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# MATRICE 200 SERIES V2

BUILT TO ENDURE. ENGINEERED TO ADAPT.



The ultimate platform for aerial productivity combines a rugged design and simple customizability to work as a solution for a variety of industrial applications. Improvements to the M200 Series V2 enhance intelligent control systems, flight performance, and add flight safety and data security features.



IP43



OcuSync 2.0



TimeSync



AES-256  
Encryption



Anti-Collision  
Beacons



DJI AirSense

## VERSATILE PLATFORM



### MATRICE 200 V2

#### RELIABLY TOUGH

- FPV Camera
- Anti-collision Beacon
- Discreet Mode
- Mobile SDK Compatibility
- DJI SkyPort Compatibility
- TimeSync



### MATRICE 210 V2

#### ADAPTABILITY ON THE GO

- All M200 V2 Features
- Onboard SDK Compatibility
- Power Onboard Devices



### MATRICE 210 RTK V2

#### POWERFUL PRECISION

- All M210 V2 Features
- Built-in High-performance RTK Modules
- D-RTK 2 Mobile Station Compatibility<sup>1</sup>

<sup>1</sup>D-RTK 2 High Precision GNSS Mobile Station For Matrice Series

## INTELLIGENT CONTROLS



### TRANSMISSION

Enjoy a more reliable and stable flight with the new OcuSync 2.0 system, which supports automatic dual frequency band switching<sup>2</sup> and extends flight range to up to 8km<sup>3</sup>.



### CALIBRATION

When multiple payloads or third-party payloads are installed, users can readjust the drone's center of gravity in the DJI Pilot app, enhancing flight performance and safety.



### DATA ACCURACY

The TimeSync system continuously aligns the flight controller, camera, GPS module, RTK module for the M210 RTK V2, as well as payloads or onboard accessories. The position data is fixed to the center of the CMOS for precise geotagging when using DJI payloads.



### DISCREET MODE

When the situation calls for unobtrusive drone operations, especially at night, all lights can be completely turned off in the DJI Pilot app.

## ALWAYS READY



### 1-CLICK UPGRADE

The remote controller, drone, payloads<sup>4</sup>, RTK module, and RTK base station can now be upgraded simultaneously with just 1-click in DJI Pilot or DJI Assistant 2.



### DUAL-BATTERY SYSTEM

The self-heating battery system allows a maximum flight time of 38 minutes<sup>5</sup> and an operating temperature range of -20 to 50°C.

<sup>2</sup>Due to local policies, some countries do not support 5.8 GHz transmission.

<sup>3</sup>Unobstructed, free of interference, when FCC compliant. Maximum flight range specification is a proxy for radio link strength and resilience. Always fly your drone within visual line of sight unless otherwise permitted.

<sup>4</sup>Currently supports DJI Zenmuse X5S, Zenmuse X7, Zenmuse X4S. Support for additional payloads is coming soon.

<sup>5</sup>Acquired at a constant speed of 25 kph, free of wind. Actual flight time may vary because of the environment, use of flight modes, and or accessories.

## SAFE AND SECURE



### AES-256 ENCRYPTION

The AES-256 encryption keeps your data transmission secure so you can be sure that your critical information stays safe.



### OBSTACLE AVOIDANCE

A robust FlightAutonomy system with front, bottom and upper sensors detects and avoids obstacles while enabling precision hovering so that you can fly with confidence.



### ANTI-COLLISION BEACON

Equipped with new top and bottom anti-collision beacons, the V2 drones are visible at night or in lowlight conditions, making operation in less than ideal conditions safer.



### DJI AIRSENSE

With a built-in ADS-B receiver, the DJI AirSense technology enhances airspace safety by automatically providing the operator with real-time information about nearby airplanes and helicopters.

## COMPATIBLE PAYLOADS



### ZENMUSE XT2

<50mK Thermal Sensitivity  
IP44 Level Ingress Protection  
12 MP Visual Sensor



### ZENMUSE X5S

5.2K 30fps CinemaDNG video  
20.8MP Stills  
M4/3



### ZENMUSE X7

6K CinemaDNG  
24 MP Stills  
Super 35 Sensor



### ZENMUSE Z30

30x Optical Zoom  
6x Digital Zoom  
Gimbal Angular Vibration Range 0.01°



### ZENMUSE X4S

1-inch Sensor  
20 MP Stills  
4K 60FPS



### ZENMUSE XT

50mK Thermal Sensitivity  
Digital Zoom  
640 x 512 FPA

## PAYLOAD CONFIGURATIONS

The imaging platform that adapts to your needs.



