REMOTE OBSERVATION OVER TIME (DRONE IN A BOX)- PHASE 1

Task 2 Report - Market Analysis of Drone in a Box (DiaB) Systems

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I. Drone-in-a-Box (DiaB) Market Overview

This market research provides a comprehensive overview of DiaB systems detailing their specifications, features, and capabilities. This report was compiled utilizing available data from the internet and outreach to the manufacturers. All manufacturers were contacted via email to obtain cost information and system specifications, but at the time this report was delivered some manufacturers did not yet respond with pricing and specifications. Manufacturer system specifications are compiled in the Appendix.

Cost, flight time, and country of origin vary widely with the USA, Israel, China, and Belgium being prominent manufacturers. Flight times range from 25 to 50 minutes, while costs span from $10,000 to $128,000 where data is available. Communication options like 5G, LTE, and RF are prevalent, ensuring robust connectivity. Payload features such as swappable payloads and RGB cameras are widely supported, enhancing operational flexibility. The weight of unmanned aerial systems (UASs) is between 3.1 lbs. and 34.6 lbs., with box weights varying significantly from lightweight (75 lbs.) to heavy infrastructure (5,411 lbs.).

UAS demonstrate diverse specialized functionalities. Sensor options include optical gas imaging, gamma radiation detection, and hyperspectral capabilities, catering to industrial, security, and environmental applications. Payload versatility, such as aerial delivery systems, spotlights, and microphones, broadens their usability in logistics and public safety. Unique attributes like water and dust resistance and solar power integration highlight adaptability in varied environments. Overall, the market research underscores the technological range and specialization in the DiaB market and needs across various sectors. The specifications and cost change rapidly but this information is up to date and accurate as of March 2025.

II. DiaB System Comparison

Company/Product	Origin Country	Cost	Flight Time (min.)	Box Weight (lbs.)
Airobotics/Optimus	Israel	-	40	5412
Asylon/Guardian	USA	-	25	-
Atlas/AtlasNEST	Latvia	-	32	198
Azur/Skeyetech E2	France	-	27	-
Brinc/Station	USA	$100,000	42	340
Da-Jiang Innovations Dock	China	$34,000	41	231
Da-Jiang Innovations Dock2	China	$16,000	50	75
Da-Jiang Innovations Dock 3	China	$23,400	54	121
DroneMatrix/Yacob	Belgium	$67,000	25	-
DroneMatrix/Yeti	Belgium	$128,000	40	-
Percepto/Air Max	Israel	-	-	-
Percepto/Air Max OGI	Israel	-	-	-
Skycharge/Skyport	Germany	$52,000	-	-
Skydio/Dock	USA	-	40	240
Sunflower Labs/ Beehive System	Switzerland	$10,000	15	77

III. DiaB System Summaries

III.a. Airobotics Optimus

Company	Airobotics	Specification	Value
Product	Optimus	Box Temperature Range (Fahrenheit)	-
Country of Origin	Israel	UAV IP Rating	52
Cost	-	Box IP Rating	54
Swappable Payload	Yes	UAV Communication	5G, LTE, RF
RGB	Yes	Box Communication	5G, LTE, RF
IR	Yes	UAV Weight (lbs..)	22.05

Multispectral	No	Box Weight (lbs..)	5411.56
LiDAR	Yes	Box Power	-
Other Sensor/Payload Options	Aerial Delivery	UAV Parachute	Yes
Flight Time (minutes)	40	Box Dimensions	-
Flight Range (miles)	9.9	Box Battery Backup	-
UAV Wind Resistance (mph)	-	Notes	Box battery capacity is 11 with autonomous battery swapping
UAV Temperature Range (Fahrenheit)	-	Website	https://www.airoboticsdrones.com/optimus/

III.b. Asylon Guardian

Company	Asylon	Specification	Value
Product	Guardian	Box Temperature Range (Fahrenheit)	-
Country of Origin	USA	UAV IP Rating	45
Cost	-	Box IP Rating	-
Swappable Payload	Yes	UAV Communication	-
RGB	Yes	Box Communication	-
IR	Yes	UAV Weight (lbs.)	-

Multispectral	No	Box Weight (lbs.)	-
LiDAR	No	Box Power	-
Other Sensor/Payload Options	-	UAV Parachute	Yes
Flight Time (minutes)	25	Box Dimensions	-
Flight Range (miles)	-	Box Battery Backup	-
UAV Wind Resistance (mph)	-	Notes	Box comes with autonomous battery swapping
UAV Temperature Range (Fahrenheit)	-	Website	https://asylonrobotics.com/solutions/security-drones/

III.c. Atlas AtlasNEST

Company	Atlas	Specification	Value
Product	AtlasNEST	Box Temperature Range (Fahrenheit)	-4 to 86
Country of Origin	Latvia	UAV IP Rating	44
Cost	-	Box IP Rating	53
Swappable Payload	Yes	UAV Communication	-
RGB	Yes	Box Communication	WiFi, Ethernet, LTE
IR	Yes	UAV Weight (lbs.)	3.5

Multispectral	No	Box Weight (lbs.)	198.4
LiDAR	No	Box Power	220 - 230V
Other Sensor/Payload Options	-	UAV Parachute	No
Flight Time (minutes)	32	Box Dimensions	98.4 x 43.2 x 20.4 in
Flight Range (miles)	4.9	Box Battery Backup	-
UAV Wind Resistance (mph)	34.7	Notes	Box requires installation of 6.6 x 9.8 foot pad and comes with autonomous battery swapping
UAV Temperature Range (Fahrenheit)	-4 to 131	Website	https://www.atlasuas.com/products/atlasnest

III.d. Azur Skeyetech E2

Company	Azur Drones	Specification	Value
Product	Skeyetech E2	Box Temperature Range (Fahrenheit)	-
Country of Origin	France	UAV IP Rating	65
Cost	-	Box IP Rating	-
Swappable Payload	Yes	UAV Communication	4G, 5G, LTE
RGB	Yes	Box Communication	-

IR	Yes	UAV Weight (lbs.)	-
Multispectral	Yes	Box Weight (lbs.)	-
LiDAR	No	Box Power	-
Other Sensor/Payload Options	Optical Gas Imaging, Gamma Radiation, Gas Detector	UAV Parachute	No
Flight Time (minutes)	27	Box Dimensions	-
Flight Range (miles)	-	Box Battery Backup	3 hr
UAV Wind Resistance (mph)	31.1	Notes	0.3 inches/hr rain resistance
UAV Temperature Range (Fahrenheit)	14 to 122	Website	https://www.azurdrones.com/solution/skeyetech/

III.e. Brinc Station

Company	Brinc Drones	Specification	Value
Product	Station	Box Temperature Range (Fahrenheit)	-4 to 113
Country of Origin	USA	UAV IP Rating	X4
Cost	$99,999.00	Box IP Rating	X5
Swappable Payload	Yes	UAV Communication	4G, LTE
RGB	Yes	Box Communication	Ethernet, Starlink
IR	Yes	UAV Weight (lbs.)	-

Multispectral	No	Box Weight (lbs.)	340
LiDAR	No	Box Power	120V
Other Sensor/Payload Options	Aerial Delivery, Spotlight, Loudspeaker, Microphone, Glass Breaker	UAV Parachute	Yes
Flight Time (minutes)	42	Box Dimensions	40 x 68 x 68 in
Flight Range (miles)	-	Box Battery Backup	-
UAV Wind Resistance (mph)	-	Notes	Can be used with solar power
UAV Temperature Range (Fahrenheit)	-	Website	https://brincdrones.com/responder/

III.f. Da-Jiang Innovations Dock

Company	Da-Jiang Innovations	Specification	Value
Product	Dock	Box Temperature Range (Fahrenheit)	-31 to 122
Country of Origin	China	UAV IP Rating	55
Cost	$34,000.00	Box IP Rating	55
Swappable Payload	No	UAV Communication	-
RGB	Yes	Box Communication	-
IR	Yes	UAV Weight (lbs.)	8.3

Multispectral	No	Box Weight (lbs.)	231.4
LiDAR	No	Box Power	100-240V AC
Other Sensor/Payload Options	-	UAV Parachute	No
Flight Time (minutes)	41	Box Dimensions	31.5 x 34.8 x 41.9 in
Flight Range (miles)	4.3	Box Battery Backup	5 hr
UAV Wind Resistance (mph)	26.8	Notes	Recharge in 25 min
UAV Temperature Range (Fahrenheit)	-4 to 122	Website	https://enterprise.dji.com/dock

