



## MATRICE 4 Series

### The Age of Intelligent Flight

DJI's latest compact, intelligent multi-sensor flagship drone series for enterprise industries. The series includes the Matrice 4T and Matrice 4E, each equipped with advanced features including smart detection and measurement with laser range finder.

### AIRCRAFT

<b>Dimensions:</b>	260.6×113.7×138.4 mm (Folded) ; 307.0×387.5×149.5 mm (Unfolded, propellers excluded)		
<b>Max. Take-off Weight:</b>	1420 g (Standard propellers) ; 1430 g (Low-Noise propellers)		
<b>Propeller size:</b>	27,4 cm	<b>Max Altitude:</b>	6000 m ; 4000 m (with payload)
<b>Max Payload:</b>	200 g	<b>Max Horizontal Speed:</b>	21 m/s forward 18 m/s backward 19 m/s sideways
<b>Max Ascent Speed:</b>	10 m/s ; 6 m/s (with accessories)	<b>Max Wind Speed Resistance:</b>	12 m/s
<b>Max Decent Speed:</b>	8 m/s ; 6 m/s (with accessories)	<b>Max Flight Time:</b>	49 min (standard propellers) 46 min (low-noise propellers)
<b>Diagonal Wheelbase:</b>	438.8 mm	<b>Max Hover Time:</b>	42 min (standard propellers) 39 min (low-noise propellers)
<b>Max Pitch Angle:</b>	35°	<b>Operating Temperature:</b>	-10°C to 40°C
<b>GNSS:</b>	GPS;Galileo;BeiDou;GLONASS	<b>Hovering Accuracy Range:</b>	±0.1 m (with Vision System) ±0.5 m (with GNSS) ±0.1 m (with RTK)
<b>RTK GNSS Accuracy:</b>	Hor: 1 cm + 1 ppm Vert: 1.5 cm + 1 ppm (vertical)	<b>Beacon:</b>	Built into the aircraft
<b>Propeller Model:</b>	1157F (standard propellers) 1154F (low noise propeller)		

#### Ports:

E-Port interface × 1: Supports official accessories and third-party PSDK devices (hot-swapping is not supported)  
E-Port Lite interface × 1: supports USB connection to DJI tuning software and some third-party PSDK devices.

### CAMERA

<b>Image Sensor</b>	<u><a href="#">DJI Matrice 4T</a></u>	Wide:	1/1.3-inch CMOS, Effective Pixels: 48 MP
		Medium Tele Camera:	1/1.3-inch CMOS, Effective Pixels: 48 MP
		Telephoto:	1/1.5-inch CMOS, Effective Pixels: 48 MP
	<u><a href="#">DJI Matrice 4E</a></u>	Wide:	4/3-inch CMOS Effective Pixels: 20 MP
		Medium Tele Camera:	1/1.3-inch CMOS, Effective Pixels: 48 MP
		Telephoto:	1/1.5-inch CMOS, Effective Pixels: 48 MP
<b>Lens</b>	<u><a href="#">DJI Matrice 4T:</a></u>	FOV:	82°
		Equivalent Focal Length:	24 mm
		Aperture:	f/1.7
		Focus:	1 m to ∞

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<u>DJI Matrice 4E:</u>	FOV:	84°
	Equivalent Focal Length:	24 mm
	Aperture:	f/2.8-f/11
	Focus:	1 m to ∞
- Medium Tele Camera:	FOV:	35°
	Equivalent Focal Length:	70 mm
	Aperture:	f/2.8
	Focus:	3 m to ∞
- Tele Camera:	FOV:	35°
	Equivalent Focal Length:	70 mm
	Aperture:	f/2.8
	Focus:	3m to ∞

#### ISO Range

<u>Normal Mode:</u>	ISO 100 to ISO 25600	
<u>Night Scene Mode:</u>	<u>DJI Matrice 4T</u>	<u>DJI Matrice 4E</u>
- Wide Camera:	ISO 100 to ISO 409600	ISO 100 to ISO 204800
- Medium Tele Camera:	ISO 100 to ISO 409600	ISO 100 to ISO 409600
- Tele Camera:	ISO 100 to ISO 819200	ISO 100 to ISO 409600

#### Shutter Speed

<u>DJI Matrice 4T:</u>	2-1/8000 s	
<u>DJI Matrice 4E:</u> (Wide Camera)	Electronic Shutter:	2-1/8000 s
	Mechanical Shutter:	2-1/2000 s
	Medium Telephoto:	2-1/8000 s
	Telephoto:	2-1/8000 s