### SINGLE DOWNWARD GIMBAL

- M200 V2
- M210 V2
- M210 RTK V2



### DUAL DOWNWARD GIMBALS

- M210 V2
- M210 RTK V2



### SINGLE UPWARD GIMBAL

- M210 V2
- M210 RTK V2



### THIRD PARTY SENSORS

- M200 V2
- M210 V2
- M210 RTK V2



## EXPLORE LIMITLESS PAYLOAD SOLUTIONS

Bring your tools to the sky by integrating third party payloads – sensors, robotic components and more – to the M200 Series V2 platform.

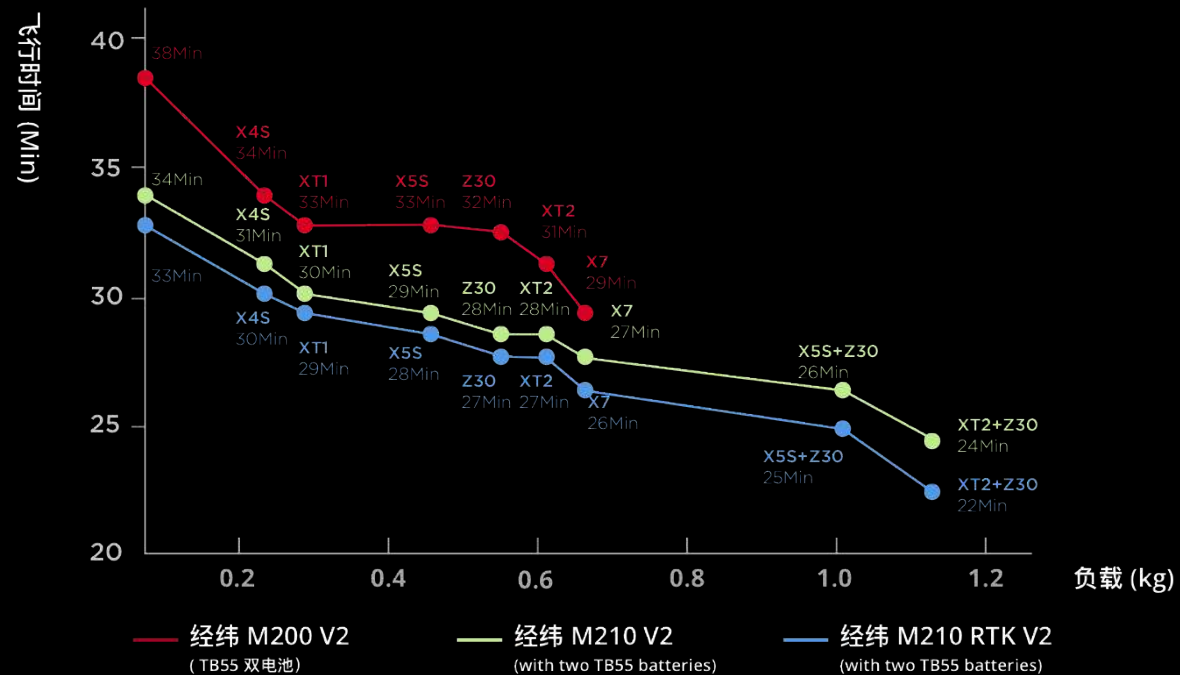


# POWERED BY DJI SKYPORT



## FLIGHT TIME

Estimate your M200 Series V2 drone's flight time based on the payload configuration.



## OPTIONAL ACCESSORIES TO ENHANCE PERFORMANCE



### Manifold 2

Turn your vision into reality using DJI's onboard computer – the Manifold 2. Leverage its flexibility and expandability to build customized drone solutions and bring your robotics operations to the edge.