III.g. Da-Jiang Innovations Dock 2

Company	Da-Jiang Innovations	Specification	Value
Product	Dock2	Box Temperature Range (Fahrenheit)	-13 to 113
Country of Origin	China	UAV IP Rating	54
Cost	$15,600.00	Box IP Rating	55
Swappable Payload	No	UAV Communication	-
RGB	Yes	Box Communication	-
IR	Yes	UAV Weight (lbs.)	3.1

Multispectral	No	Box Weight (lbs.)	75
LiDAR	No	Box Power	100-240V AC
Other Sensor/Payload Options	-	UAV Parachute	No
Flight Time (minutes)	50	Box Dimensions	22.4 x 23 x 18.3 in
Flight Range (miles)	6.2	Box Battery Backup	5 hr
UAV Wind Resistance (mph)	17.9	Notes	Battery charge from 20% to 90% in 32 min
UAV Temperature Range (Fahrenheit)	-4 to 113	Website	https://enterprise.dji.com/dock-2

III.h. Da-Jiang Innovations Dock 3

Company	Da-Jiang Innovations	Specification	Value
Product	Dock3	Box Temperature Range (Fahrenheit)	-22 to 122
Country of Origin	China	UAV IP Rating	55
Cost	$23,400.00	Box IP Rating	56
Swappable Payload	No	UAV Communication	-
RGB	Yes	Box Communication	-
IR	Yes	UAV Weight (lbs.)	4.1

Multispectral	No	Box Weight (lbs.)	121
LiDAR	No	Box Power	240V AC
Other Sensor/Payload Options		UAV Parachute	No
Flight Time (minutes)	54	Box Dimensions	25 x 29 x 30 in
Flight Range (miles)	6.2	Box Battery Backup	5 hr
UAV Wind Resistance (mph)	36	Notes	Battery charge from 15% to 95% in 27 min
UAV Temperature Range (Fahrenheit)	-4 to 122	Website	https://enterprise.dji.com/dock-3

III.h. DroneMatrix Yacob

Company	Drone Matrix	Specification	Value
Product	Yacob	Box Temperature Range (Fahrenheit)	-
Country of Origin	Belgium	UAV IP Rating	-
Cost	$67,000.00	Box IP Rating	43
Swappable Payload	Yes	UAV Communication	4G, 5G, LTE, RF SATcom
RGB	Yes	Box Communication	WiFi, Ethernet, 4G, 5G, Starlink, SATcom
IR	Yes	UAV Weight (lbs.)	10.7

Multispectral	Yes	Box Weight (lbs.)	-
LiDAR	No	Box Power	-
Other Sensor/Payload Options	Spectrometer, Sniffer, Pyranometer, Hyperspectral, Speaker	UAV Parachute	No
Flight Time (minutes)	25	Box Dimensions	59.1 x 43.3 x 40.2 in
Flight Range (miles)	6.2	Box Battery Backup	6 hr
UAV Wind Resistance (mph)	26.8	Notes	Operates in light rain up to 0.2 in/hr, light snowfall or hail
UAV Temperature Range (Fahrenheit)	14 to 104	Website	https://www.nugroup.no/products/yacob

III.i. DroneMatrix Yeti

Company	Drone Matrix	Specification	Value
Product	Yeti	Box Temperature Range (Fahrenheit)	-
Country of Origin	Belgium	UAV IP Rating	44
Cost	$128,000.00	Box IP Rating	43
Swappable Payload	Yes	UAV Communication	4G, 5G, LTE, RF, SATcom
RGB	Yes	Box Communication	WiFi, Ethernet, 4G, 5G, Starlink, SATcom

IR	Yes	UAV Weight (lbs.)	34.6
Multispectral	Yes	Box Weight (lbs.)	-
LiDAR	No	Box Power	-
Other Sensor/Payload Options	Spectrometer, Sniffer, Pyranometer, Hyperspectral, Speaker	UAV Parachute	No
Flight Time (minutes)	40	Box Dimensions	86.6 x 51.9 x 68.9 in
Flight Range (miles)	12.4	Box Battery Backup	6 hr
UAV Wind Resistance (mph)	26.8	Notes	Operates in light rain up to 0.2 in/hr, light snowfall or hail
UAV Temperature Range (Fahrenheit)	14 to 104	Website	https://www.nugroup.no/products/yeti

III.j. Percepto Air Max

Company	Percepto	Specification	Value
Product	Air Max	Box Temperature Range (Fahrenheit)	-
Country of Origin	Israel	UAV IP Rating	-
Cost	-	Box IP Rating	-
Swappable Payload	No	UAV Communication	Dual LTE
RGB	Yes	Box Communication	LTE
IR	Yes	UAV Weight (lbs.)	22

Multispectral	No	Box Weight (lbs.)	-
LiDAR	No	Box Power	-
Other Sensor/Payload Options	-	UAV Parachute	Yes
Flight Time (minutes)	-	Box Dimensions	-
Flight Range (miles)	-	Box Battery Backup	-
UAV Wind Resistance (mph)	-	Notes	Box has been tested to withstand hurricane level winds
UAV Temperature Range (Fahrenheit)	-	Website	https://percepto.co/drone-in-a-box/air-max/

III.k. Percepto Air Max OGI

Company	Percepto2	Specification	Value
Product	Air Max OGI	Box Temperature Range (Fahrenheit)	-
Country of Origin	Israel	UAV IP Rating	-
Cost	-	Box IP Rating	-
Swappable Payload	No	UAV Communication	Dual LTE
RGB	Yes	Box Communication	LTE
IR	No	UAV Weight (lbs.)	23

Multispectral	No	Box Weight (lbs..)	-
LiDAR	No	Box Power	-
Other Sensor/Payload Options	Optical Gas Imaging	UAV Parachute	Yes
Flight Time (minutes)	-	Box Dimensions	-
Flight Range (miles)	-	Box Battery Backup	-
UAV Wind Resistance (mph)	-	Notes	Box has been tested to withstand hurricane level winds
UAV Temperature Range (Fahrenheit)	-	Website	https://percepto.co/drone-in-a-box/air-max-ogi/

III.l. Skycharge Skyport

Company	Percepto2	Specification	Value
Product	Air Max OGI	Box Temperature Range (Fahrenheit)	-
Country of Origin	Israel	UAV IP Rating	-
Cost	-	Box IP Rating	-
Swappable Payload	No	UAV Communication	Dual LTE
RGB	Yes	Box Communication	LTE

IR	No	UAV Weight (lbs.)	23
Multispectral	No	Box Weight (lbs.)	-
LiDAR	No	Box Power	-
Other Sensor/Payload Options	Optical Gas Imaging	UAV Parachute	Yes
Flight Time (minutes)	-	Box Dimensions	-
Flight Range (miles)	-	Box Battery Backup	-
UAV Wind Resistance (mph)	-	Notes	Box has been tested to withstand hurricane level winds
UAV Temperature Range (Fahrenheit)	-	Website	https://percepto.co/drone-in-a-box/air-max-ogi/

III.m. Skydio Dock

Company	Percepto2	Specification	Value
Product	Air Max OGI	Box Temperature Range (Fahrenheit)	-
Country of Origin	Israel	UAV IP Rating	-
Cost	-	Box IP Rating	-
Swappable Payload	No	UAV Communication	Dual LTE
RGB	Yes	Box Communication	LTE
IR	No	UAV Weight (lbs.)	23

Multispectral	No	Box Weight (lbs.)	-
LiDAR	No	Box Power	-
Other Sensor/Payload Options	Optical Gas Imaging	UAV Parachute	Yes
Flight Time (minutes)	-	Box Dimensions	-
Flight Range (miles)	-	Box Battery Backup	-
UAV Wind Resistance (mph)	-	Notes	Box has been tested to withstand hurricane level winds
UAV Temperature Range (Fahrenheit)	-	Website	https://percepto.co/drone-in-a-box/air-max-ogi/

III.n. Sunflower Labs Beehive System

Company	Sunflower Labs	Specification	Value
Product	Beehive System	Box Temperature Range (Fahrenheit)	-4 to 122
Country of Origin	Switzerland	UAV IP Rating	-
Cost	$10,000.00	Box IP Rating	-
Swappable Payload	No	UAV Communication	-
RGB	Yes	Box Communication	Ethernet, LTE
IR	No	UAV Weight (lbs.)	3.4

Multispectral	No	Box Weight (lbs.)	77.2
LiDAR	No	Box Power	110/220V AC
Other Sensor/Payload Options	-	UAV Parachute	No
Flight Time (minutes)	15	Box Dimensions	38.6 x 31.5 x 24.8 in
Flight Range (miles)	0.3	Box Battery Backup	1 hr
UAV Wind Resistance (mph)	20	Notes	1:2 flight time to recharge time (2 min flight = 4 min recharge
UAV Temperature Range (Fahrenheit)	14 to 104	Website	https://sunflower-labs.com/

IV. Conclusions

There are a number of considerations beyond just specifications and cost for current DiaB systems on the market. From talks with Skydio, it seems that their Dock system will not be broadly available on the market until Q2 of 2026. There may also be supply chain delays and/or cost increases due to the current import tariffs. Finally, there may be security concerns with certain non-allied country equipment. Some of these security concerns will be evaluated in Task 4 of this project. We will investigate the network traffic from the DiaB systems with and without additional software that is advertised as containing the network traffic to domestic servers.

