

Technical Datasheet

TRANSITION

Aircraft

Dimensions

Wingspan	3000 mm
Length	2300 mm
Height (Empennage)	525 mm
Ground Clearance (Fuselage)	170 mm
Ground Clearance (Pusher Propeller)	65 mm

Weight

MTOW (Maximum Takeoff Weight)	18 kg
Empty Airframe	5.8 kg
RTF (Dry Weight)	11.8 kg
RTF (Including Fuel & Batteries)	16.5 kg
Max Payload (Including Power Supply)	1.5 kg

Flight Performance

Stall Speed	13-16 m/s
Cruise Speed	20 m/s
VNE (Velocity Never Exceed)	30 m/s
Maximum Crosswind Speed	10-15 m/s
Maximum Service Ceiling	4000m / 13000 Ft. ASL
Flight Time (VTOL)	Up to 3 minutes
Flight Time (Fixed Wing)	Up to 12 hours
Temperature Range	-10° C to +50° C

VTOL Propulsion

Motors	T-Motor ALTI Custom U7
Motor KV	420 KV
Motor	
Continuous Current	44 A
Continuous Power	1300 W
ESC	T-Motor 80A Flame
Propeller	T-Motor 18x6.1 Carbon Fiber
Battery Power Supply	2 x 9000mAh 4S Lipo

Sound Levels

Ground @ 5m Distance	
Front Idle	65 dB
Left-side Idle	60 dB
Rear Idle	64 dB
Right-side Idle	61 dB
Passing Overhead @ 70m AGL	57 dB
Passing Overhead @ 100m AGL	52 dB
In VTOL Hover @ 20m AGL	70 dB
In VTOL Hover @ 1m AGL	90 dB

Ground Control Station

Dimensions

Length	63 cm
Width	39.4 cm
Height	20.8 cm

Weight

Ground Control Station	12 kg
Volumetric Weight	14 kg (Avg) (Shipping purposes)
Casing Finish	Polypropylene

Hardware

Intel NUC8	i3 3BNH
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	5
LAN	1x External LAN port
Cooling	2x Ventilation Fans
Controller	Futaba
Keyboard & Mouse	Logitech USB/Bluetooth
Power Supply	19V
Battery Power Supply	2 x 9000mAh 4S Lipo
Intelligent Power Management	Yes

Transportation Case

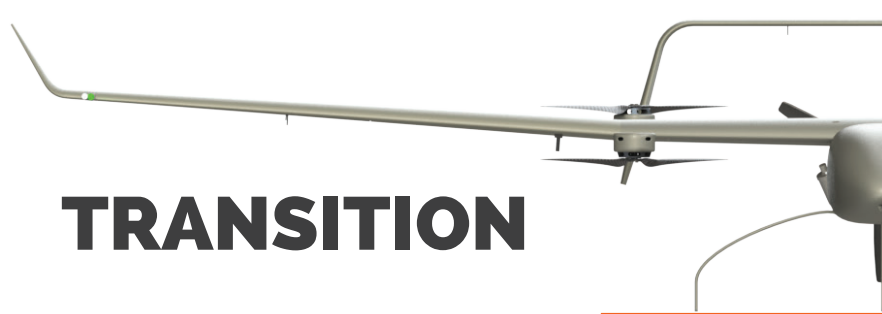
Dimensions

Length	174 cm
Width	104 cm
Height	55 cm

Weight

Aircraft, GCS & Accessories	110 kg
Volumetric Weight	316 kg (Avg) (Shipping purposes)
Casing Finish	Hexa-grip 6mm Wood Panel





Command & Control Link

Standard Option (10km)

Groundside

Data Link: (2.4GHz)

Microhard Modem

Antenna: (2.2 - 2.5 GHz)

Omni Antenna, 4 Section Collinear, 6 dBi Gain

Cylindrical Sector Antenna, 12 dBi Gain

Control Link: (868/915 MHz)

TBS Crossfire

Antenna:

TBS Diamond Antenna Gain: 2.88dB

Airside

Data Link: (2.4GHz)

Microhard Modem

Antenna:

2x Omni Antenna, Half Wave Dipole 2.15 dBi

Control Link: (868/915 MHz)

TBS Crossfire

Antenna:

Custom Build 1/4 Wave dipole antennas 0dBi Gain

Advanced Option (150km)

Groundside

Data Link: (2.4GHz)

Silvus Radio (SC4200E)

Antenna:

Tracking antenna

OSPT10 (100km) | OSPT25 (150km)

Control Link: (868/915 MHz)

TBS Crossfire

Antenna:

TBS Diamond Antenna Gain: 2.88dB

Airside

Data Link: (2.4GHz)

Silvus Radio (SC4200E) OEM

Antenna:

2x Omni Antenna, Half Wave Dipole 2.15 dBi

Control Link: (868/915 MHz)

TBS Crossfire

Antenna:

Custom Build 1/4 Wave dipole antennas 0dBi Gain

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.

Built-in 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