

# MAVIC 3 MULTISPECTRAL



## AIRCRAFT

### Net Weight (with propellers and RTK module)

[1]

951 g

### Max Takeoff Weight

1,050 g

### Dimensions (Folded/Unfolded)

Folded (without propellers): 223×96.3×122.2 mm  
(Length×Width×Height)

Unfolded (without propellers): 347.5×283×139.6  
mm (Length×Width×Height)

### Diagonal Length

Diagonal: 380.1 mm

### Max Ascent Speed

6 m/s (Normal Mode)

8 m/s (Sport Mode)

### Max Descent Speed

6 m/s (Normal Mode)

6 m/s (Sport Mode)

### Max Flight Speed (at sea level, no wind)

15 m/s (Normal Mode)

Flying forward: 21 m/s, flying sideways: 20 m/s,  
flying backwards: 19 m/s (Sport mode) [2]

### Max Wind Speed Resistance

12 m/s [3]

### Max Take-off Altitude Above Sea Level

6000 m (without a payload)

### Max Flight Time (without wind)

43 minutes [4]

### Max Hover Time (without wind)

37 minutes [4]

### Max Flight Distance

32 km [6]

### Max Tilt Angle

30° (Normal Mode)

35° (Sport Mode)

### Max Angular Velocity

200°/s

## GNSS

GPS + Galileo + BeiDou + GLONASS (GLONASS is supported only when RTK module is enabled)

### Hovering Accuracy Range

Vertical: ±0.1 m (Vision Positioning enabled);  
±0.5 m (GNSS Positioning enabled); ±0.1 m (D-RTK enabled)

Horizontal: ±0.3 m (Vision Positioning enabled);  
±0.5 m (HD Positioning enabled); ±0.1 m (RTK enabled)

### Operating Temperature

-10° to 40° C (14° to 104° F)

### Internal Storage

N/A

### Motor Model Number

2008

### Propeller Model Number

9453F Enterprise Edition

### Light Sensor

Built-in module

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metering and control

# MAVIC 3 MULTISPECTRAL



## RGB CAMERA

### Image Sensor

4/3 CMOS

Effective Pixels: 20 MP

### Lens

FOV: 84°

Equivalent focal length: 24 mm

Aperture: f/2.8 to f/11

Focus: 1 m to ∞

### ISO Range

100-6400

### Shutter speed

Electronic shutter: 8-1/8000 s

Mechanical shutter: 8-1/2000 s

### Max Image Size

5280×3956

### Photo Shooting Mode

Single shot: 20 MP

Timelapse: 20 MP

JPEG: 0.7/1/2/3/5/7/10/15/20/30/60 s

JPEG + RAW: 3/5/7/10/15/20/30/60 s

Panorama: 20 MP (original material)

### Video Resolution

H.264:

4K: 3840×2160@30fps

FHD: 1920×1080@30fps

### Max Video Bitrate

4K: 130Mbps

FHD: 70Mbps

### Supported File System

exFAT

### Image Format

JPEG/DNG (RAW)

### Video Format

MP4 (MPEG-4 AVC/H.264)

## MULTISPECTRAL CAMERA

### Image Sensor

1/2.8-inch CMOS, effective pixels: 5 MP

### Lens

FOV: 73.91° (61.2° x 48.10°)

Equivalent focal length: 25 mm

Aperture: f/2.0

Focus: Fixed Focus

### Multispectral Camera Band

Green (G): 560 ± 16 nm;

Red (R): 650 ± 16 nm;

Red Edge (RE): 730 ± 16 nm;

Near infrared (NIR): 860 ± 26 nm;

### Gain Range

1x-32x

### Shutter Speed

Electronic Shutter: 1/30~1/12800 s

### Max Image Size

2592×1944

### Image Format

TIFF

### Video Format

MP4 (MPEG-4 AVC/H.264)

### Photo Shooting Mode

Single shot: 5 MP

Timelapse: 5 MP

TIFF: 2/3/5/7/10/15/20/30/60 s

### Video Resolution

H.264

FHD: 1920 x 1080@30fps

Video content: NDVI/GNDVI/NDRE

### Max Video Bitrate

Stream: 60 Mbps

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## GIMBAL

### Stabilization System

3-axis mechanical gimbal (tilt, roll, pan)

### Mechanical Range

Tilt: -135° to 45°

Roll: -45° to 45°

Pan: -27° to 27°

### Controllable Range

Tilt: -90° to 35°

Pan: Uncontrollable

### Max Control Speed (tilt)

100°/s

### Angular Vibration Range

±0.007°

## SENSING SYSTEM

### Sensing System Type

Omnidirectional binocular vision system, with an infrared sensor at the bottom of the aircraft

