HELIPLANE LRS

Technical Specifications :

Aircraft

Version	Version 240	Version 340
Drone type	UAV QuadPlane VTOL (Vertical Take-Off and Landing)	UAV QuadPlane VTOL (Vertical Take-Off and Landing)
Max take-off weight	7.5 kg	15.5 kg
Frame	High quality composite	High quality composite
Weight (empty)	4.65 kg	7.4 kg
Max. payload weight	1 kg	3 kg
Wingspan	240 cm	340 cm
Dimensions	Wingspan 240cm, Lenght 115cm, Height 30cm	Wingspan 340cm, Lenght 150 cm, Height 30 cm
Transport case	127 x 50 x 48 cm	135 x 60 x 45 cm
Fast assembly time	1 minute	1 minute
Battery capacity	27000 mAh	2 x 30000 mAh
Battery charger	1200W : 2 outputs	1200W : 2 outputs
Operational cruise speed	72-80 km/h (20-24 m/s)	72-90 km/h (20-25 m/s)
Max. speed	108 km/h (30 m/s)	118 km/h (33 m/s)
Wind resistance	36 km/h (10 m/s)	40 km/h (11 m/s)
Maximum flight time	110 min	210 min
Flight time with Sony RX1RII	100 min	200 min
Max linear distance	145 linear km	300 linear km
Max. Service Ceiling ASL	4000m	4000m
Operating temperature	-10 to +50 °C (14°F to 122 F)	-10 to +50 °C (14°F to 122 F)
Protection Index	IP54	IP 56
Transmission Range	CE 12 km – FFC 20 km	CE 12 km – FFC 20 km
Onboard GNSS GPS	GPS/QZSS L1C/A, L2C GLONASS L1OF, L2OF BeiDou B1I, B2I Galileo E1-B/C, E5b	GPS/QZSS L1C/A, L2C GLONASS L1OF, L2OF BeiDou B1I, B2I Galileo E1-B/C, E5b
Absolute accuracy	From 1 to 3 cm (x-y) and 5cm in (z)	From 1 to 3 cm (x-y) and 5cm in (z)
Projection system	Configurable, default is WGS84 UTM Zone 32 North	Configurable, default is WGS84 UTM Zone 32 North
Flight planner	Mission planner or QGC QGroundControl	Mission planner or QGC QGroundControl
Centimetric positioning	PPK and RTK (direct geo-referencing)	PPK and RTK (direct geo-referencing)
Air traffic analysis	Integrated with the autopilot and in real time	Integrated with the autopilot and in real time
GNSS data processing	RTKlib or Innohub	RTKlib or Innohub
Take-off and landing	Fully automatic (manual optional)	Fully automatic (manual optional)
Flight management	Fully automatic (manual optional)	Fully automatic (manual optional)
Navigation by GNSS and inertial units	Fully automatic	Fully automatic
Navigation by GNSS and inertial units	Navigation and flight management. Sensor management. Communication and data recording	Navigation and flight management. Sensor management. Communication and data recording
Emergency procedures	Manual or automatic triggering	Manual or automatic triggering

Remote controller and Telemetry

Radio and telemetry module	Herelink Controller	Herelink Controller
Radio frequency	2.4GHz ISM	2.4GHz ISM
Transmission range	FCC 20km CE 12km	FCC 20km CE 12km
Video tranmission resolution (optional)	720p@30fps - 1080p@30/60fps	720p@30fps - 1080p@30/60fps

Compatible Sensors

RGB Camera:	**IcamRGB-61MP** Number of pixels : 61MP Sensor size:35.7×23.8mm 40mm or 56mm lens Exposure time :≤0.8s **Sony RX1R II** 42.4 MP BSI CMOS sensor Lens1x 35mm f/2 -22 Sensitivity (ISO range)100 - 25600 ISO	**IcamRGB-61MP** Number of pixels : 61MP Sensor size:35.7×23.8mm 40mm or 56mm lens Exposure time :≤0.8s **Sony RX1R II** 42.4 MP BSI CMOS sensor Lens1x 35mm f/2 -22 **Sensitivity (ISO range)100 - 25600 ISO**
Thermal Camera:	**IT25-4x** Thermal resolution: 640 x 480 Lens: f=25mm Thermal Zoom: x4	**IT25-4x** Thermal resolution: 640 x 480 Lens: f=25mm Thermal Zoom: x4 **ITC-Duo-40x** Thermal Resolution: 640 x 512 Lens: f=19mm Video Resolution: 1920*1080 Optical pixel count: 25MP Optical Zoom: x40
Multispectral Camera	**MicaSense RedEdge-MX** Blue, green, red, red edge, near infrared (global shutter, narrow band) with RGB Camera, Global Shutter, aligned with all bands.	**MicaSense RedEdge-MX** Blue, green, red, red edge, near infrared (global shutter, narrow band) with RGB Camera, Global Shutter, aligned with all bands.
Lidar	/	**Riegl Minivux-3UAV** 100 kHz/200 kHz/300 kHz Laser PRR selectable Measurement rate up to 200,000 measurements/sec Scan speed up to 100 scans/sec

Highlights:

- Quick assembly wing, modular design, no tools required.
- Complete assembly in 1 min.
- Removable and easy to access payload holder.
- Space-saving and easy to carry flight case.