### D-RTK 2 Mobile Station For Matrice Series<sup>6</sup>

Gain improved relative accuracy with centimeter-level precision positioning data using the D-RTK 2 Mobile Station, which supports all major global satellite navigation systems and provides real-time differential corrections.



### Upward Gimbal Connector

Connect any compatible payload above your M210 V2 and M210 RTK V2 drone using the upward gimbal to capture data from a different aerial perspective.



### External GPS Module

Enhance positioning accuracy by using an external GPS module, especially when using an upward gimbal on the M210 V2, or when attaching onboard devices or payloads.

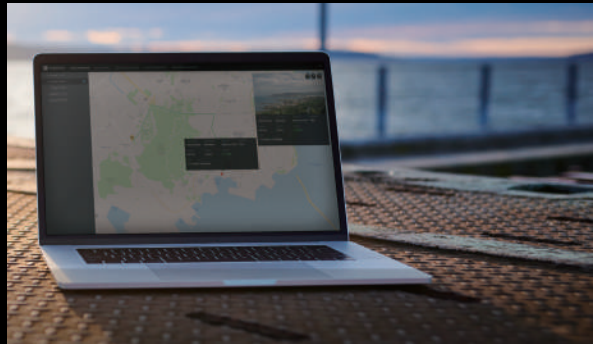
<sup>6</sup>Note: the M210 RTK V2 is only compatible with the D-RTK 2 High Precision GNSS Mobile Station For Matrice Series.

## PURPOSE-BUILT APPLICATIONS



### DJI PILOT

DJI Pilot is an app developed specifically for enterprise users to control and customize their DJI drones. With development made specifically for the M200 Series V2, DJI Pilot optimizes your flight capability for peak performance.



### DJI FLIGHTHUB

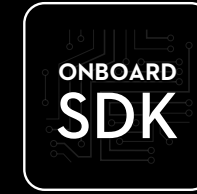
DJI FlightHub is a one-stop solution for managing your drone operations, supporting large organizations to effectively scale their aerial operations. Compatible with the M200 Series V2, you can integrate FlightHub directly into your existing fleet of DJI drones and leverage its aerial intel across your organization.

## PAYLOAD CONFIGURATIONS



### Payload SDK

Build imaging or robotic tools for your specific workflow needs and integrate them seamlessly on the M200 Series V2 drones. Thanks to the TimeSync feature, third-party payloads can have the position data fixed to the center of the gimbal connector for precise geotagging.



### Onboard SDK

Integrate an onboard computer to analyze in-flight data, or connect third party devices.



### Mobile SDK

Develop personalized mobile apps to make flight planning and on-site data collection simpler, faster and repeatable.



## A PLATFORM FOR DIVERSE APPLICATIONS

The M200 Series V2 drone platforms can be easily configured to serve in a variety of application scenarios.



**PUBLIC SAFETY**

<b>Applications</b>	Scouting	Aerial Overviews	Forensics
<b>Solution</b>	Mission Operations	Mission Operations	Mapping
<b>Configuration</b>	M210 V2 Z30 XT2	M210 V2 Z30 XT2	M210 RTK V2 X7 Image Stitching Software



**INFRASTRUCTURE**

<b>Applications</b>	Asset Inspection	Emergency Response	Surveying
<b>Solution</b>	Inspection	Inspection	Mapping
<b>Configuration</b>	M210 V2 Z30	M210 V2 Z30	M210 RTK V2 X7 Image Stitching Software



**ENERGY**

<b>Applications</b>	Vertical Asset Inspection	Defect Detection	Site Mapping
<b>Solution</b>	Thermal Inspection	Inspection	Mapping Solution
<b>Configuration</b>	M210 V2 Z30 XT2	M210 V2 Z30	M210 RTK V2 X7 Image Stitching Software



**CONSTRUCTION**

<b>Applications</b>	Planning	Workflow Management	Inspection
<b>Solution</b>	Mapping	Mapping	Mapping
<b>Configuration</b>	M210 RTK V2 X7 Image Stitching Software	M210 RTK V2 X7 Image Stitching Software	M210 V2 Z30