In terms of specifications, performance, and cost, the combination of a Dock 2 or Dock 3 with network security software may be the most affordable and capable option. The cost is likely to increase a minimum of 10% in the near-term due to tariffs and current market supply demands. If MDT intends to acquire a system prior to Q2 of 2026 and the security and/or IT concerns dictate that non-allied system is inadvisable, then another option may be to purchase a drone agnostic system such as the Skyport to use with MDT's existing fleet of Skydio UAS.

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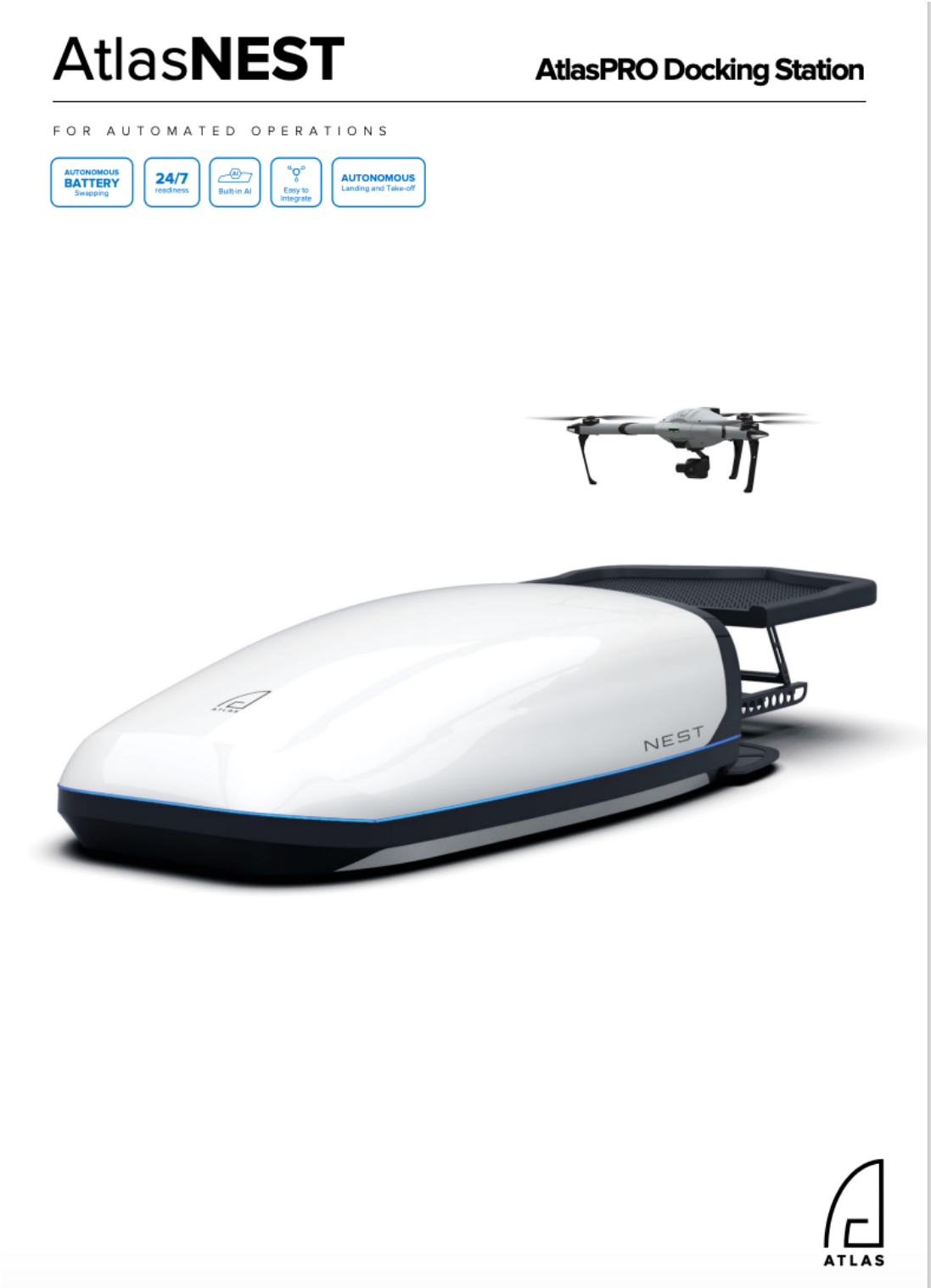
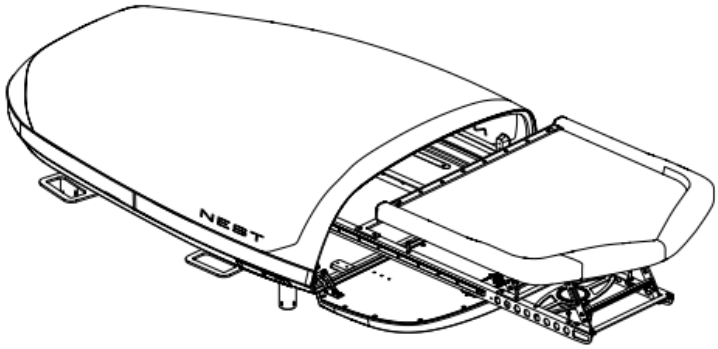
V. Appendix: Manufacturer Specifications



SPECIFICATIONS

www.atlasuas.com

AtlasNEST Fully Autonomous Docking Station



Dimentions

System Dimensions	160 x 96 x 42 cm / 63" x 38" x 17"
Deployed Dimensions	250 x 110 x 52 cm / 98" x 43" x 21"
Weight	<90 kg (Two-Man Carry) / <200 lbs (Two-Man Carry)

Performance

Takeoff	Automated, typ. response 70 sec
Landing	Automated
Drone Interaction	Battery replacement & Launch typ. 180 sec
Launch Type	Vertical takeoff & Landing
Battery Charge Time	100% in 1HR
Number of Batteries	4

Communication

AtlasPRO C2 Methods	2.2 - 2.7 GHz
AtlasPRO C2 Range	up to 8 km LOS / up to 5 mi LOS
AtlasNEST C2 Methods	Local WIFI, Ethernet 100 Mbit min., LTE Module
Transmitted	128/256BIT AES Encryption of all transmitted data
Onboard	WPA3 SAE (CCMP)
Systems Equipped	2.2 - 2.7 GHz
Mesh Options	Available

Enviromental

Temp. Range	-20°C to +30°C / -4°F to 86°F
With External Thermal Management System	-40°C to +55°C / -40°F to 131°F
IP Rating	IP53 designed
Internal Systems	Internal climate control system with humidity/temperature monitoring & regulation

SPECIFICATIONS

www.atlasuas.com

AtlasNEST Fully Autonomous Docking Station

Operational Requirements

Power Source	120 - 230V / 50 - 60Hz
Setup Pad Dimensions	200 x 300 cm / 79" x 118"
Internet Connection	Required for remote access options, 100 Mbit connection min.
Maintenance Schedule	10K Cycle, 3 month maintenance check
Additional Configurations	External AC / Heater, Backup Power Supply (60min battery time), LTE

All product specifications are subject to change without notice

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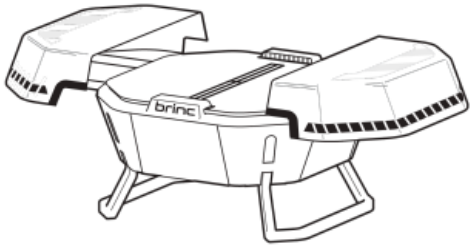
brinc

station



Specifications

CATEGORY	SPECIFICATION	DETAILS
Station	Size When Opened	Height: 40 in Width: 143.5 in Depth: 68 in
	Size When Closed	Height: 40 in Width: 68 in Depth: 68 in
	Weight	340 lbs
	Operational Temperature	-4°F to 113°F / -20°C to 45°C
	Weather Resistance	IPX5
	Standing Water	Resistant up to 13 inches. Critical components elevated above ground level
	Corrosion Resistance	High, corrosion resistant coating used on all exposed metal components
	Drone Bay Camera	1080p 30fps, livestreams to LiveOps
HVAC System	Cooling Rated Capacity	9,000 BTU/h
	Heating Rated Capacity	9,000 BTU/h
	Fan Speed Modes	3 (low/medium/high)
	Noise Level	<40 dBa
Safety Systems	Indicator Lights	Status LEDs on all 4 corners
	Audible Buzzer	95 dBa
	Emergency Stop	Latch off, twist release

