

VTOL Z6

The Midrange LiDAR & Photogrammetry Drone



200 Km

Max. Flight Distance*



160 Min

Max. Flight Endurance*



15/30 Km

Control Radius*



2.3 Kg

Max. Payload Capacity

Technical Specification

Drone type	Combination VTOL
Dimension	3140*1660*405mm
Weight (empty)	7kg
Maximum takeoff weight	13.5kg
Typical payload weight	1.5kg
Maximum payload weight	2.3kg
Maximum ascending speed (Cruising)	2.5m/s
Maximum descending speed (Cruising)	2.5m/s
Maximum ascending speed (VTOL)	2.5m/s
Maximum descending speed (VTOL)	1.5m/s
Typical cruising speed	76km/h
Maximum flying speed	100km/h
Maximum takeoff altitude (AMSL)	4500m
Maximum flying altitude (AMSL)	5000m
Maximum wind resistance	Level 6 in cruise/Level 5 in VTOL
Weather proof	Small rain/snow/fog
Operation temperature	-10~60°C
Material	Carbon fiber & Glass fiber composite
Hovering accuracy	Vertical ± 0.2 m; Horizontal ± 1 m
Takeoff and landing space required	5*5m
Endurance	70-160 minutes depending on payload
(Tested under ideal condition)	
Non-stop Flight distance	90-200km depending on payload
(Tested under ideal condition)	





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	19 inch hi-performance propeller
IP rating	IP54
Battery type	Li-poly/6S
Battery capacity	Typical 22000mAh*2 = 44000mAh
Battery charger	Fast charger

Data Transmission

Data link	845MHz
Data link range (Tested under ideal condition)	Normally 10-15km Up to 30km(Optional)

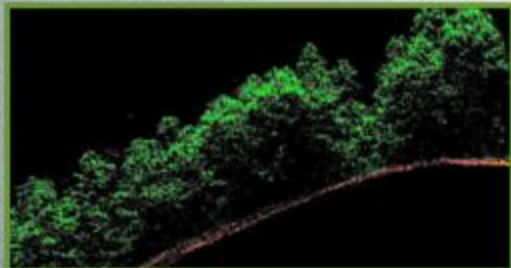
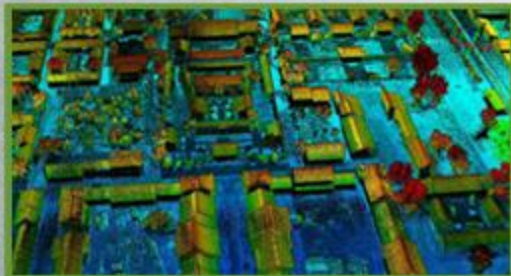
FLIGHT PLAN AND CONTROL SOFTWARE

Z6 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.



CAMERA & LIDAR PAYLOAD



Laser wavelength	905nm
Measurement max. distance	200m ($\rho=20\%$) 250m ($\rho=80\%$)
Typical measurement distance	50m-150m
Scanning field	360 ° x 30 ° (16 lines / 32 lines)
Point density	320k/s or 640k/s
Echos	2
Height measurement accuracy	< 10cm
Relative absolute plane measurement accuracy:	< 15cm
Working temperature	- 20 °C - 70 °C
System weight	1.2kg (No Camera, No Battery)
Type of IMU	MEMS IMU
Update frequency	200Hz
Number of GNSS antennas	1
Positioning modes	GPS L1/L2, GLONASS L1/L2, Beidou B1/B2
Digital camera(Optional) Pixel	>24MP
Digital camera(Optional) FOV	66°/46°

