

Technical Specification of Coaxial rotor MAV platform for development of flight controller and GNSS denied navigation algorithms

Specification		Compliance (Yes/No)	Reference Page No.
Configuration	Coaxial rotor		
Control mechanism	Variable Rotor collective and cyclic pitch for both rotors		
Max. Rotor diameter	800 mm		
Rotor material	Honeycomb composites		
Airframe	Composites		
Max. dimensions with blades removed	600mm x 200mm		
MTOW	7 kg		
Max. Payload	2.5 kg (Removable design)		
Empty weight (w/o battery)	< 2.5 kg		
Drive system	Geared or direct drive with BLDC motors		
Power	Li-ion 12S Battery pack (Removable)		
Max operable altitude	3000m above MSL		
Endurance at 3000m	15 minutes		
Programmable flight controller development board	Attitude, position and heading control Customisable collective/cyclic mixing (CCPM) PPM output In flight tuning capability with remote gain adjustment		
GNSS receiver	GPS, GLONASS, NavIC + RTK support		
Guidance Tools	Programmable planner with waypoint navigation		
Ground station	2.4GHz Radio transceiver with telemetry		
Radio control & telemetry range (LOS)	1000m		
Gust resistance	Class 8 (18m/s)		

Terms and conditions	Compliance (Yes/No)	Reference Page No.
1. Mandatory to submit Design files (CAD) and part drawings		
2. Controller board architecture and telemetry/guidance interface to be submitted		
3. Payload tray and battery should be removable easily		

(Note: It is mandatory for the bidders to provide the compliance statement in tabular column format along with catalogue page number (comply/not comply) for the Above points with document proof as required. Failing which bidders will be technically disqualified)