1

Power System	Voltage	120 VAC (standard US plug, NEMA 5-15)
	Current	15A
Networking	Hardwired Internet	RJ45 Ethernet Port
	Wireless Connectivity	WiFi 802.11

2

Da-Jiang Innovations Dock 2

Total Weight	34 kg (without aircraft) The actual product weight may vary due to differences in batch materials and external factors.
Dimensions	Dock Cover Opened: 1228×583×412 mm (L×W×H) Dock Cover Closed: 570×583×465 mm (L×W×H) The above data does not include the height of the wind speed gauge (145 mm) but includes the height of the mounting base brackets (55 mm).
Input Voltage	100-240 V (AC), 50/60 Hz
Input Power	Max 1000 W
Operating Temperature	-25° to 45° C (-13° to 113° F) When the ambient temperature is below -20° C (-4° F), the dock is in standby status, and the aircraft cannot perform flight tasks.
Ingress Protection Rating	IP55
Number of Drones Accommodated	1
Max Allowable Landing Wind Speed	8 m/s
Max Operating Altitude	4000 m
Receiving Frequency of RTK Base Station Satellite	Simultaneously receive: GPS: L1 C/A, L2 BeiDou2: B1I, B2I, B3I BeiDou3: B1I, B3I GLONASS: L1, L2 Galileo: E1, E5B

Positioning Accuracy of RTK Base Station	Horizontal: 1 cm + 1 ppm (RMS) Vertical: 2 cm + 1 ppm (RMS)

Dock - Charging Performance

Output Voltage	28 V DC
Charging Time	32 minutes The data was measured when charging the aircraft (when powered off) from 20% to 90% in a 25° C (77° F) environment.

Dock - Video Transmission

Video Transmission System	O3 Enterprise
Operating Frequency	2.4000-2.4835 GHz 5.725-5.850 GHz
Antenna	Built-in 4 antennas, 2T4R, supports intelligent switching
Transmitter Power (EIRP)	2.4 GHz: < 33 dBm (FCC); < 20 dBm (CE/SRRC/MIC) 5.8 GHz: < 33 dBm (FCC); < 14 dBm (CE); < 23 dBm (SRRC)

Dock - Air Conditioning System

Operating Voltage	28 V DC
Air Conditioning Type	TEC Air Conditioning

Dock - Backup Battery

Battery Capacity	12 Ah
Output Voltage	12 V
Battery Type	Lead-acid battery

Battery Life	> 5 hours Measured with a fully charged backup battery in a 25° C (77° F) environment. After a power outage, the dock does not support functions like aircraft charging, air conditioning, dock cover heating, and wind speed gauge heating. Always check malfunctions promptly.

Dock- Network Access

Ethernet Access	10/100/1000Mbps adaptive Ethernet port

Dock - Sensor

Wind Speed Sensor	Supported
Rainfall Sensor	Supported
Ambient Temperature Sensor	Supported
Water Immersion Sensor	Supported
In-Cabin Temperature Sensor	Supported
In-Cabin Humidity Sensor	Supported

Dock - Security Camera (External)

Resolution	1920×1080
Field of View (FOV)	151°
Auxiliary Light	Auxiliary White Light

Dock - Security Camera (Internal)

Resolution	1920×1080
Field of View (FOV)	151°
Auxiliary Light	Auxiliary White Light

Battery Life	> 5 hours Measured with a fully charged backup battery in a 25° C (77° F) environment. After a power outage, the dock does not support functions like aircraft charging, air conditioning, dock cover heating, and wind speed gauge heating. Always check malfunctions promptly.

Dock- Network Access

Ethernet Access	10/100/1000Mbps adaptive Ethernet port

Dock - Sensor

Wind Speed Sensor	Supported
Rainfall Sensor	Supported
Ambient Temperature Sensor	Supported
Water Immersion Sensor	Supported
In-Cabin Temperature Sensor	Supported
In-Cabin Humidity Sensor	Supported

Dock - Security Camera (External)

Resolution	1920×1080
Field of View (FOV)	151°
Auxiliary Light	Auxiliary White Light

Dock - Security Camera (Internal)

Resolution	1920×1080
Field of View (FOV)	151°
Auxiliary Light	Auxiliary White Light

Dock- Lightning Protection

AC Power Port	20 kA (rated value), meets EN 61643-11 Type 2 and IEC 61643-1 Class II protection level requirements
Ethernet Port	10 kA (I_{total}), meets EN/IEC 61643-21 Category C protection level requirements

Dock - Supported Software

Applications	DJI Pilot 2 (connects to DJI Dock 2 via DJI RC Pro Enterprise for deployment and commissioning)
Cloud Platform	DJI FlightHub 2 (supported by default) Third-party cloud platforms (accessed through DJI Cloud API)

Dock - Expansion Capability

Open Protocol	DJI Cloud API
Edge Computing	Supports data communication with external switches

Da-Jiang Innovations Dock 3

Total Weight	55 kg (without aircraft) The actual product weight may vary due to differences in batch materials and external factors.
Dimensions	Dock Cover Opened: 1760×745×485 mm (L×W×H) Dock Cover Closed: 640×745×770 mm (L×W×H) All data includes the RTK module width (160 mm), wind speed gauge height (145 mm), and mounting base brackets (58 mm).
Input Voltage	100-240 V (AC), 50/60 Hz
Input Power	Max 800 W
Operating Temperature	-30° to 50° C (-22° to 122° F)
Ingress Protection Rating	IP56
Number of Drones Accommodated	1
Max Allowable Landing Wind Speed	12 m/s
Max Operating Altitude	4500 m
Positioning Accuracy of RTK Base Station	Horizontal: 1 cm + 1 ppm (RMS) Vertical: 2 cm + 1 ppm (RMS)

Dock - Charging Performance

Output Voltage	35 V DC
Charging Time	27 minutes The data was measured when charging the aircraft (when powered off) from 15% to 95% in a 25° C (77° F) environment.

Dock - Video Transmission

Operating Frequency	2.400-2.4835 GHz 5.150-5.250 GHz (CE: 5.170-5.250 GHz) 5.725-5.850 GHz The supported operating frequency bands and their corresponding availability vary by country/region. For details, please refer to local laws and regulations.
Antenna	Built-in 9 antennas, 2T4R, supports intelligent switching
Transmitter Power (EIRP)	2.4 GHz: < 33 dBm (FCC), < 20 dBm (CE/SRRC/MIC) 5.2 GHz (CE: 5.170-5.250 GHz): < 23 dBm (FCC/CE) 5.8 GHz: < 33 dBm (FCC); < 14 dBm (CE); < 30 dBm (SRRC)

Dock - Air Conditioning System

Operating Voltage	48 V DC
Air Conditioning Type	Compressor-based air conditioning

Dock - Backup Battery

Battery Capacity	12 Ah
Output Voltage	12 V
Battery Type	Lead-acid battery
Battery Life	> 4 hours Measured with a fully charged backup battery in a 25° C (77° F) environment. After a power outage, the dock does not support functions like aircraft charging, air conditioning operation, dock cover heating, and wind speed gauge heating. Please restore power promptly.

Dock- Network Access

Ethernet Access	10/100/1000Mbps adaptive Ethernet port
4G Access	Requires DJI Cellular Dongle 2 Sold separately. This service is not available in some countries and regions. Please consult your local dealer for details.

Dock - Sensor

Wind Speed Sensor	Supported
Rainfall Sensor	Supported
Ambient Temperature Sensor	Supported
Water Immersion Sensor	Supported
In-Cabin Temperature Sensor	Supported
In-Cabin Humidity Sensor	Supported

Dock - Security Camera (External)

Resolution	1920×1080
Field of View (FOV)	151°
Auxiliary Light	Auxiliary White Light

Dock - Security Camera (Internal)

Resolution	1920×1080
FOV	151°
Auxiliary Light	Auxiliary White Light

Dock- Lightning Protection

AC Power Port	20 kA (rated value), meets EN 61643-11 Type 2 and IEC 61643-1 Class II protection level requirements
Ethernet Port	10 kA (I_{total}), meets EN/IEC 61643-21 Category C protection level requirements

Dock - Supported Software

Applications	DJI Enterprise app (used with Android phones for deployment and commissioning)
Cloud Platform	FlightHub 2 FlightHub 2 On-Premises Version FlightHub 2 FlightHub Sync DJI Cloud API

DRONEMATRIX

OPERATING DRONESOLUTIONS

Introduction to DroneMatrix

As a European high-tech company, DroneMatrix (founded 2015) implements a vision for the integration of smart technologies and automated remote piloted aerial robotics (Drone-In-A-Box systems or DIABs) in the business and military world. The capabilities of these flying 'robots' strongly innovate and disrupt sectors such as safety, security, inspections and military use, the production industry, transport & logistics, agriculture, and many others.