#### Max Photo Size

	<u>DJI Matrice 4T</u>	<u>DJI Matrice 4E</u>
- Wide:	8064 × 6048	5280 × 3956
- Medium Telephoto:	8064 × 6048	8064 × 6048
- Telephoto:	8192 × 6144	8192 × 6144

#### Minimum Photo Interval

0.7 s	0.5 s
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#### Still Photography Modes

	<u>DJI Matrice 4T</u>	<u>DJI Matrice 4E</u>
- Single:	12 MP/48 MP	20MP
- Interval:	12 MP/48 MP	20MP
- JPEG:	0.7/1/2/3/5/7/10/ 15/20/30/60 s	0.5/0.7/1/2/3/5/7/10/ 15/20/30/60 s
- Smart Shooting:	12MP	20MP
- Panorama:	12 MP (raw image) 100 MP (stitched image)	20 MP (raw image) 100 MP (stitched image)

#### Medium Tele Camera

- Single:	12 MP and 48 MP	12 MP and 48 MP
- Interval:	12 MP/48 MP	12 MP/48 MP
- JPEG:	0.7/1/2/3/5/7/10/ 15/20/30/60 s	0.5/0.7/1/2/3/5/7/10/ 15/20/30/60 s
- Smart Shooting:	12MP	12 MP

#### Telephoto

- Single:	12 MP and 48 MP	12 MP and 48 MP
- Interval:	12 MP/48 MP	12 MP/48 MP
- JPEG:	0.7/1/2/3/5/7/10/ 15/20/30/60 s	0.5/0.7/1/2/3/5/7/10/ 15/20/30/60 s
- Smart Shooting:	12MP	12 MP

<b>Video Codec and Resolution:</b>	Video Coding Format:	H.264/H.265	<b>Max Video Bitrate:</b>	H.264: 60Mbps
	Coding Strategy:	CBR, VBR		H.265: 40Mbps
	Resolution:	4K: 3840 × 2160@30fps		
	FHD:	1920 × 1080@30fps	<b>Supported File System:</b>	exFAT

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<b>Photo Format:</b>	<u>DJI Matrice 4T</u>	<u>DJI Matrice 4E</u>	
	JPEG	Wide:	JPEG/DNG (RAW)
		Medium Tele Camera:	JPEG
		Telephoto:	JPEG
<b>Video Format:</b>	MP4 (MPEG-4 AVC/H.264)	<b>Digital Zoom</b>	
		Telephoto:	16x (112x hybrid zoom)

## NIR AUXILIARY LIGHT

**Infrared Illumination:** DJI Matrice 4T :\_FOV: 5.7°±0.3°

## LASER MODULE

### Laser Rangefinding

Measurement Range:	1800 m (1 Hz) @20% reflectivity target*
Oblique Incidence Range (1 : 5 Oblique Distance):	600 m (1 Hz)
Blind Zone:	1 m
Distance Measurement Accuracy:	1-3 m: System Error <0.3 m, Random Error <0.1 meters @1σ
Other Distances:	±(0.2+0.0015D) (D represents the measurement distance in meters)

## INFRARED THERMAL CAMERA (DJI Matrice 4T only)

**Thermal Imager:** Uncooled vanadium oxide (VOx)

<b>Lens :</b>	DFOV:	45°±0.3°	<b>Resolution:</b>	640 × 512
	Equivalent focal length:	53 mm	<b>Pixel Pitch:</b>	12 μm
	Aperture:	f/1.0	<b>Frame Rate:</b>	30 Hz
	Focus:	5 m to ∞	<b>Sensitivity:</b>	≤50mk@F1.0

**Temperature Measurement Method:** Spot Meter, Area Measurement

**Temperature Measurement Range** High Gain Mode: -20°C to 150 °C Low Gain Mode: 0°C to 550 °C

**Palette:** White Hot/Black Hot/Tint/Iron Red/Hot  
Iron/Arctic/Medical/Fulgurite/Rainbow 1/Rainbow 2

**Photo Format:** JPEG (8bit) ; R-JPEG (16bit)

**Video Resolution:** 1280 × 1024@30fps (Super Resolution enabled, Night Mode not activated)  
Other conditions: 640 × 512@30fps