SPECIFICATIONS: AIRCRAFT

	<b>Matrice 200 V2</b>	<b>Matrice 210 V2</b>	<b>Matrice 210 RTK V2</b>
<b>Dimensions</b>	Unfolded, propellers and landing gears included: <b>883×886×398 mm</b> Folded, propellers and landing gears excluded: <b>722×247×242 mm</b>	Unfolded, propellers and landing gears included: <b>883×886×398 mm</b> Folded, propellers and landing gears excluded: <b>722×282×242 mm</b>	Unfolded, propellers and landing gears included: <b>883×886×427 mm</b> Folded, propellers and landing gears excluded: <b>722×282×242 mm</b>
<b>Diagonal Wheelbase</b>	<b>643 mm</b>		
<b>Weight</b>	Approx. <b>4.69 kg</b> (with two TB55 batteries)	Approx. <b>4.8 kg</b> (with two TB55 batteries)	Approx. <b>4.91 kg</b> (with two TB55 batteries)
<b>Max Takeoff Weight</b>	<b>1.45 kg</b>	<b>1.34 kg</b>	<b>1.23 kg</b>
<b>Max Payload</b>	<b>6.14 kg</b>		
<b>Operating Frequency</b>	2.4000-2.4835 GHz; 5.725-5.850 GHz		
<b>EIRP</b>	2.4 GHz: ≤ 26 dBm (NCC/FCC); ≤ 20 dBm (CE/MIC); ≤ 20 dBm (SRRC) 5.8 GHz: ≤ 26 dBm (NCC/FCC); ≤ 14 dBm (CE); ≤ 26 dBm (SRRC)		
<b>Hovering Accuracy</b> (P-mode with GPS)	Vertical: ±1.64 feet (±0.5 m) or ±0.33 feet (±0.1 m, Downward Vision System enabled) Horizontal: ±4.92 feet (±1.5 m) or ±0.98 feet (±0.3 m, Downward Vision System enabled)		
<b>Hovering Accuracy</b> (D-RTK, M210 RTK V2)			Vertical: ±0.33 feet (±0.1 m); Horizontal: ±0.33 feet (±0.1 m)
<b>Max Angular Velocity</b>	Pitch: 300°/s, Yaw: 120°/s		

SPECIFICATIONS: AIRCRAFT

	<b>Matrice 200 V2</b>	<b>Matrice 210 V2</b>	<b>Matrice 210 RTK V2</b>
<b>Max Pitch Angle</b> (Dual Downward Gimbal/Single Upward Gimbal)		S-mode: 30°; P-mode: 30° (Forward Vision System enabled: 25°); A-mode: 30°	
<b>Max Pitch Angle</b> [Single Downward Gimbal (Gimbal Port I on M210 V2 and M210 RTK V2)]	S-mode: 35°; P-mode: 30° (Forward Vision System enabled: 25°); A-mode: 30°		
<b>Max Ascent Speed</b>	16.4 ft/s (5 m/s)		
<b>Max Descent Speed</b> (vertical)	9.8 ft/s (3 m/s)		
<b>Max Speed</b> (Dual Downward Gimbal/Single Upward Gimbal)		S-mode/A-mode: 73.8 kph (45.9 mph); P-mode: 61.2 kph (38 mph)	
<b>Max Speed</b> [Single Downward Gimbal (Gimbal Port I on M210 V2 and M210 RTK V2)]	S-mode/A-mode 81 kph (50.3 mph); P-mode: 61.2 kph (38 mph)		
<b>Max Service Ceiling Above Sea Level</b>	9842 feet (3000 m, with 1760S propellers)		
<b>Max Wind Resistance</b>	39.4 ft/s (12 m/s)		

SPECIFICATIONS: AIRCRAFT

	Matrice 200 V2	Matrice 210 V2	Matrice 210 RTK V2
Max Flight Time (with two TB55 batteries)	38 min (no payload), 24 min (takeoff weight: 6.14 kg)	34 min (no payload), 24 min (takeoff weight: 6.14 kg)	33 min (no payload), 24 min (takeoff weight: 6.14 kg)
Supported DJI Gimbals	Zenmuse X4S/X5S/X7/XT/XT2/Z30		
Supported Gimbal Mounting	Single Gimbal, Downward	Single Downward Gimbal (Gimbal Connector I), Dual Downward Gimbals, Single Upward Gimbal	Single Downward Gimbal (Gimbal Connector I), Dual Downward Gimbals, Single Upward Gimbal
Ingress Protection Rating	IP43		
GNSS	GPS+GLONASS	GPS+GLONASS+BeiDou +Galileo	
Operating Temperature	-4° to 122° F (-20° to 50° C)		
Max Payload	6.14 kg		
Operating Frequency	2.4000-2.4835 GHz; 5.725-5.850 GHz		