Based in Flanders, Belgium, the company has established a global presence, operating in countries such as the Netherlands, Spain, Singapore, and the Middle East with its automated intelligent drone solutions. DroneMatrix has set a benchmark for **safety, reliability, and adaptability in industrial environments**. Notably, these solutions have been successfully implemented in major projects like the **Port of Antwerp Bruges.**

In 2022, DroneMatrix joined forces with Nordic Unmanned, a strategic shareholder listed on the stock exchange and globally recognized for its high-end drone-related products and services.

As a pioneer in the field, DroneMatrix has played a crucial role in the development and manufacturing of automated aerial robots, also known as intelligent drones. These drones have revolutionized operational processes by seamlessly integrating drone technology and reducing the need for human involvement. From the beginning, DroneMatrix has prioritized "Beyond Visual Line of Sight (BVLOS)" drone flights, achieved through their proprietary drone-in-a-box technology. This in-house designed technology reflects the company's unwavering commitment to quality, durability, and compliance.

A fully integrated autonomous drone system

The autonomous drone system is comprised of three main elements which come together to create a complete ecosystem for operations.

1. The drone (flying part) – the aerial robot;
2. The docking station – the launching, landing, and communication hub, which also protects the aerial robot from intruders and weather;
3. The operational software environment, AR-WS (Aerial Robotic Work System) – Mission and Control centre.

DRONEMATRIX
OPERATING DRONESOLUTIONS

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DRONEMATRIX

OPERATING DRONESOLUTIONS

DroneMatrix DIAB airframe options.

There are two options DroneMatrix offers as a drone-in-a-box (DIAB) solution, the **YACOB** and the **YETI**. While both options are offered as fully integrated autonomous drone systems, physically, these two options only differ in airframes and docking station size with the YACOB being smaller and the YETI being larger. Each system is uniquely suited to specific applications due to their respective sizes, performance and flight characteristics. Depending on the use case requirements, each airframe has clear benefits and drawbacks.

YACOB DIAB system

The YACOB drone has been in development since 2015 and has undergone extensive research and testing in both controlled and industrial environments. With over 800 flights performed and over 140 flight hours achieved, the YACOB has proven itself to be a safe and reliable platform in the industry. The YACOB DIAB system consists of the YACOB drone and the YEDO docking station.

Physical characteristics of the YACOB

The main dimensions of the YACOB 2.3 drone are shown in the figures below. The dimensions of all the lines marked with a letter in the figures is shown in the table below to give a comprehensive overview of the principal dimensions of the airframe.

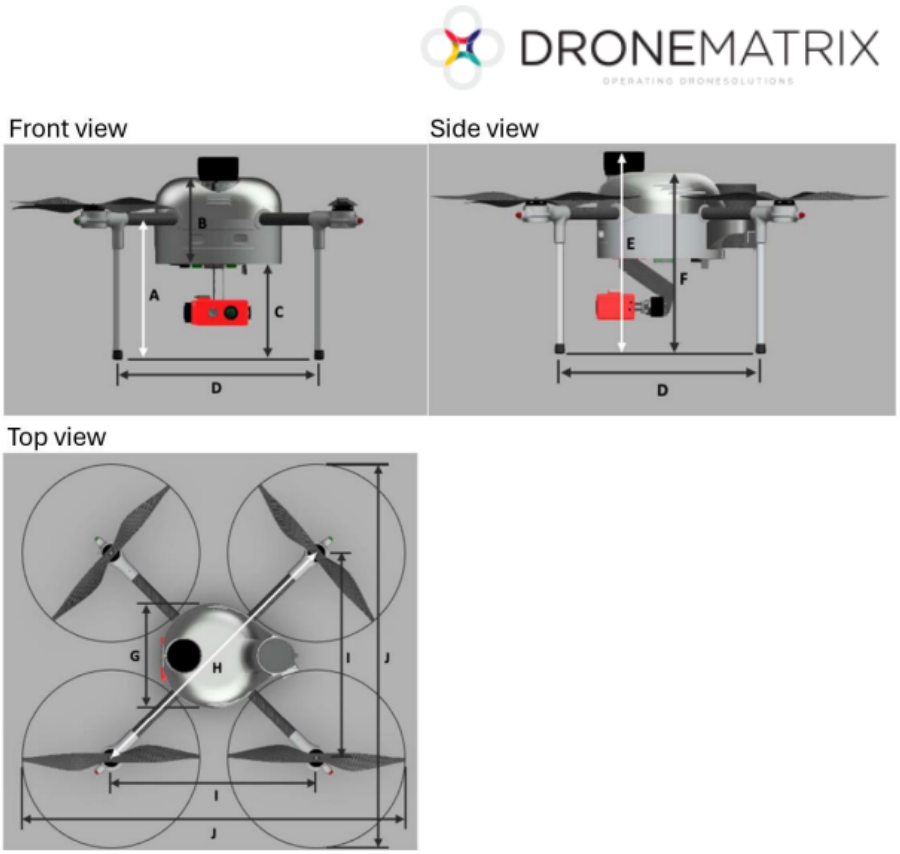


Figure 1: YADO dimensions.

Table 1: YACOB dimensions.

Letter	Name	Dimension
A	Height to arms	271 mm
B	Height fuselage	167 mm
C	Height to underside / maximum payload height	184 mm
D	Distance between landing gear legs	390 mm
E	Maximum height with 360° LiDAR	391 mm
F	Maximum height without 360° LiDAR	351 mm
G	Hull diameter	123 mm
H	Center-to-center distance of motors diagonally	682 mm
I	Center-to-center distance of motors opposite	482 mm
J	Maximum length / maximum width	893 mm

DRONEMATRIX
OPERATING DRONESOLUTIONS

Table 2: Mass characteristics of the YACOB system.

Mass characteristics	
Empty mass (no battery, no options, no payload)	3.38 kg
Bare mass (no options, no payload) - 10 Ah	4.62 kg
Bare mass (no options, no payload) - 12 Ah	4.84 kg
MTOM	6.00 kg

Performance characteristics of the YACOB

Table 3: YACOB performance characteristics.

Performance	
Maximum altitude	4500 m AMSL or 14764 feet AMSL
Maximum endurance (without reserve)	25 min
Maximum range (maximum total air distance)	10 km or 5.4 NM
Maximum rate of climb	3 m/s or 600 fpm
Maximum rate of descent	2 m/s or 400 fpm
Maximum bank angle	35°
Yaw rate limit	60°/s
Airspeeds	
Slowest speed attainable	0 m/s or 0 kts
Stall speed	NA
Nominal cruise speed	8 m/s or 15.6 kts
Maximum cruise speed	15 m/s or 29.2 kts
Never exceed speed	Not determined

Environmental limitations of the YACOB

Table 4: YACOB environmental limitations.

Wind speed limits	12 m/s or 23.3 kts wind, 14 m/s or 27.2 kts gusts
Turbulence restrictions	Operations are not to be carried out in moderate turbulence or worse.
Rain, hail, snow, ash resistance	Light rain up to 4 mm/hr, operates through light snowfall or hail.
Minimum visibility for precision landing	>1 km: This is the minimum visibility required for the infrared beacon detector and vertical rangefinder to work properly. If these do not function, the drone can still safely land on the alternate landing spot.
Outside air limits	-10°C – 40°C
In-flight icing	Operations are not to be carried out in known icing conditions; no detection equipment is present on-board. The weather station measures the relative humidity and the temperature. Based on these values, a warning will be issued for possible fog or icing conditions, but in the end, the safety pilot must ensure that there are no icing conditions.

DRONEMATRIX

OPERATING DRONESOLUTIONS

YETI DIAB system

The YETI drone has been in development since 2022 and has undergone extensive research, development and testing in both controlled and industrial environments. The YETI is based on a scaled-up YACOB DIAB system with the YETI being larger in all aspects, however, it uses the same trusted core electronics as the YACOB. The YETI DIAB system consists of the YETI drone and the YEDO docking station.

Physical characteristics of the YETI

The main dimensions of the YETI 1.0 drone are shown in the figures below. The dimensions of all the lines marked with a letter in the figures is shown in the table below to give a comprehensive overview of the principal dimensions of the airframe.