**Video Bitrate:** 6.5Mbps (H.264 640 × 512@30fps)  
5Mbps (H.265 640 × 512@30fps)  
12Mbps (H.264 1280 × 1024@30fps)  
8Mbps (H.265 1280 × 1024@30fps)

**Video Format :** MP4 **Digital Zoom :** 28x

### Still Photography Modes

- Single:	1280 × 1024/640 × 512	<b>Photo Resolution (Infrared):</b>	1280 × 1024 (Super Resolution on) 640 × 512 (Super Resolution off)
- Interval:	1280 × 1024/640 × 512		
- JPEG:	0.7/1/2/3/5/7/10/15/20/30/60 s	<b>Infrared Wavelength :</b>	8um to 14um

**Infrared Temperature Measurement Accuracy:** High Gain: ±2°C or ±2%, whichever is greater  
Low Gain: ±5°C or ±3%, whichever is greater

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## GIMBAL

<b>Stabilization System</b>	<a href="#">DJI Matrice 4T</a> 3-axis (tilt, roll, pan)	<a href="#">DJI Matrice 4E</a> 3-axis (tilt, roll, pan)
<b>Mechanical Range</b>	<a href="#">DJI Matrice 4T</a>	<a href="#">DJI Matrice 4E</a>
Gimbal Mechanical Limits:		
Tilt:	-140° to 113°	-140° to 50°
Roll:	-52° to 52°	-52° to 52°
Pan:	-65° to 65°	-65° to 65°
Soft Limits:		
Tilt:	-90° to 35°	-90° to 35°
Roll:	-47° to 47°	-47° to 47°
Pan:	-60° to 60°	-60° to 60°
<b>Controllable Rotation Range</b>	<a href="#">DJI Matrice 4T</a>	<a href="#">DJI Matrice 4E</a>
Tilt:	±90° to 35°	-90° to 35°
Pan:	Not controllable	Not controllable
<b>Max Control Speed (tilt):</b>	100°/s	<b>Angular Vibration Range:</b> ±0.007°
<b>Ingress Protection Rating:</b>	No Standard Protection Level	<b>Operating Temperature:</b> Standard: -10°C to 40°C
<b>Yaw Axis:</b>	Manual operation is uncontrollable The MSDK interface program is controllable	

## SENSING

<b>Sensing Type:</b>	Omnidirectional binocular vision system, supplemented with a 3D infrared sensor the bottom of the aircraft.		
<b>Forward</b>	<b>Backward</b>		
Binocular Measurement Range:	0.4-22.5 m	Measurement Range:	0.4-22.5 m
Measurement Range:	0.4-200 m	Measurement Range:	0.4-200 m
Obstacle Avoidance Speed:	Flight Speed ≤21 m/s	Obstacle Avoidance Speed:	Flight Speed ≤21 m/s
FOV:	90° (horizontal), 135° (vertical)	Field of View (FOV):	90° (horizontal), 135° (vertical)
<b>Lateral</b>	<b>Downward</b>		
Measurement Range:	0.5-32 m	Measurement Range:	0.3-18.8 m
Measurement Range:	0.5-200 m	Obstacle Avoidance Speed:	Flight Speed ≤10 m/s
Obstacle Avoidance Speed:	Flight Speed ≤21 m/s		The FOV to the front and rear is 160° and 160° to the right and left.
FOV:	90° (horizontal), 90° (vertical)		
<b>Operating Environment</b>			
Forward, Backward, Left, Right, and Upward:	Delicate texture on the surface, adequate light.		
Downward:	The ground has rich textures and sufficient lighting conditions*, with a diffuse reflection surface and a reflectivity > 20% (eg walls, trees, people, etc.)		

## VIDEO TRANSMISSION

<b>Video Transmission System:</b>	O4 Enterprise	<b>Operating Frequency:</b>	2.400-2.4835 GHz 2.400-2.4835 GHz 5.725-5.850 GHz 5.150-5.250 GHz (CE)
<b>Live View Quality</b>			
Remote Controller:	1080p/30fps		
<b>Transmitter Power (EIRP):</b>		<b>Max Transmission Distance (with interference)</b>	
2.4 GHz: ≤33 dBm (FCC), ≤20 dBm (CE/SRRC/MIC)		Strong Interference:	City Centers (approx. 1.5-5 km)
5.8 GHz: <33 dBm (FCC), <30 dB (SRRC), <14 dBm (CE)		Medium Interference:	Suburban Areas (approx. 5-15 km)
5.15-5.25: < 23 dBm (FCC/CE)		Micro interference:	Suburbs/Seasides (approx. 15-25 km)

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**Max Transmission Distance (unobstructed, no interference):**

25 km (FCC)  
 12 km (CE)  
 12 km (SRRC)  
 12 km (MIC)

**Max Download Speed:**

100°/s

**Antenna:**

8 antennas, 2T4R

**Other:**

Cellular Dongle Compartment

**Latency (depending on environmental conditions and mobile device):**

130 ms

**MEMORY CARD****Supported SD Cards**

U3/Class10/V30 or above is required or use a memory card from the recommended list.

