



AUTEL ROBOTICS

Autel Evo Max 4T & 4N Tekniset Tiedot

Aircraft

EVO Max 4T Weight	1620g, (battery and gimbal included)
EVO Max 4N Weigh	1641g, (battery and gimbal included)
Max. Takeoff Weight	1.999g
Dimensions	562*651*147 mm (unfolded, incl. propellers) 318*400*147 mm (unfolded, excl. propellers) 257*145*131 mm (folded, excl. propellers)
Diagonal Wheelbase	1.53 ft / (466mm)
Max Ascent Speed	8m/s
Max Descent Speed	6m/s
Max Horizontal Speed	23m/s (windless near sea level)

*Maximum speed in Ludicrous Mode is 19m/s when operating in EU regions.

Max Takeoff Altitude	13,124ft (4000m)
Max Flight Time (windless)	42 mins
Max Hovering Time (windless)	38 mins
Max Wind Resistance	27mph*

*Takeoff and landing can withstand wind speeds up to 27 mph (12 m/s).

IP Rating	IP43
Max Tilt Angle	35°
Max Angular Velocity	Pitch: 300°/s; Yaw: 120°/s
Operating Temperature	-4°F to 122°F (-20°C to 50°C)
Internal Storage	128GB internal storage, with 64GB of available space*
(Remaining available space will vary with different firmware versions)	

Operating Frequency	2.4GHz/5.8GHz 5.2GHz (only applicable for FCC, CE, and UKCA regions). 900MHz (only applicable for FCC regions).
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GNSS	GPS+Galileo+BeiDou+GLONASS
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Transmitter Power (EIRP)	2.4GHz: <30dBm (FCC), <20dBm(CE/SRRC/MIC) 5.8GHz: <27dBm (FCC/SRRC), <14dBm (CE) 5.15-5.25GHz: <23dBm (FCC/CE) 902-928MHz: <30dBm (FCC) 5.65-5.755GHz: <27dBm (MIC)
Hovering AccuracyVertically:	±0.1 m (when vision systems working normally); ±0.5 m (when GNSS working normally);
Horizontally:	±0.3 m (when vision systems working normally); ±0.5 m (when GNSS working normally);
Wi-Fi Protocol	802.11a/b/g/n/ac/ax / Support 2 x 2 MIMO Wi-Fi
Wi-Fi Operating Frequency	2.400 - 2.4835 GHz; 5.150 - 5.250GHz (CE/FCC/MIC); 5.725 - 5.850 GHz*(Except MIC)
Wi-Fi Transmitter Power (EIRP)	2.400 - 2.4835 GHz FCC: < 30dBm; CE/SRRC/MIC: < 20dBm 5.150 - 5.250GHz FCC/CE/MIC<22dBm 5.725 - 5.850 GHz FCC/SRRC: < 21dBm CE: < 14dBm

Gimbal

Mechanical RangePitch:	-135° to 45°
Yaw:	-45° to 45°
Roll:	-45° to 45°
Controllable Range	-90° to 30°
Stable system	3-axis mechanical gimbal (pitch, yaw, roll)
Max Control Speed	(pitch)200°/sAngular Vibration Range<0.005°

EVO Max 4T Zoom Camera (Telephoto)

Sensor	1/2" CMOS, Effective pixels: 48M
Lens	Focal length: 11.8-43.3mm (35mm, equivalent: 64-234mm)
Aperture:	f/2.8-f/4.8
Focusing distance:	5m ~ ∞
Exposure Compensation	$\pm 3\text{EV}$ 0.3EV/stepISO RangeNormal Mode: Auto: ISO100 ~ ISO6400 / Manual: Photo: ISO100 ~ ISO12800 Video: ISO100 ~ ISO6400Shutter SpeedPhoto: 8s ~ 1/8000s Video: 1s ~ 1/8000s
Max Photo Size	8000×6000
Max Video Resolution	4000×3000

