

DJI Mavic 3M

Effective aerial surveying needs to see the invisible. That's why Mavic 3 Multispectral has two forms of sight. It combines an RGB camera with a multispectral camera to scan and analyze crop growth with total clarity. Agricultural production management requires precision and data, and Mavic 3M delivers both.

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 mins [4]
Max Hover Time (without wind)	37 mins [4]
Max Flight Distance	32 km [6]
Max Pitch 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

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 Timed: 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

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)

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 2×2 MIMO Wi-Fi
Wi-Fi Operating Band [7]	2.400-2.4835 GHz 5.150-5.250 GHz 5.725-5.850 GHz
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
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

	<p>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</p> <p>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</p>
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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)

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)

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 Positioning Accuracy	Fixed RTK: Horizontal: 1 cm + 1 ppm; Vertical: 1.5 cm + 1 ppm

Notes

Footnotes	<ol style="list-style-type: none">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 Pro will support more DJI aircraft in the future.
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Others

Guaranteed software updates until	2024/12/31
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