**Recommended microSD Cards**

Lexar 1066x 64GB U3 A2 V30 microSDXC  
 Lexar 1066x 128GB U3 A2 V30 microSDXC  
 Lexar 1066x 256GB U3 A2 V30 microSDXC  
 Lexar 1066x 512GB U3 A2 V30 microSDXC

Kingston Canvas GO! Plus 64GB U3 A2 V30 microSDXC  
 Kingston Canvas GO! Plus 128GB U3 A2 V30 microSDXC  
 Kingston Canvas GO! Plus 256GB U3 A2 V30 microSDXC  
 Kingston Canvas GO! Plus 512GB U3 A2 V30 microSDXC

**INTELLIGENT FLIGHT BATTERY**

**Capacity:** 6741 mAh  
**Max Charging Voltage:** 17.0 V  
**Energy:** 99.5 Wh  
**Recharging Temperature:** 5°C to 40°C  
**Max Charging Power:** 1.8C  
**Cycle Count:** 200

**Standard Voltage:** 14.76 V  
**Cell Type:** Li-ion 4S  
**Weight:** 401 g  
**Discharge Rate:** 4C  
**Supports low-temperature charging:** Not supported

**POWER ADAPTER (100W)**

**Input:** 100-240 V (AC), 50-60 Hz, 2.5 A  
**Rated Power:** 100 W

**Output:** Max. 100 W (total)

**CHARGING HUB**

**Input:** USB-C : 5-20 V, max 5A  
**Rated Power:** 100 W

**Output:** Battery Interface: 11.2 V to 17 V  
**Charging Temperature:** 5° to 40°C

**Compatible Battery:** DJI Matrice 4E/T Series Intelligent Flight Battery

**Recharging Type:** 4 batteries charging in sequence | Support Standard Mode (100% SOC) and Standby Mode (90% SOC)

**DJI RC PLUS 2 ENTERPRISE**

**Video Transmission System:** O4 Enterprise

**Antenna:** 2T4R, built-in multi-beam high-gain antenna

**Max Transmission Distance:** 25 km (FCC)  
 (unobstructed, free of interference) 12 km (CE)  
 12 km (SRRC)  
 12 km (MIC)

**Operating Band of Image Transmission:**  
 2.4000-2.4835 GHz  
 5.725 - 5.850 GHz  
 5.1GHz (receive only)

**Video Transmission Transmitter Power (EIRP):**

2.4 GHz: <33 dBm (FCC), <20 dBm (CE/SRRC/MIC)  
 5.1 GHz: <23 dBm (CE)  
 5.8 GHz: <33 dBm (FCC), <14 dBm (CE), <30 dBm (SRRC)

