



Robota Eclipse Specifications





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Property	Condition	Value
Flight Time	No payload @ 11m/s. *variables apply.	50 minutes
Speed Range	No payload	13 m/s to 20 m/s 25kts to 39 kts
Max wind speed	No payload	29 mph
Weight	No payload, ready to fly	2.4 lbs / 1 kg
Weight with Sony	Ready to fly w/ Sony RX100	3 lbs / 1.36 kg
Wing Span		54 inches / 137cm
Length		14 inches / 35 cm
Payload bay		5 x 2.4 x 1.2 inches 12.7 x 6 x 3 cm
Shipping/Transport		35.32" x 17.88" x 17.88" 89 x 45 x 45 cm
Payload Power		5v @ 1A
Control Link Frequency		900 mhz
Control Link Range	Std Antennas, line of sight	3 miles / 4.8km
Manual Control Frequency		2.4 ghz
Manual Control Range	Line of sight	875 yard / 800 m
Board Temperature Range	Measured on Autopilot	0 to 70c
Payload Options	*Precision not available with selected payloads	Sony RX100 Micasense Red Edge Sequoia by Parrot* Flir Vue Pro*
RX100 Resolution	Sampling at 400ft agl	2.85 cm/pixel 1.12 in/pixel
Coverage Area	Per flight, RX100,400ft agl 60% overlap	400 acres 161 hectares



RedEdge Resolution	Sampling at 400ft agl	8.1 cm/pix
Coverage Area	Per flight, RedEdge,400ft agl 70% overlap	200 acres 80 hectares
Launch Options		Hand Launch
Land Options		Short skid with air brake
Storage Temperature	Batteries should be at room temp	0 to 50 c
Operating Temperature	Ambient	-10 to 38 c
Image geolocation accuracy	RTK base connected with fixed solution on vehicle. Relative to base position	.13 ft, 4cm, 1.57 in

RTCM Messages

RTK precision is achieved by means of a local or network base station. The local base must be configured to output RTCM 3.x messages while connected to the GCS via 115200 baud Serial or Bluetooth. A network base station can also be used over NTRIP by configuring the login credentials on the GCS. At least one base message, one GPS observables and one GLONASS observables message should be enabled. The following are supported RTCM 3.2 Input Messages:

- 1001** L1-only GPS RTK observables
- 1002** Extended L1-only GPS RTK observables
- 1003** L1/L2 GPS RTK observables
- 1004** Extended L1/L2 GPS RTK observables
- 1005** Stationary RTK reference station ARP
- 1006** Stationary RTK reference station ARP with antenna height
- 1007** Antenna descriptor
- 1009** L1-only GLONASS RTK observables
- 1010** Extended L1-only GLONASS RTK observables
- 1011** L1/L2 GLONASS RTK observables
- 1012** Extended L1/L2 GLONASS RTK observables
- 1074** GPS MSM4
- 1075** GPS MSM5
- 1077** GPS MSM7
- 1084** GLONASS MSM4
- 1085** GLONASS MSM5



- 1087** GLONASS MSM7
- 1124** BeiDou MSM4
- 1125** BeiDou MSM5
- 1127** BeiDou MSM7
- 1230** GLONASS code-phase biases