

Longrange VTOL Z8

The Longrange Professional Mapping Drone





145 Km

Max. Flight Distance*



120 Min

Max. Flight Endurance*



15/50 Km

Control Radius*



7Kg

Max. Payload Capacity

Technical Specification

Drone type	No-Tilt-rotor VTOL
Dimension	3800*1550*600mm
Weight (empty)	13kg
Maximum takeoff weight	25kg
Typical payload weight	5kg
Maximum payload weight	7kg
Maximum ascending speed (Cruising)	4m/s
Maximum descending speed (Cruising)	5m/s
Maximum ascending speed (VTOL)	2.5m/s
Maximum descending speed (VTOL)	1.5m/s
Typical cruising speed	83km/h
Maximum flying speed	110km/h
Maximum takeoff altitude (AMSL)	4500m when carrying 2kg Payload 4000m when carrying 5kg Payload
Maximum flying altitude (AMSL)	5200m
Maximum wind resistance	Level 7 in cruise/Level 6 in VTOL
Weather proof	Small rain/snow/fog
Operation temperature	-20~60°C
Material	Carbon fiber & Glass fiber composite
Hovering accuracy	Vertical $\pm 0.2\text{m}$; Horizontal $\pm 1\text{m}$
Takeoff and landing space required	5*5m
Endurance	100 minutes when carrying 5-6kg LiDAR 120 minutes when carrying very light Payload
Flight range	125km when carrying 5-6kg LiDAR 145km when carrying very light Payload





Navigation & Flight Control

Navigation	GNSS+INS
Navigation light	Optional
IMU	2 sets
Flight mode	Autonomous/Semi-autonomous
Safety Assurance	One-button RTL/Out of control RTL/Low battery RTL Emergency Protection Function
FDR	Yes

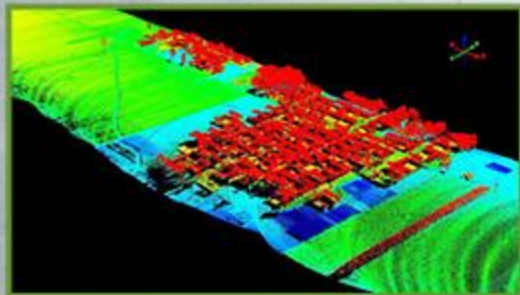
Power System

Motor	Brushless electric motor
ESC	High-power brushless ESC
Propeller	Customized Carbon-fiber Propeller
IP rating	IP56
Battery type	Li-poly/12S
Battery capacity	32000mAh
Battery charger	Fast charger

Data Transmission

Data link	845MHz
Data link range	10-15km/50km as optional

CAMERA & LIDAR PAYLOAD



Laser wavelength	1550nm
Measurement max. distance	1300m
Typical measurement distance	5m-600m
Scanning field	40°/70°
Point density	600k/s
Height measurement accuracy	< 15cm
Relative absolute plane measurement accuracy:	< 20cm
Working temperature	- 22 ℃ - 55 ℃
System weight	6kg
Type of IMU	MEMS IMU
Update frequency	50~1024Hz
Number of GNSS antennas	1~2
Positioning modes	GPSL1/L2, GLONASSL1/L2, Beidou B1/B2
Digital camera Pixel	>42MP
Digital camera FOV	66°/46°

FLIGHT PLAN AND CONTROL SOFTWARE

Z8 is equipped with industrial-level VTOL autopilot as well as professional GNSS. Through SMD own-designed Flight plan and Control Software, it ensures fully autonomous flight including take-off, transit, cruising and landing.

It can support up to 1000 waypoint flight planning as well as 100 waypoint emergency landing.



About YANMU

PT. Yanmu Indonesia (Yanmu) is a distributor and aerial surveys specialist. We market various types of drones and has a goal to become a leader in this field. Yanmu established since 2013 in Sleman, Yogyakarta, Indonesia. Yanmu is an active sole distributor in the marketing of drones for mapping needs, training on the use of drones and various other related services.

Currently, Yanmu has become the exclusive distributor for the products Sensefly, LiDAR USA and SMD.

For products reference and update please subscribe to our news letter at www.yanmu.co.id



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