EVO Max 4T Thermal Camera

Thermal Imager	Uncooled VOx MicrobolometerLensFOV: 42°
Focal length:	13mm
Aperture:	f/1.2
Focusing Distance:	6m ~ ∞
Infrared Temperature Measurement	
Accuracy	$\pm 3^{\circ}\text{C}$ or reading $\pm 3\%$ (using the larger value) @ambient temperature range from -4°F to 140°F (-20°C ~ 60°C)
Video Resolution	640×512@25FPS
Photo Size	640×512
Pixel Pitch	12 μm
Temperature Measurement Method	Center measurement, pot measurement, rectangular measurementTemperature Measurement Range -4°F to 302°F , 32°F to 1022°F (-20°C to 150°C , 0 to 550°C)

Temperature Alert	High and low temperature alarm thresholds, reporting coordinates and temperature values
Palette	White Hot/Black Hot/Searing/Rainbow/Grey/Ironbow/Cold and Hot

EVO Max 4N Starlight Camera

Sensor	Effective Pixels: 2.3M Lens Focal Length: 35mm (equivalent 41.4mm)
FOV:	52°
Zoom Range:	1-8x, supports linkage zoom
ISO Range	Auto: ISO100-ISO450000 Super Sensitive Mode: Auto ISO100-ISO450000
Camera Modes	Single shot (default)
Photo Format	JPG
Photo Resolution	1920×1200
Video Format	MP4
Video Resolution	20Mbps (1920×1200 P30)
HDR Video	Auto
Video Output	Super Sensitive Mode: 1920×1200 P30

EVO Max 4N Thermal Camera

Sensor	Uncooled VOx Microbolometer
Lens FOV:	61°
Focal length:	9.1mm
Aperture:	f/1.0
Focusing Distance:	2.2m ~ ∞
Infrared Temperature Measurement Accuracy	±3°C or ±3% of reading (using the larger value) @ ambient temperature range from -4°F to 140°F (-20°C-60°C)
Video Resolution	640×512@30FPS

Photo Size	640×512
Pixel Pitch	12um
Temperature Measurement Method	Center measurement, pot measurement, rectangular measurement
Temperature Measurement Range	-4°F to 302°F, 32°F to 1022°F (-20°C to 150°C, 0 to 550°C)
Temperature Alert	High and low temperature alarm thresholds, reporting coordinates and temperature values
Palette	White Hot/Black Hot/Searing/Rainbow/Grey/Ironbow/Cold and Hot

Wide Camera

Sensor	1/1.28 CMOS, Effective pixels: 50M
LensFOV:	85°
Focal length:	4.5 mm (equivalent: 23 mm)
Aperture:	f/1.9 / AF motor: PDAF focus
Exposure Compensation	±3EV 0.3EV/step
ISO Range	Photo: ISO100~ISO6400 Video: ISO100~ISO64000 (Night scene mode: up to ISO64000)
Shutter Speed	Photo: 8s ~ 1/8000s Video: 1s ~ 1/8000s
Max. Video Resolution	4000×3000
Photo Size	4096*3072

Laser Rangefinder

Measurement Accuracy	± (1 m + D×0.15%) D is the distance to a vertical surface
Measuring Range	5m to 1.2km
Image Transmission	
Operating Frequency	2.4G/5.8G/900MHz* *900MHz is only applicable for FCC regions.

Max Transmission Distance

(unobstructed, free of interference) 12.4 miles/20km (FCC), 4.9 miles/8km (CE)

Independent Networking

Autel Smart Controller V3

Transmitter Power (EIRP)

2.4GHz: <28dBm (FCC), <20dBm (CE/SRRC/MIC)

5.8GHz: <28dBm (FCC/SRRC), <14dBm (CE)

5.15-5.25GHz: < 23dBm(FCC/CE)

902-928MHz: <30dBm (FCC)

5.65-5.755GHz: <27dBm (MIC)

Millimeter-wave Radar Sensing System

Frequency

60GHz/24GHz*

*Please fly safely and comply with your local laws and regulations to use 60GHz.

Sensing Range

60GHz Radar:

Upward: 0.98-787.4in (0.3-20m)

Downward: 5.9-3149.6in (0.15-80m)

Forward and Backward: 0.98-98.43ft (0.3-50m)

24GHz Radar:

Downward: 2.62-39.4ft (0.8-12m) FOV

Horizontal (6dB): $\pm 60^\circ/\pm 22^\circ$ (24G/60G)

Vertical (6dB): $\pm 30^\circ/\pm 20^\circ$ (24G/60G)

Operating Environment

The 60GHz millimeter-wave radar sensing system supports all-weather obstacle avoidance for glass, water, wires, buildings, and trees. Its obstacle avoidance distance varies with the obstacle's ability to reflect electromagnetic waves and its surface size.

