



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

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

Image Sensor	<u>DJI Matrice 4T</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>DJI Matrice 4E</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
Lens	<u>DJI Matrice 4T:</u>	FOV:	82°
		Equivalent Focal Length:	24 mm
		Aperture:	f/1.7
		Focus:	1 m to ∞

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

ISO Range	<u>Normal Mode:</u>	ISO 100to ISO25600	
	<u>Night Scene Mode:</u>	<u>DJI Matrice4T</u> ISO	<u>DJI Matrice 4E</u> ISO 100
	- Wide Camera:	100to ISO409600 ISO	to ISO 204800 ISO 100
	- Medium Tele Camera:	100to ISO409600 ISO	to ISO 409600 ISO 100
	- Tele Camera:	100to ISO819200	to ISO 409600

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

Max Photo Size	<u>DJI Matrice4T</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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StillPhotographyModes	<u>DJIMatrice4T</u>	<u>DJI Matrice 4E</u>
-Single:	12MP/48MP	20MP
-Interval:	12MP/48MP	20MP
-JPEG:	0.7/1/2/3/5/7/10/ 15/20/30/60s	0.5/0.7/1/2/3/5/7/10/ 15/20/30/60 s
-SmartShooting:	12MP	20MP
-Panorama:	12MP(rawimage) 100MP(stitchedimage)	20 MP (raw image) 100 MP (stitched image)

Medium Tele Camera		
-Single:	12MPand48MP	12 MP and 48 MP
-Interval:	12MP/48MP	12 MP/48 MP
-JPEG:	0.7/1/2/3/5/7/10/ 15/20/30/60s	0.5/0.7/1/2/3/5/7/10/ 15/20/30/60 s
-SmartShooting:	12MP	12 MP

Telephoto		
-Single:	12MPand48MP	12 MP and 48 MP
-Interval:	12MP/48MP	12 MP/48 MP
-JPEG:	0.7/1/2/3/5/7/10/ 15/20/30/60s	0.5/0.7/1/2/3/5/7/10/ 15/20/30/60 s
-SmartShooting:	12MP	12 MP

VideoCodecandResolution:	VideoCodingFormat:	H.264/H.265	Max Video Bitrate:	H.264: 60Mbps
	CodingStrategy:	CBR,VBR		H.265: 40Mbps
	Resolution:	4K:3840×2160@30fps		
	FHD:	1920×1080@30fps	Supported File System:	exFAT

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

NIR AUXILIARY LIGHT

Infrared Illumination: DJI Matrice 4T : FOV: 5.7°±0.3°

LASER MODULE

Laser Ranging

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)

Lens :	DFOV: 45°±0.3°	Resolution: 640 × 512
	Equivalent focal length: 53 mm	Pixel Pitch: 12 μm
	Aperture: f/1.0	Frame Rate: 30 Hz
	Focus: 5 m to ∞	Sensitivity: ≤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	Photo Resolution (Infrared): 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	Infrared Wavelength: 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

GIMBAL

Stabilization System	DJI Matrice 4T 3-axis (tilt, roll, pan)	DJI Matrice 4E 3-axis (tilt, roll, pan)
Mechanical Range	DJI Matrice 4T	DJI Matrice 4E
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°
Controllable Rotation Range	DJI Matrice 4T	DJI Matrice 4E
Tilt:	±90° to 35°	-90° to 35°
Pan:	Not controllable	Not controllable
Max Control Speed (tilt):	100°/s	Angular Vibration Range: ±0.007°
Ingress Protection Rating:	No Standard Protection Level	Operating Temperature: Standard: -10°C to 40°C
Yaw Axis:	Manual operation is uncontrollable The MSDK interface program is controllable	

SENSING

Sensing Type: Omnidirectional binocular vision system, supplemented with a 3D infrared sensor the bottom of the aircraft.

