SC4200E) OEM
2x Omni Antenna, Half Wave Dipole 2.15 dBi
Control Link: 868/915 MHz

TBS Crossfire
Custom Build 1/4 Wafe dipole antennas 0dBi Gain

Transportation Cases

Dimensions

Case 1	
Length	2735 mm
Width	755 mm
Height	827 mm
Case 2	
Length	2585 mm
Width	805 mm
Height	527 mm
Case 3	
Length	1955 mm
Width	1185 mm
Height	367 mm

Please note that the maximum range from point of operation indicated above is with clear Line of Sight (LOS), in other words, there are no major obstructions between the GCS and Aircraft.
*Endurance may vary and is based on final aircraft build and combustion engine options.

Autonomous Flight Modes

> Auto Take-off and Landing
Allowing for fully autonomous VTOL take-off and landing

> VTOL Transition
Seamless autonomous transition between multirotor and fixed-wing modes

> Payload Triggering
Auto trigger payload once or multiple times using Geo Reference, Time or Distance Interval. An override for manual triggering is also available

> Guided Mode
Point and click autonomous mission flight mode. Aircraft will fly to and loiter (circle) at the selected location and altitude

> Loiter
Circle around the point where you started the loiter, holding altitude for efficient flight

> Return to Launch (RTL)
Aircraft will return to the home (take-off) position in Cruise mode until it is within the RTL radius, after which it will transition to Q-Loiter (VTOL) mode and land. Radius and RTL altitude is configurable in Mission Planner

> Various other advanced mission planning and flight features available

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