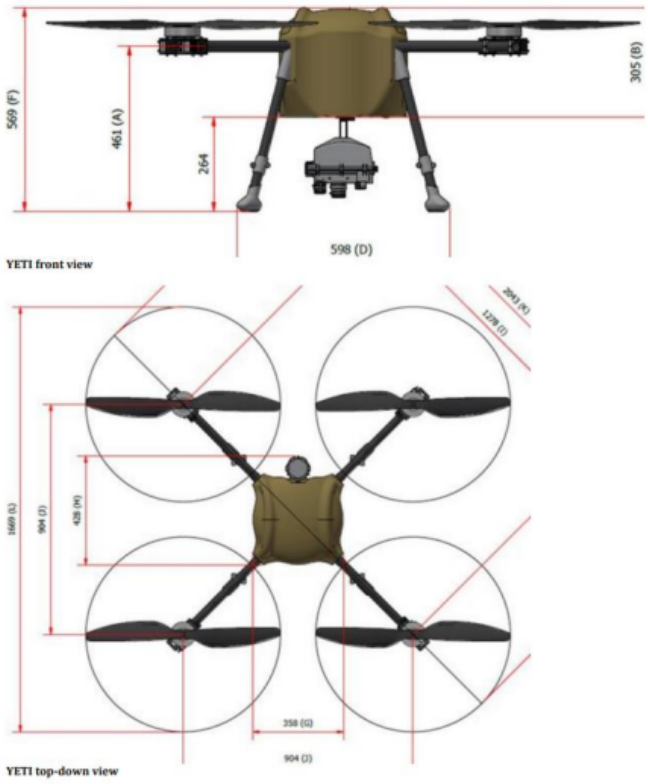


Figure 6: YETI dimensions.

Table 6: YETI dimensions.

Letter	Name	Dimension
A	Height to arms	461 mm
B	Height fuselage	264 mm
C	Height to underside / maximum payload height	299 mm
D	Distance between landing gear legs	598 mm
E	Maximum height with 360° LiDAR	600 mm
F	Maximum height without 360° LiDAR	569 mm
G	Hull width	358 mm
H	Hull length with parachute	428 mm
I	Center-to-center distance of motors diagonally	1278 mm
J	Center-to-center distance of motors opposite	904 mm
K	Maximum length diagonally	2043 mm
L	Maximum length / maximum width	1669 mm

DRONEMATRIX
OPERATING DRONESOLUTIONS

Table 7: Mass characteristics of the YETI system.

Topic	Weight
Bare mass (no options, no payload)	15.7 kg
Empty mass (no battery, no options, no payload)	10.6 kg
MTOM (Maximum Take-Off Mass)	22.3 kg

Performance characteristics of the YETI

Table 8: YETI performance characteristics.

Performance	
Maximum altitude	4500 m AMSL or 14764 feet AMSL
Maximum endurance	40 min (hover)
Maximum endurance 2kg payload	35 min (hover)
Maximum endurance (MTOW)	22 min (hover)
Maximum range (maximum total air distance)	20 km
Maximum rate of climb	3 m/s or 600 fpm
Maximum rate of descent	2 m/s or 400 fpm
Maximum bank angle	35°
Yaw rate limit	60°/s
Airspeeds	
Slowest speed attainable	0 m/s or 0 kts
Stall speed	NA
Nominal cruise speed	8 m/s or 15.6 kts
Maximum cruise speed	22 m/s (manual mode) - 18 m/s (automatic mode)
Never exceed speed	Not determined

Environmental limitations of the YETI

Table 9: YETI environmental limitations.

Wind speed limits	12 m/s or 23.3 kts wind, 14 m/s or 27.2 kts gusts
Turbulence restrictions	Operations are not to be carried out in moderate turbulence or worse.
Rain, hail, snow, ash resistance	Light rain up to 4 mm/hr, operates through light snowfall or hail.
Minimum visibility for precision landing	>1 km: This is the minimum visibility required for the infrared beacon detector and vertical rangefinder to work properly. If these do not function, the drone can still safely land on the alternate landing spot.
Outside air limits	-10°C – 40°C
In-flight icing	Operations are not to be carried out in known icing conditions; no detection equipment is present on-board. The weather station measures the relative humidity and the

	temperature. Based on these values, a warning will be issued for possible fog or icing conditions, but in the end, the safety pilot must ensure that there are no icing conditions.
IP-rate	IP44


Percepto Air
Autonomous visual inspection drones
The most advanced drone-in-a-box portfolio on the market
Percepto Air Max
Maximum performance, maximum versatility
• RGB and radiometric thermal cameras
• Detection of extreme temperatures in electric components
• Specialized, high-value use cases
Percepto Air Max OGI
Autonomous gas detection solution
• RGB camera
• Sierra Olympia Ventus OGI camera
• Payload OOOOa (EPA) certified
AI-powered insights
• Visual inspection
• Thermal inspection
• 3D modeling/volumetrics
• Construction monitoring
• Gas detection
• Emergency response
PERCEPTO
info@percepto.co www.percepto.co

Integration into Percepto AIM

Percepto Autonomous Inspection and Monitoring (AIM) is a software solution empowering you to stay on top of your site.

Remote operations
Wherever you are, manage your Percepto Air data alongside data collected from other sensors and robots.

AI-powered insights
Leverage machine learning, AI and change detection, getting highly accurate solutions for industry-specific use cases.

Effective collaboration
Easily share insights with other stakeholders; issues are geotagged on a map and accessible through smartphones, anywhere.

Benefits:

Increase efficiency & productivity
Receive automated inspection reports, insights and alerts

Boost employee & community safety
Perform risky inspections unmanned and detect safety hazards

Streamline environmental compliance
Detect environmental infractions and automate inspection audits

Reduce incidents and shutdowns
Detect failures early on with high frequency, high quality inspections

Minimize operational costs
Fully automate inspections and monitor operations

Percepto Air specifications:

	Air Max	Air Max OGI
Percepto Air drones		
Payload	· 24MP RGB camera · Thermal camera	· 16MP RGB camera · OGI camera
Landing mechanism	All weather landing: day, night, dust, rain and snow	All weather landing: day, night, dust, rain and snow
Weight	22 lb/10 kg	23 lb/10.5 kg
Parachute	ASTM 3322-18	ASTM 3322-18
Communication	Dual LTE	Dual LTE
Percepto Base		
Weather resistance	Tested to withstand hurricane level winds	Tested to withstand hurricane level winds
Weight	771.6 lb/350 kg	771.6 lb/350 kg
Waterproof	IP56	IP56

PERCEPTO

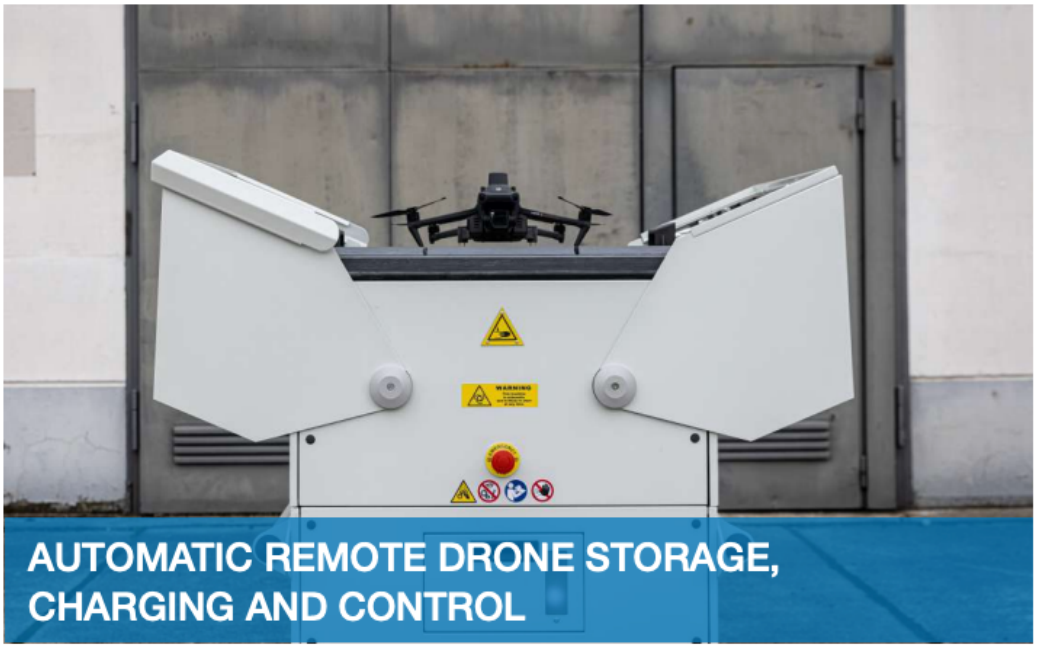
info@percepto.co www.percepto.co

OP-3-01-4/2022

SKYPORT DP5

SKYCHARGE

INDUSTRIAL BVLOS DRONE HANGAR



ENGINEERED FOR THE GREAT OUTDOOR

SKYPORT DP5 is engineered to thrive in the most extreme outdoor environments. With a rugged stainless steel IP65 construction, built-in insulation and class-leading HVAC providing an operational temperature of -35C and up to 65C.

