BETA

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RAYBE

BANGGA BUATAN INDONESIA

Small RPAS with VTOL capability suitable for mid-range missions

SPECIFICATIONS

AIRFRAME

Materials	Advanced composite
Wingspan	1830 mm
Planform	1270 mm
Center Module	810 mm
Empty Weight	3650 gr
MTOW	5200 gr
Max. Payload Weight	500 gr
Hardcase	95x65x35 cm

PERFORMANCE

Flight Time *At 0 m MSL take-off elevation*	Up to 55 min.
Telemetry Range	Up to 7 km
Coverage Range *At 120 m AGL flight altitude*	Up to 160 ha
Max. Speed	22 m/s
Cruise Speed	17 m/s
Stall Speed	14 m/s

RAYBE is designed to meet real operating conditions in tropical environments and the challenges of aerial mapping operations in difficult areas

SYSTEM

- Electric Brushless Motor
- 6s 10500 mAH (250 Wh) Battery
- Autopilot IMU + GPS
- Airspeed Sensor

PAYLOAD SELECTIONS

- 24 MP APS-C RGB Camera
- 42 MP Full Frame RGB Camera
- RedEdge-P Multispectral Camera
- EMLID Reach RTK Module Kit

The vehicle can be equipped with a wide selection of sensors for mapping missions, such as RGB and multispectral cameras, as well as PPK for increased accuracy

MAPPING RESULTS

24 MP RGB *With 25 mm lens*	**105 ha at 1.9 cm/px GSD** 120 m altitude	**335 ha at 5.5 cm/px GSD** 350 m altitude
24 MP RGB *With 35 mm lens*	**80 ha at 1.3 cm/px GSD** 120 m altitude	**245 ha at 3.9 cm/px GSD** 350 m altitude
42 MP RGB *With 35 mm lens*	**115 ha at 1.5 cm/px GSD** 120 m altitude	**365 ha at 4.5 cm/px GSD** 350 m altitude
Multispectral *MicaSense RedEdge-P*	**105 ha at 8.2 cm/px GSD** 120 m altitude	**330 ha at 23.9 cm/px GSD** 350 m altitude
Accuracy with PPK *Without GCP*	**Horizontal down to 1 cm** **Vertical down to 2 cm** Absolute accuracy (RMS)	**Horizontal down to 0.003%** Relative accuracy
Accuracy without PPK *Without GCP*	**3 to 5 m** Absolute accuracy (RMS)	**Horizontal 0.15%** Relative accuracy

Reference conditions :
One flight from 700 m MSL take-off elevation, 30 m transition altitude, 17 m/s flight speed, <2 m/s wind speed, 28 ℃ air temperature, and 70% side lap.

Health monitoring for sugarcane plantation

Emergency response during the 2022 Mount Semeru eruption

SCAN ME

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