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<b>4G Transmission:</b>	DJI Cellular Dongle 2		
<b>Wi-Fi Protocol:</b>	Wi-Fi Direct, Wireless Display, IEEE 802.11a/b/g/n/ac/ax Support 2 × 2 MIMO Wi-Fi, Dual Band Simultaneous (DBS) with dual MAC, up to 1774.5 Mbps data rate (2 × 2 + 2 × 2 11ax DBS)		
<b>Wi-Fi Operating Band:</b>	2.4000-2.4835 GHz 5.150-5.250 GHz 5.725-5.850 GHz		
<b>Wi-Fi Transmitter Power (EIRP):</b>	2.4 GHz: <26 dBm (FCC), <20 dBm (CE/SRRC/ MIC) 5.1 GHz: <23 dBm (FCC) 5.8 GHz <23 dBm (FCC/SRRC), <14 dBm (CE)		
<b>Bluetooth Protocol:</b>	Bluetooth 5.2	<b>Bluetooth Operating Frequency:</b>	2.400-2.4835 GHz
<b>Bluetooth Transmitter Power (EIRP):</b>	<10 dBm	<b>Screen Resolution:</b>	1920 × 1200
<b>Screen Size:</b>	7.02 inches	<b>Screen Frame Rate:</b>	60 fps
<b>Brightness:</b>	1400 nits	<b>Touchscreen Control:</b>	10 Points Multi-touch
<b>Built-in Battery:</b>	252P High Energy Density 18650 Lithium-ion Battery (6500 mAh @ 7.2 V) 46.8 Wh		
<b>External Battery:</b>	Optional, WB37 (4920 mAh @ 7.6 V) 37 Wh		
<b>Recharging Type:</b>	Supports PD fast charging, with a maximum specification of 20 V/3.25 A USB Type-C charger.		
<b>Storage Capacity:</b>	ROM 128 G + expandable storage via microSD card		
<b>Charging Time:</b>	2 hrs for internal battery or internal and external battery.		
<b>Internal Battery Runtime:</b>	3.8 hrs	<b>External Battery Runtime:</b>	3.2 hrs
<b>Output Port:</b>	HDMI 1.4	<b>Speaker:</b>	Supports buzzer
<b>Audio:</b>	Array MIC	<b>Operating Temperature:</b>	-20° to 50°C
<b>Storage Temperature</b>		<b>Dimensions:</b>	268×163×94.5 mm (L×W×H)
Within one month:	-30° to 45° C	<b>Weight:</b>	1.15 kg (without external battery)
One to three months:	-30° to 35° C	<b>Model:</b>	TKPL 2
Three months to one year:	-30° to 30° C	<b>System Version:</b>	Android 11
<b>Recharging Temperature:</b>	5° to 40° C	<b>Accessory:</b>	Optional strap/waist support
<b>Supported Aircraft Models:</b>	Support for Matrice 4T/4E		
<b>GNSS:</b>	GPS, Galileo, and BeiDou triple-mode, supports dynamic Home Point refresh.		
<b>External Interfaces:</b>	HDMI 1.4, SD3.0, Type-C supports OTG, supports PD charging, maximum power 65W, USB-A supports USB 2.0 interface.		

## AL1 SPOTLIGHT

<b>Weight:</b>	92.5 g (including bracket) Approx. 90 g (excluding bracket)	<b>Dimensions:</b>	73×70×52 mm (L×W×H, including bracket) 73×70×47 mm (L×W×H, without bracket)
<b>Max. Power:</b>	15 W	<b>Effective Broadcast Distance:</b>	300 m
<b>Max. Volume:</b>	At 1 meter, it can reach 114 decibels	<b>Operating Temperature:</b>	-20°C to 50°C
<b>Weight:</b>	99 g (including bracket) Approx. 91 g (excluding bracket)	<b>Dimensions:</b>	95×164×30 mm (L×W×H, including bracket) 79×164×28 mm (L×W×H, without bracket)
<b>Max. Power:</b>	32 W	<b>Illuminance:</b>	4.3±0.2 lux @ 100 meters, 17±0.2 lux @ 50m
<b>Operating Mode:</b>	Supports always-on and strobe modes.	<b>Gimbal Structural Design Range:</b>	Tilt: -140° to 50°

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<b>Controllable Range:</b>	Tilt: -90° to 35°	<b>Max Control Speed (tilt):</b>	120°/s
<b>Gimbal Alignment Accuracy:</b>	±0.1°	<b>Operating Temperature:</b>	-20°C to 50°C
<b>Mounting:</b>	Quick-release hand-tightened screws	<b>Effective Illumination Angle:</b>	23° (10% relative illumination)
<b>Effective Illumination Area:</b>	1,300 square meters @ 100 meters (10% relative illumination, Normal Mode) 2,200 square meters @ 100 meters (10% central illuminance, Wide fov Mode)		

## AS1 SPEAKER

<b>Weight:</b>	92.5 g (including bracket) Approx. 90 g (excluding bracket)	<b>Dimensions:</b>	73×70×52 mm (L×W×H, including bracket) 73×70×47 mm (L×W×H, without bracket)
<b>Max. Power:</b>	15 W	<b>Effective Broadcast Distance:</b>	300 m
<b>Max. Volume:</b>	At 1 meter, it can reach 114 decibels (114dB@1m)	<b>Operating Temperature:</b>	-20°C to 50°C
<b>Mounting:</b>	Quick-release hand-tightened screws	<b>Operating Temperature:</b>	-20°C to 50°C

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