FAST AND LIGHTWEIGHT BATTERY CHARGING

SKYPORT DP5 is compatible with any drone, featuring two stainless steel, zero-maintenance electronic proprietary docking systems. It also includes Skycharge HPD, the market's fastest and most lightweight 750W loss-free contact charging system, with unique PLC capabilities.

FUTURE PROOF AND CROSS-PLATFORM

When your drone changes, your charging infrastructure does not. SKYPORT DP5 is not only built with materials and components designed to endure for over 20 years. Through proprietary PLC-based adaptive charging, swapping drone models is made effortless.

A FEW INNOVATIVE FIRMS WHO USE OUR SOLUTIONS

NASA JPL · enel · Cubico · OAK RIDGE National Laboratory · Bundesministerium für Bildung und Forschung

Contact us today for pricing and a free 30 minute technical assessment: info@skycharge.de

TECHNICAL SPECIFICATIONS

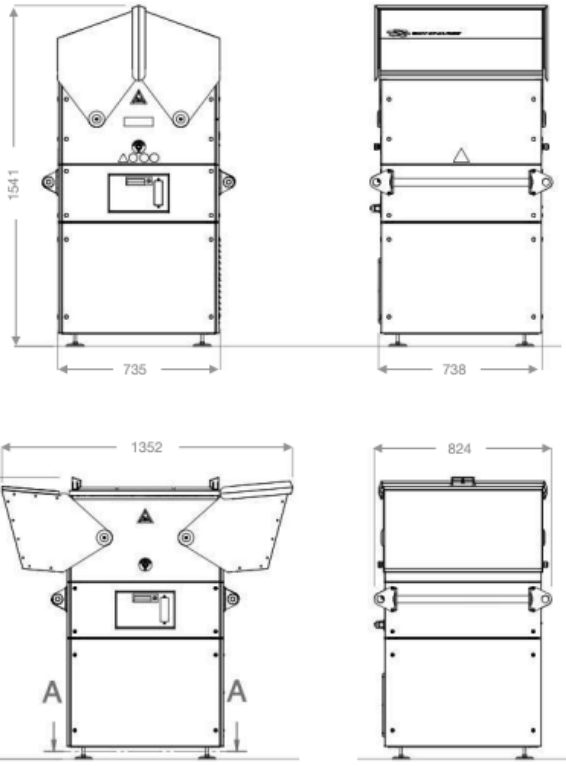
SKYCHARGE

SKYPORT DP5

INPUT VOLTAGE	110-240 Vac
INPUT FREQUENCY	50-60 Hz
DIMENSIONS L x W x H	824 x 735 x 1541 mm (32.4 x 28.9 x 60.6 in)
WEIGHT	270 kg
CONSTRUCTION	STAINLESS STEEL
CHARGING * Embedded Skycharge Charge Source 750W	750W, 5-15A, 11-52Vdc
DATA PORT	ETH, 4G/LTE
CERTIFICATION * Additional certifications upon request.	CE

ENVIRONMENTAL

IP RATING	IP 65 (weatherproof)
ENVIRONMENTAL. The unit comes with integrated heater and high performance Ventilation and Air Conditioning (HVAC) specifically designed to guarantee internal constant temperature and faster charging.	-35C +65



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TECHNICAL SPECIFICATIONS

SKYCHARGE

MAVIC 3 DOCKING SYSTEM CONFIGURATION

Effortlessly dock, charge, power on/off DJI Mavic 3 Serie.

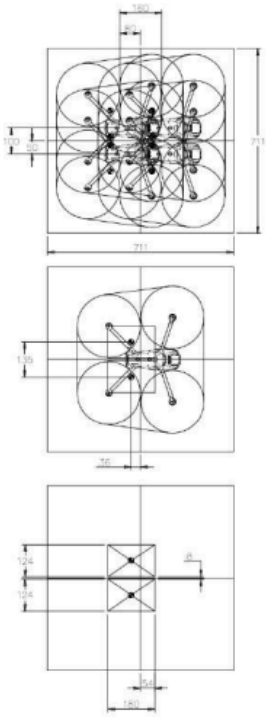
MAVIC PLATFORM

DIMENSIONS	711 x 711 mm
COMPATIBILITY	Mavic 3 Serie

REQUIRED LANDING ACCURACY

For safe operations and charging, landings require 50-80 mm accuracy depending on the platform orientation. Successful landings are confirmed using the Skycharge SDK. Landings with lower accuracy of up to 345 mm are possible but won't trigger charging or close operations; a new landing attempt is needed in such cases.

IP RATING	IP 65 (weatherproof)
CONSTRUCTION	Stainless steel, PVC



MAVIC 3 RETROFIT KIT

COMPATIBILITY	Mavic 3 Serie

The drone remains unaltered, ensuring that the kit does not void the drone warranty.

POWER ON/OFF	Mechanical

Remote drone power on/off via Skycharge SDK.

WEIGHT W/CABLES	300 g
CHARGING	1.5hrs 100% SoC

* Via standard Mavic 3 USB-C socket.

Contact us today for pricing and a free 30 minute technical assessment: info@skycharge.de

TECHNICAL SPECIFICATIONS

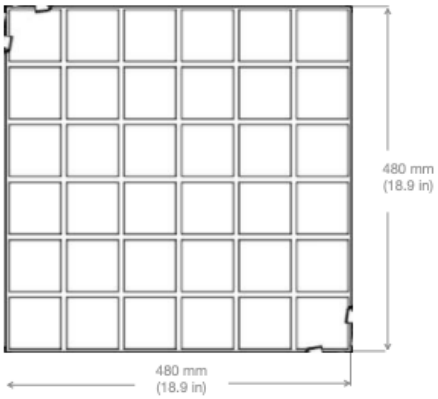
SKYCHARGE

CROSS-PLATFORM DOCKING SYSTEM CONFIGURATION

Dock and charge any present and future drone model seamlessly with the cross-platform BOLOGNINI S1 configuration.
The charging system dynamically adapts voltage, current, and charging profile, depending on the drone battery requirements.

CHARGING PLATFORM

DIMENSIONS L x W x H	480 x 480 x 140 mm (18.9 x 18.9 x 5.5 in)
COMPATIBILITY	Any drone
REQUIRED LANDING ACCURACY 220 mm from the docking station center position.	
IP RATING	IP 65 (weatherproof)
CONSTRUCTION	STAINLESS STEEL



CONTACT UNIT

DIMENSIONS L x W x H	136 x 41.75 x 73 mm (5.35 x 1.64 x 2.87 in)
WEIGHT W/CABLES	57 g
COMPATIBILITY	Any drone
CONSTRUCTION	Nylon 12

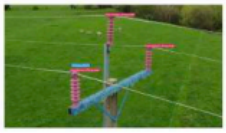
Contact us today for pricing and a free 30 minute technical assessment: info@skycharge.de

TECHNICAL SPECIFICATIONS

SKYCHARGE

REMOTE CONTROL, MISSION PLANNING, REAL-TIME AI-BASED ANALYTICS.

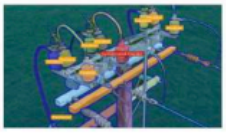
SKYPORT DP5 comes ready for integrations with any mission planner thanks to scalable on-prem and cloud SDK. The flagship integration with Unleash Live AUTOFLY brings a set of unparalleled capabilities for drone-based BVLOS asset inspections.



Powerline Inventory

UTILITIES

Identify and catalog components, making it an excellent tool for inventory management. Can be used in conjunction with Powerline Fault Detection app to detect damage to components, making it an effective tool for maintenance and repair



Powerline Fault Detection

UTILITIES

Designed to detect the faults and damages in various components of powerlines. The best results are achieved with high-resolution drone images, which allow the App to detect faults with high accuracy.

Wind Turbine Fault Detection

RENEWABLES

Capture footage from a drone or pole-based platform and upload the images to your account. Identify faults and generate a blade inspection report containing a full assessment of different components and corresponding faults.