SPECIFICATIONS: REMOTE CONTROLLER (GL900A)

	Matrice 200 V2	Matrice 210 V2	Matrice 210 RTK V2
Operating Frequency	2.4000-2.4835 GHz; 5.725-5.850 GHz		
Max Transmitting Distance (unobstructed, free of interference)	NCC/FCC: 5 mi (8 km); CE/MIC: 3.1 mi (5 km); SRRC: 3.1 mi (5 km)		
EIRP 2.4 GHz	2.4 GHz: ≤ 26 dBm (NCC/FCC); ≤ 20 dBm (CE/MIC); ≤ 20 dBm (SRRC) 5.8 GHz: ≤ 26 dBm (NCC/FCC); ≤ 14 dBm (CE); ≤ 26 dBm (SRRC)		
Power Supply	Extended Intelligent Battery (Model: WB37-4920mAh-7.6V)		
Output Power (max)	13 W (Without supplying power to monitor)		
USB Power Supply	1 A == 5.2 V (max)		
CrystalSky Monitor		DJI CrystalSky 7.85 inches, Resolution: 2048×1536; Brightness: 2000 cd/m2; Operating System: Android 5.1; Storage: ROM 128 GB	
Operating Temperature	-4° to 122° F (-20° to 50° C)		

## SPECIFICATIONS: DOWNWARD VISION SYSTEM

	<b>Matrice 200 V2</b>	<b>Matrice 210 V2</b>	<b>Matrice 210 RTK V2</b>
<b>Velocity Range</b>	< 32.8 ft/s (10 m/s) at the height of 6.56 feet (2 m)		
<b>Altitude Range</b>	< 32.8 feet (10 m)		
<b>Operating Range</b>	< 32.8 feet (10 m)		
<b>Operating Environment</b>	Surfaces with clear patterns and adequate lighting (> 15 lux)		
<b>Ultrasonic Sensor Operating Range</b>	0.33-16.4 feet (0.1-5 m)		
<b>Ultrasonic Sensor Operating Environment</b>	Non-absorbing material, rigid surface (thick indoor carpeting will reduce performance)		

## SPECIFICATIONS: FORWARD VISION SYSTEM

	<b>Matrice 200 V2</b>	<b>Matrice 210 V2</b>	<b>Matrice 210 RTK V2</b>
<b>Obstacle Sensing Range</b>	2.3-98.4 feet (0.7-30 m)		
<b>FOV</b>	Horizontal 60°; Vertical: 54°		
<b>Operating Environment</b>	Surfaces with clear patterns and adequate lighting (> 15 lux)		

## SPECIFICATIONS: UPWARD INFRARED SENSING SYSTEM

	<b>Matrice 200 V2</b>	<b>Matrice 210 V2</b>	<b>Matrice 210 RTK V2</b>
<b>Obstacle Sensing Range</b>	0-16.4 feet (0-5 m)		
<b>FOV</b>	±5°		
<b>Operating Environment</b>	Large, diffuse and reflective obstacles (reflectivity > 10%)		

## SPECIFICATIONS: OTHERS

<b>Matrice 200 SeriesV2</b>		
<b>Intelligent Flight Battery</b> (TB55-7660mAh-22.8V)	Capacity	7660 mAh
	Voltage	22.8 V
	Battery Type	LiPo 6S
	Energy	174.6 Wh
	Net Weight (Single One)	Approx. 885 g
	Operating Temperature	-4° to 122° F (-20° to 50° C)
	Charging Temperature	41° to 104° F (5° to 40° C)
	Max Charging Power	180 W
<b>Charger (IN2C180)</b>	Voltage	26.1 V
	Rated Power	180 W
<b>Charging Hub (IN2CH)</b>	Input Voltage	26.1 V
	Input Current	6.9 A