Forward

Binocular Measurement Range: 0.4-22.5 m
 Measurement Range: 0.4-200 m
 Obstacle Avoidance Speed: Flight Speed ≤21 m/s
 FOV: **Lateral** 90° (horizontal), 135° (vertical)
 Measurement Range:
 Measurement Range: 0.5-32 m
 Obstacle Avoidance Speed: 0.5-200 m
 FOV: **Operating Environment** Flight Speed ≤21 m/s
 Forward, Backward, Left, Right, and Upward: 90° (horizontal), 90° (vertical)

Backward

Measurement Range: 0.4-22.5 m
 Measurement Range: 0.4-200 m
 Obstacle Avoidance Speed: Flight Speed ≤21 m/s
 Field of View (FOV)-90° (horizontal), 135° (vertical)

Downward

Measurement Range: 0.3-18.8 m
 Obstacle Avoidance Speed: Flight Speed ≤10 m/s
 The FOV to the front and rear is 160° and 160° to the right and left.

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

Video Transmission System:	O4 Enterprise	Operating Frequency:	2.400-2.4835 GHz
			2.400-2.4835 GHz
Live View Quality			5.725-5.850 GHz
Remote Controller:	1080p/30fps		5.150-5.250 GHz (CE)
Transmitter Power (EIRP):		Max Transmission Distance (with interference)	
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)

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

VideoTransmissionSystem: O4Enterprise

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

MaxTransmissionDistance: 25km (FCC)
 (unobstructed,freeofinterference) 12km (CE)
 12km (SRRC)
 12km (MIC)

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

VideoTransmissionTransmitterPower(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)

4G Transmission:	DJI Cellular Dongle 2		
Wi-Fi Protocol:	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)		
Wi-Fi Operating Band:	2.4000-2.4835 GHz 5.150-5.250 GHz 5.725-5.850 GHz		
Wi-Fi Transmitter Power (EIRP):	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)		
Bluetooth Protocol:	Bluetooth 5.2	Bluetooth Operating Frequency:	2.400-2.4835 GHz
Bluetooth Transmitter Power (EIRP):	<10 dBm	Screen Resolution:	1920 × 1200
Screen Size:	7.02 inches	Screen Frame Rate:	60 fps
Brightness:	1400 nits	Touchscreen Control:	10 Points Multi-touch
Built-in Battery:	2S2P High Energy Density 18650 Lithium-ion Battery (6500 mAh @ 7.2 V) 46.8 Wh		
External Battery:	Optional, WB37 (4920 mAh @ 7.6 V) 37 Wh		
Recharging Type:	Supports PD fast charging, with a maximum specification of 20 V/3.25 A USB Type-C charger.		
Storage Capacity:	ROM 128 G + expandable storage via microSD card		
Charging Time:	2 hrs for internal battery or internal and external battery.		
Internal Battery Runtime:	3.8 hrs	External Battery Runtime:	3.2 hrs
Output Port:	HDMI 1.4	Speaker:	Supports buzzer
Audio:	Array MIC	Operating Temperature:	-20° to 50°C
Storage Temperature		Dimensions:	268×163×94.5 mm (L×W×H)
Within one month:	-30° to 45° C	Weight:	1.15 kg (without external battery)
One to three months:	-30° to 35° C	Model:	TKPL 2
Three months to one year:	-30° to 30° C	System Version:	Android 11
Recharging Temperature:	5° to 40° C	Accessory:	Optional strap/waist support
Supported Aircraft Models:	Support for Matrice 4T/4E		
GNSS:	GPS, Galileo, and BeiDou triple-mode, supports dynamic Home Point refresh.		
External Interfaces:	HDMI 1.4, SD3.0, Type-C supports OTG, supports PD charging, maximum power 65W, USB-A supports USB 2.0 interface.		

AL1 SPOTLIGHT

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

Controllable Range:	Tilt: -90° to 35°	Max Control Speed (tilt):	120°/s
Gimbal Alignment Accuracy:	±0.1°	Operating Temperature:	-20°C to 50°C
Mounting:	Quick-release hand-tightened screws	Effective Illumination Angle:	23° (10% relative illumination)
Effective Illumination Area:	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

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