Photovoltaic Faults

RENEWABLES

Extract key insights faster at a reduced operational cost. Identifies five types of faults on thermal drone imagery: Overheating component panel, Diode fault, Hot spots, Interconnection fault, Cluster break.

More information:
https://unleashlive.com/autofly
https://unleashlive.com/ai-solutions

TECHNICAL SPECIFICATIONS

SKYCHARGE

CONSTRUCTION

- Inox steel AISI 304
- IP65 construction
- Thermal insulation
- Heater
- High performance 1,5kW HVAC
- Weatherproof drawer for third-party edge computing and other additional apparatus
- Adjustable feet

OPERATIONS

- On-prem and could SDK
- Mission planner integration (optional)
- Backup batteries
- Selectors for manual open/close
- Power on/off with key selector
- Internal drawer for third-party equipment integrations (e.g. drone RC)
- External pole incl. long-range antennas, hemispheric and motorised visual security cameras (optional)
- Weather station (optional)

SAFETY

- CE marked electronic components (Directive 2014/30/EU (EMC) and/or 2014/35/EU
- Power supply safety standards UL62368-1, CSA C22.2 No. 62368-1, TUV EN62368-1, CCC GB4943.1, BSMI CNS14336-1, AS/NZS62368.1, EAC TP TC 004 approved
- Reverse current protection
- Redundant short protections
- Charging protections: Overload, Over voltage, Over temperature,
- Anti-collision, Anti-crushing, Anti-theft systems
- Emergency buttons
- Safety acoustic

CHARGING & DOCKING

- Skycharge SRC-750W up to 15A
- Skycharge SRC-1500W up to 30A (optional)
- Charge sink PLC / LIGHT (16-24 g)
- Automatic charging upon landing

OPTION-1

- Cross-platform docking system

OPTION-2

- Drone-specific docking system

CUSTOM DOCKING & RETROFIT KIT DEVELOPMENTS

SKYCHARGE offers custom docking and retrofit kit developments to streamline integration with any drone. Our retrofit kits are non-invasive, require no specialised technical knowledge for installation and ensure minimal impact on drone performance.

Contact us today for pricing and a free 30 minute technical assessment: info@skycharge.de

Enter a new era of autonomous work.

Position docked drones where the work happens, remotely operate them from anywhere in the world, and get the data your teams need to act; from real-time situational awareness to pre-planned asset inspections.

Built for reliability in challenging environments.

Dock for X10 is built to withstand harsh weather related challenges like rain, snow, wind, scorching heat, and freezing cold. Your X10 drone will be ready to fly as soon as conditions allow.

20 sec
Time to get airborne.

24/7
Continuous operation, day or night.

-4 to 122 F
Safely operate in extreme temperatures.

5G
Unlimited Flight Range.[1]

Operate Beyond Visual Line of Sight (BVLOS).

Dock for X10's built-in weather sensors and ADS-B (aircraft position transmitter) combined with Skydio X10's world leading autonomy provide the Remote Pilot in Command (RPIC) with an accurate picture of both the airspace and conditions on the ground — even when nobody is onsite.[2]

Command your fleet.

Remotely operate entire fleets of drones with a detailed picture of the operating area.

Fly with unlimited range.

Skydio Connect Fusion lets drones instantly switch between a point-to-point connection to the dock and 5G connection for unlimited range.[1]

Work safely.

Enterprise-grade safety features let you conduct pre-flight checks remotely, customize surround lighting, and set audible alerts.

[1] Remote operation and continuous live stream are dependent on cellular network connectivity.
[2] BVLOS waiver required for remote flight.

Technical Specs

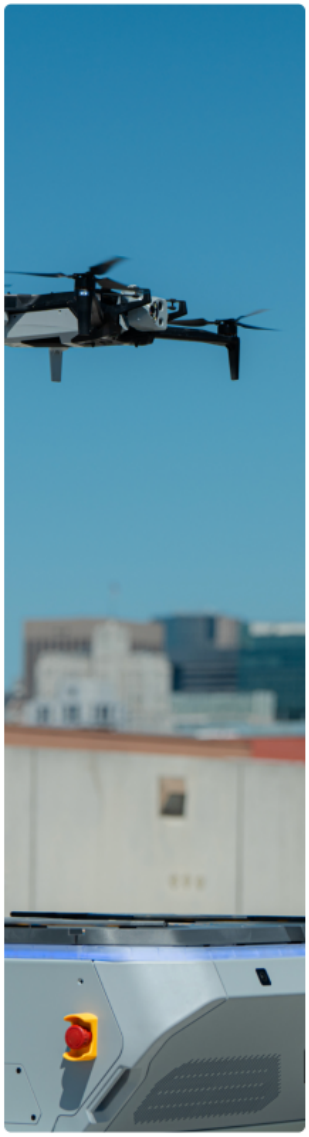
Skydio

Dock for X10

Launch / Land Winds	Up to 12 m/s (27 mph)
Operational Temperature	-20° to 50 °C / -4° to 122 °F
Standby Temperature	-40° to 60 °C / -40° to 140 °F
Dock Dimensions	34.1" L x 37.7" W x 55.5" H (with base)
Dock Weight	240 lbs (with base)
Ingress Protection (Roof Open)	IP54
Ingress Protection (Roof Closed)	IP56
Battery Charge Time	15% to 95% within 35 minutes at 25 °C
Service Life	5 years with minor service conducted (Estimated at 3 flights/day avg)
Corrosion Resistance	Designed to operate in humid environments, outside of direct saltwater splash zone
Rain and Snow Limitations	X10 operational capability: 0.25"/hr (light-moderate), Dock Standby: 4"/hr (Heavy)
Input/Output	2x POE RJ45 (30W, 48V), 1x USB3.0 (5W, 5V)
220V Power Requirement	Recommended below 0 °C
Onboard Storage	512GB (Non-removable, for media sync purposes only)
Launch Time	Airborne in 20 seconds

X10 Aircraft

Dimensions (unfolded, propellers)	31.1" x 25.6" x 5.7"
Dimensions (folded)	13.8" x 6.5" x 4.7"
Weight (including batteries)	Connect SL: 2.11 kg / 4.65 lbs Connect SL + 5G: 2.14 kg / 4.72 lbs
Max Hover Time	35 minutes
Max Flight Time	40 minutes
Processors	NVIDIA Jetson Orin SoC
Ingress Protection Rating	IP55
Operational Temperature Range	-20 °C to 45 °C / -4 °F to 113 °F
Wireless Range (no interference, line of sight operation)	Urban: 1-2 km (0.6-1.2 miles) Suburban: 2-6 km (1.2-3.7 miles) Rural: 6-12 km (3.7-7.5 miles) Max: 12 km (7.5 miles) Connect 5G: Unlimited (wherever cellular coverage is available)
Wireless Networking (media offload)	Connect SL: WiFi6 Connect 5G: Cellular LTE/5G
Obstacle Avoidance Coverage	True °360



Designed and assembled in the USA.

For additional information, please visit https://www.skydio.com/products/dock

Technical Spec

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Last Updated: 2024-09-03

The Bee

Designed for safety and performance, the lightweight drone features sophisticated technology for autonomous flight, high-quality video capture and accurate landing and charging, each and every time.

Weight
1.56 kg (battery included)
Body Size
28 x 28 x 21 cm
Full Size (including prop guards)
48 x 48 x 21 cm (57 cm diagonal)
Propeller Size
22.9 cm
Cruise Speed
14.5 km/h or 4 m/s
Operational Flight Time
15 min (+5 min safety reserve)
Battery Capacity
4000 mAh
Obstacle Avoidance Range
6 meters
Max Transmission Distance
600 meter radius
Hover Accuracy
30 cm

GPS
Multi-band multi-constellation RTK
Camera Sensor
Sony IMX385 low-light sensor (>0.1 lux)
Camera Field-of-View
50°(v), 100°(h)
Sensor Resolution
1920x1080 HD @25fps
Bandwidth Requirement
3 Mbps (up & down)
Video Latency
~250 ms
Wind Speed Resistance
9m/s, 32kph, 20mph
Gust Resistance
14m/s, 50kph, 32mph
Operational Temperatures
-10°C to 40°C
Recharge Time Ratio
1:2 flight time to recharge time (2 min flight = 4 min recharge)

The Hive

The Hive not only houses and charges the Bee— it's the brains of the entire system, processing and analyzing sensor data using state-of-the-art embedded AI computing.

Weight
35 kg
Dimensions when Closed
86 x 80 x 80 cm
Dimensions when Opening
98 x 80 x 63 cm
Power Supply
110V or 220V AC

Runtime on Backup Battery
1 hour
Connectivity
Ethernet + optional LTE modem
Operational Temperatures
-20°C to +50°C