Reasons to Choose VTOL Z6

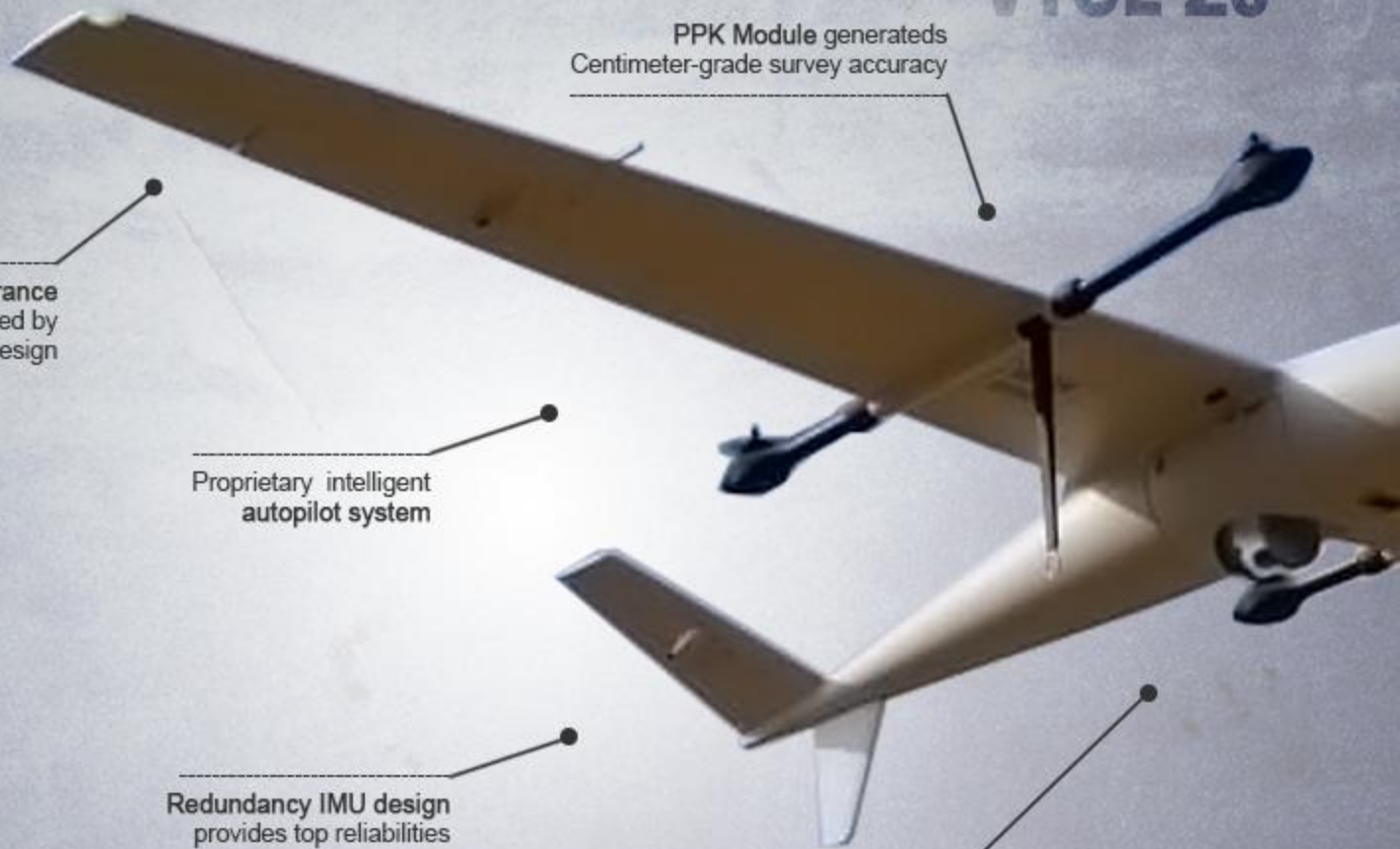
PPK Module generates
Centimeter-grade survey accuracy

Ultra-long endurance
supported by
best Aerodynamics Design

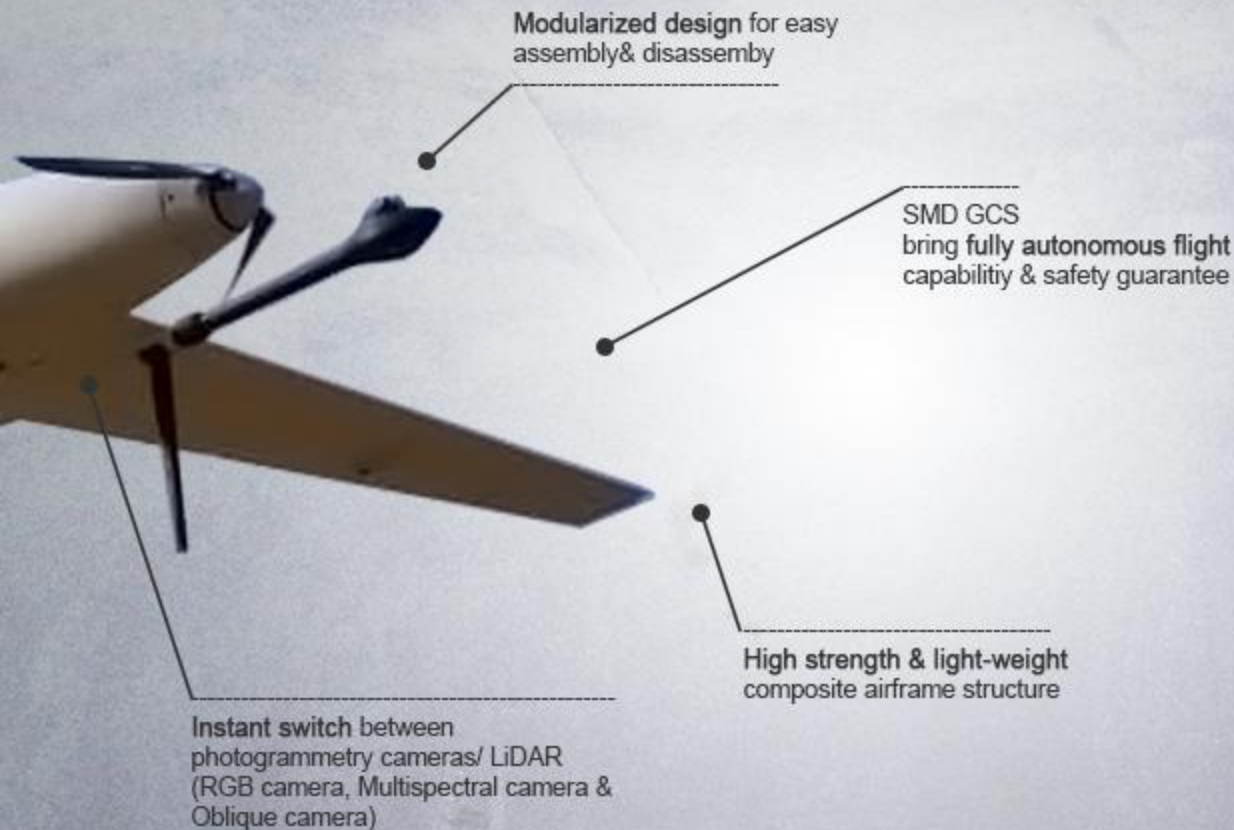
Proprietary intelligent
autopilot system

Redundancy IMU design
provides top reliabilities

VTOL Technology
for zero site Limitation



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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