### Forward

Distance Measuring Range: 0.5 m to 20 m

Detection Range: 0.5 m to 200 m

Effective Obstacle Avoidance Speed: Flight Speed ≤15 m/s

FOV: Horizontal 90°, vertical 103°

### Backward

Distance Measuring Range: 0.5 m to 16 m

Effective Obstacle Avoidance Speed: Flight speed ≤12 m/s

FOV: Horizontal 90°, vertical 103°

### Lateral

Distance Measuring Range: 0.5 m to 25 m

Effective Obstacle Avoidance Speed: Flight speed ≤15 m/s

FOV: Horizontal 90°, vertical 85°

### Upward

Distance Measuring Range: 0.2 m to 10 m

Effective Obstacle Avoidance Speed: Flight Speed ≤6 m/s

FOV: Front and rear 100°, left and right 90°

### Downward

Distance Measuring Range: 0.3 m to 18 m

Effective Obstacle Avoidance Speed: Flight speed ≤6 m/s

FOV: Front and rear 130°, left and right 160°

### Operating Environment

Front, Rear, Left, Right, Above: Surfaces with clear patterns and adequate lighting (> 15 lux, environments with normal indoor fluorescent light exposure)

Below: Surfaces with diffuse reflection material and a reflectivity of >20% (such as walls, trees, people, etc.); Adequate lighting (>15 lux, environments with normal indoor fluorescent light exposure)

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## VIDEO TRANSMISSION

### Video Transmission System

DJI O3 Image Transmission Industry Edition

### Live View Quality

Remote Controller: 1080p/30fps

Operating Band [7]

2.400-2.4835 GHz

5.725-5.850 GHz

### Max Effective Signal Distance (Unobstructed, No interference) [8]

FCC: 15 km

CE: 8 km

SRRC: 8 km

MIC: 8 km

### Max Transmission Distance (Obstructed) [9]

Strong Interference (urban landscapes, residential areas, etc.): 1.5-3 km

(FCC/CE/SRRC/MIC)

Medium Interference (suburban landscapes, city parks, etc.): 3-9 km (FCC), 3-6 km (CE/SRRC/MIC)

Weak Interference (remote fields, open farmland, etc.): 9-15 km (FCC), 6-8 km (CE/SRRC/MIC)

### Max Download Speed

15 MB/s (with DJI RC Pro Industry Edition)

### Latency (depending on environment and mobile device)

Approximately 200 milliseconds

### Antennas

4 antennas, 2 transmitting and 4 receiving

### Transmitter Power (EIRP)

2.4 GHz: <33 dBm (FCC), <20 dBm (CE/SRRC/MIC)

5.8 GHz: <33 dBm (FCC), <30 dBm (SRRC), <14 dBm (CE)

### Other

Supports the DJI Cellular module

## DJI RC PRO ENTERPRISE EDITION

### Image Transmission System

DJI O3 Image Transmission Industry Edition

### Max Effective Signal Distance (Unobstructed, No interference) [8]

FCC: 15 km

CE: 8 km

SRRC: 8 km

MIC: 8 km

### Operating Band of Image Transmission [7]

2.400-2.4835 GHz

5.725-5.850 GHz

### Antennas

4 antennas, 2 transmitting and 4 receiving

### Operating Band of Image Transmission and 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)

### Wi-Fi Protocol

802.11 a/b/g/n/ac/ax

Support 2x2 MIMO Wi-Fi

### Wi-Fi Operating Band [7]

2.400-2.4835 GHz

5.150-5.250 GHz

5.725-5.850 GHz

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## Wi-Fi Operating Band and Transmitter Power (EIRP)

2.4 GHz: <26 dBm (FCC); <20 dBm (CE/SRRC/MIC)

5.1 GHz: <26 dBm (FCC); <23 dBm (CE/SRRC/MIC)

5.8 GHz: <26 dBm (FCC/SRRC); <14 dBm (CE)

## Bluetooth Protocol

Bluetooth 5.1

## Bluetooth Operating Band

2.400-2.4835 GHz

## Bluetooth Transmitter Power (EIRP)

<10 dBm

## Screen Resolution

1920×1080

## Screen Size

5.5 inches

## Screen Frame Rate

60 fps

## Screen Brightness

1,000 nits

## Touch-Screen

10-point multi-touch

## Battery

Lithium-ion battery (5000 mAh, 7.2 V)

## Charging Type

100W Battery Charging Hub or USB charger with 12V or 15V specifications is recommended

## Rated Power

12 Watts

## Storage Capacity

Internal Memory (ROM): 64 GB

Supports microSD card usage to increase storage capacity

## Charging Time

Approx. 1.5 hours (measured when only using the 100W Battery Charging Hub to charge the remote control, or when using a 15V USB charger)

Approximately 2 hours (measured using a 12V USB charger)

Approximately 2 hours and 50 minutes (measured using the 100W Battery Charging Hub to charge the aircraft and remote control at the same time)

## Operating Time

Approx. 3 hours

Video Output Port

Mini-HDMI Port

## Operating Temperature

-10° to 40° C (14° to 104°F)

## Storage Temperature Range

<1 month: -30° to 60° C (-22° to 140° F)

One to three months: -30° to 45° C (-22° to 113° F)

Three to six months: -30° to 35° C (-22° to 95° F)

More than six months: -30° to 25° C (-22° to 77° F)

## Charging Temperature

5° to 40° C (41° to 104° F)

## Supported DJI Aircraft [10]

DJI Mavic 3E

DJI Mavic 3T

DJI Mavic 3M

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## GNSS

GPS + Galileo + GLONASS

## Dimensions

Antenna is folded and no control sticks are installed:

183.27×137.41×47.6 mm (Length×Width×Height)

Antenna unfolded and control sticks are installed:

183.27×203.35×59.84 mm  
(Length×Width×Height)

## Weight

Approx. 680 g

## Model Number

RM510B

## STORAGE

### Supported microSD Cards

Aircraft:

Please use a memory card with a speed rating of V30 or higher, or use a memory card from the recommended list

### Recommended microSD Cards

Remote Controller:

SanDisk Extreme PRO 64GB V30 A2  
microSDXC

SanDisk High Endurance 64GB V30  
microSDXC

SanDisk Extreme 128GB V30 A2 microSDXC

SanDisk Extreme 256GB V30 A2 microSDXC

SanDisk Extreme 512GB V30 A2 microSDXC

Lexar 667x 64GB V30 A2 microSDXC

Lexar High-Endurance 64GB V30  
microSDXC

Lexar High-Endurance 128GB V30  
microSDXC

Lexar 667x 256GB V30 A2 microSDXC

Lexar 512GB V30 A2 microSDXC

Samsung EVO Plus 64GB V30 microSDXC  
Samsung EVO Plus 128GB V30 microSDXC  
Samsung EVO Plus 256GB V30 microSDXC  
Samsung EVO Plus 512GB V30 microSDXC  
Kingston Canvas Go! Plus 128GB V30 A2  
microSDXC  
Kingston Canvas React Plus 128GB V90 A1  
microSDXC

Aircraft:

SanDisk Extreme 32GB V30 A1 microSDHC  
SanDisk Extreme PRO 32GB V30 A1  
microSDHC

SanDisk Extreme 512GB V30 A2 microSDXC

Lexar 1066x 64GB V30 A2 microSDXC

Kingston Canvas Go! Plus 64GB V30 A2  
microSDXC

Kingston Canvas React Plus 64GB V90 A1  
microSDXC

Kingston Canvas Go! Plus 128GB V30 A2  
microSDXC

Kingston Canvas React Plus 128GB V90 A1  
microSDXC

Kingston Canvas React Plus 256GB V90 A2  
microSDXC

Samsung PRO Plus 256GB V30 A2 microSDXC

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# MAVIC 3 MULTISPECTRAL



## BATTERY

**Capacity** 5000 mAh

**Standard Voltage** 15.4 V

**Max Charging Voltage** 17.6 V

**Battery Type** LiPo 4S

**Chemical System** Lithium Cobalt

**Energy** 77 watt-hours

**Weight** 335.5 g

**Charging Temperature**

5° to 40° C (41° to 104° F)

## RTK MODULE

### Dimensions

50.2×40.2×66.2 mm (Length×Width×Height)

### Weight

24±2 g

### Interface

USB-C

### Power

Approximately 1.2 watts

### RTK Position Accuracy

Fixed RTK:

Horizontal: 1 cm + 1 ppm; Vertical: 1.5 cm + 1 ppm

## NOTES

### Footnotes

1. Standard weight of the aircraft (including battery, propellers, and microSD card). The actual product weight may vary due to differences in batch materials and external factors. Use for reference only.
2. The max speed in the EU cannot exceed 19 m/s.
3. Max wind resistance during takeoff and landing.
4. Data measured using the DJI Mavic 3M in a wind-free environment while flying at sea level at a constant speed of 36 kph until there was 0% power remaining. For reference only. Please pay attention to Return to Home prompts in the DJI Pilot 2 app when flying.
5. Data measured using the DJI Mavic 3M in a wind-free environment hovering over the sea level until there was 0% power remaining. For reference only. Please pay attention to Return to Home prompts in the DJI Pilot 2 app when flying.
6. Data measured using the DJI Mavic 3M in a wind-free environment while flying at sea level at 57.6 kph until there was 0% power remaining. For reference only. Please pay attention to Return to Home prompts in the DJI Pilot 2 app when flying.
7. In some countries, the 5.1/5.8GHz frequencies are prohibited, or the 5.1GHz frequency is only allowed for indoor use. Please refer to local laws and regulations before use.
8. Data measured flying in an unobstructed outdoor environment free of interference. It shows the farthest communication range for one-way, non-Return to Home flights under each standard. Please pay attention to Return to Home prompts in the DJI Pilot 2 app when flying.
9. Data measured in an unobstructed environment with typical interference under various standards. The actual flight distance may vary and is for reference only.
10. The DJI RC Plus will support more DJI aircraft in the future.

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## BATTERY CHARGER

### Input

100V to 240V (AC), 50Hz to 60Hz, 2.5A

### Output Power

100 Watts

### Output

Maximum output power of 100 Watts (total)

When both the ports are used, the maximum output power of one interface is 82 W, and the charger will dynamically allocate the output power of the two interfaces according to load power.

## CHARGING HUB

### Input

USB-C: 5V to 20V, 5.0A

### Output

Battery Port: 12V to 17.6V, 8.0A

### Rated Power

100 Watts

### Charging Type

3 batteries on charging rotation

### Charging Temperature

5° to 40° C (41° to 104° F)