

2.3 Technical Specifications

Item	Data
Dimensions	
Motor-Motor Diagonally	1148mm
Propeller Size - Top	26.0"x8.0"
Propeller Size - Bottom	22.0"x10.0"
Weights	
Dry Weight	8000g
12S 14000mAh Lilon Battery Assy	2475g
Battery Weight (Four Packs)	9900g
Maximum Payload	7000g
Maximum Take-Off Weight (MTOW)	24900g
Performance	
Maximum Speed - Loiter Mode (Software Capped)	50km/h
Maximum Speed - AltHold Mode	>90km/h
Maximum Endurance - 0.0kg Payload	55min
Maximum Endurance - 3.0kg Payload	45min
Maximum Endurance - 5.0kg Payload	35min
Maximum Endurance - 7.0kg Payload (MTOW)	25 minutes
Maximum Ferry Range ¹	Do not exceed 25km
Maximum Operating Wind Speed ²	40km/h
Minimum Operating Ambient Temp ³	0°C
Maximum Operating Ambient Temp	45°C
Electrical	
Operating Voltage - Nominal	44.0VDC
Operating Voltage - Full Battery	50.4VDC
Operating Voltage - Low Battery	38.0VDC
Operating Voltage - Depleted Battery	35.0VDC
Motors	Brushless DC 100-150KV
Operating RPM	1000-4000rpm
Energy Storage	4 x Dual 7000mAH Batteries
Battery Chemistry	NCR18650GA Lithium Ion
Battery Configuration	12S2P x 2 x 4
Max Total Capacity	56,000mAH
Avionics	
Flight Control Processor	180MHz STM32F427 (ARM Cortex-M4F)
Mission Computer Processor	2.0GHz Exynos5422 (ARM Cortex-A15)
Mission Computer Memory	2GB LPDDR3
Mission Computer Storage	32GB
Internal GNSS Receiver	Here2 (NEO-M8N) or Septentrio AsteRx-m2
External GNSS Receiver	Zubax GNSS2 (MAX-M8Q)

¹Ferry operation should be operationally limited until Aeronavics has conducted sufficient flight testing to validate correct operation over longer distances.

²Operation of the aircraft in windy conditions is largely dependent on pilot experience: while an experienced pilot is able to operate the ISR60 in winds gusting 55-60km/h, Aeronavics recommends that new pilots not attempt to operate in winds greater than 25km/h until they are confident with the aircraft.

³Low ambient temperatures degrade battery performance. Quoted endurance values are at 25°C. For operation below 10°C, battery warming jackets and other operational measures are required; contact Aeronavics Customer Support for addition information.

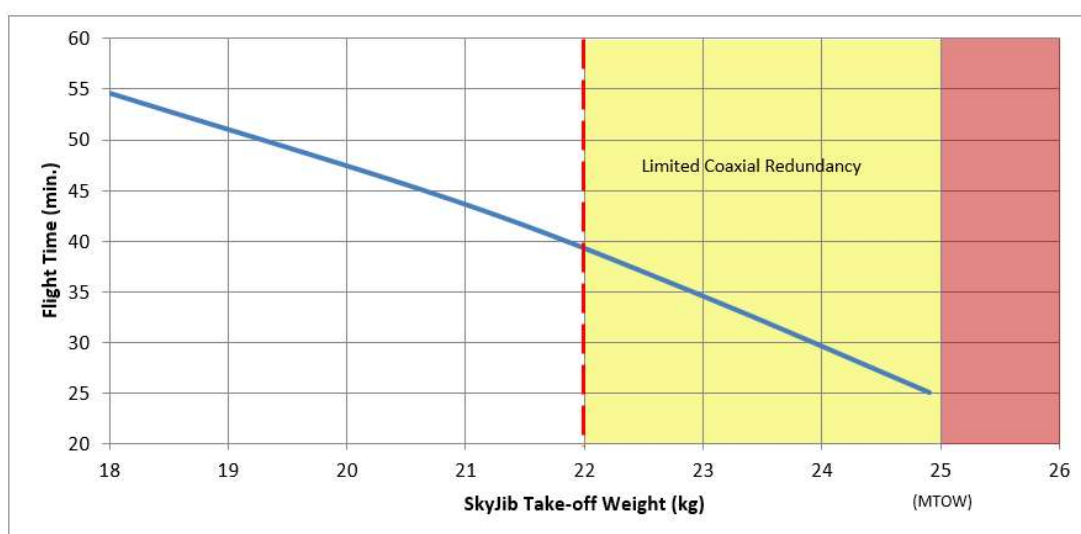


Figure 2.1: SkyJib Flight Endurance (20% battery capacity remaining)

Radio

Radio Make	Microhard
Radio Model	pDDL2450 or pMDDL2450 or pDDL900
Encryption	Up to AES128
Maximum Transmit Power - pMDDL2450	30dBm (1W)
Maximum Transmit Power - pDDL900	30dBm (1W)
Maximum Data Rate - pMDDL2450	25Mb/s
Maximum Data Rate - pDDL900	25Mb/s
Range (30dbi Ant gain) - pMDDL2450 (2400MHz)	20km
Range (10dBi Ant Gain) - pDDL900 (2400MHz)	3km
Range (10dBi Ant Gain) - pDDL900 (900MHz)	3km

2.4 Network Configuration

The aircraft uses IP networking for communications between key components, including for communications between the payload, flight controller, and ground station.

This system is highly flexible, allowing for a wide range of custom sensors to be integrated, and for a range of novel communication and control topologies. Aircraft systems use the 10.10.0.0/16 address range for networking, and expect all devices present on the network to use a specific static addressing scheme - the network is expected to be secure, and communications *within* the network may be unencrypted.

NOTE

Interfering with the aircraft's network configuration may result in unexpected behaviour, or impact aircraft reliability and/or security. Contact Aeronavics Customer Support for further information prior to making any changes.

At the time of writing, address allocations for commonly accessed system elements are as follows:

Item	IP Address
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