The 24Ghz millimeter-wave radar supports downward sensing, and its sensing range varies by the ground material. For example, the sensing range of cement ground is 12 meters, and the sensing range of grass with a thickness of more than 3cm is less than 6 meters.



Visual Sensing System

Obstacle Sensing Range	Forward: 19.7-1220.5in (0.5-31m)
	Backward: 19.7-984.3in (0.5-25m)
	Sideward: 19.7-1023.6in (0.5-26m)
	Upward: 0.66-85.3ft (0.2-26m)
	Downward: 0.98-75.5ft (0.3-23m)
FOV	Forward/Backward Sensor: 60°(H), 80°(V)
	Upward/Downward Sensor: 180°(sideward), 120°
	(forward & backward)

Operating Environment

Forward, Backward, Sideward, Upward: The surface has rich texture, under sufficient lighting environment (>15 lux, normal indoor fluorescent lighting environment) Downward: The surface is a diffuse material with a reflectivity >20% (walls, trees, humans, etc.), under sufficient lighting environment (>15 lux, normal indoor fluorescent lighting environment)

Radar and Visual Sensing Systems

Sensing Range	Forward & Backward: 11.8-1968.5in (0.3-50m)
	Sideward: 19.7-1023.6in (0.5-26m)
	Upward: 0.66-85.3ft (0.2-26m)
	Downward: 0.49-262.5ft (0.15-80m) (60Ghz radar)
FOV	Forward/Backward Sensor: 80°(H), 120°(V)
	Upward/Downward Sensor: 180°(sideward), 120°(forward & backward)

Operating Environment

Forward, Backward, Upward, Downward: supports all-weather obstacle avoidance for glass, water, twigs, buildings and high voltage lines. At least one of the 2 conditions should be met: sufficient lighting or the obstacle has strong reflection ability to electromagnetic waves.

Sideward: The surface has rich texture, under sufficient lighting environment (>15 lux, normal indoor fluorescent lighting environment)

Autel Smart Controller V3

Screen	7.9 inch, 2000nits max. brightness, 2048*1536 resolution
Battery	Capacity: 5800mAh Battery Type: Intelligent Lithium Ion Battery Voltage: 11.55V Energy: 67Wh
Charging time:	120mins
Operating Time	2.5 hours (Max. brightness) 4.5 hours (50% brightness)
Max Transmission Distance (without interference)	12.4 miles/20km (FCC), 4.9 miles/8km (CE)
IP Rating	IP43
Storage	128G
GNSS	GPS+GLONASS+Galileo+Beidou
Operating Temperature	-4°F to 104°F (-20°C to 40°C)
Wi-Fi Protocol Support 2 x 2 MIMO Wi-Fi	WiFi Direct, Wi-Fi Display, 802.11a/b/g/n/ac
Operating Frequency	2.400 - 2.4835 GHz; 5.150 - 5.250GHz*(MIC only); 5.725 - 5.850 GHz*(Except MIC)
Transmitter Power (EIRP)	2.400 - 2.4835 GHz FCC: <23dBm; CE/SRRC/MIC: <20dBm / 5.150 - 5.250GHz MIC: <17dBm 5.725 - 5.850 GHz FCC/SRRC: <22dBm CE: <14dBm

Aircraft Battery

Capacity	8070mAh
Voltage	14.88VBattery
Type	LiPo 4S
Energy	120wh
Net Weight	1.15 lbs (520g)
Charging Temperature	-4° F to 113° F (-20°C to 45°C)

When the temperature is lower than 41° F (5° C), the selfheating function will be automatically activated. There should be at least around 10% of the remaining power for heating.

Hot Swappable Supported

Huom!

- Suuren energiamääränsä takia, akkuja ei voida kuljettaa lentokuljetuksella. Tämän takia Suomessa olemme päättäneet, että toimitukseen ei kuulu vakiona akkuja vaan ne tulee tilata erikseen. Suosittelemme vähintään kolmen akun tilaamista, joka mahdollistaa kolme noin 40 minuutin lentokertaa.
- Autel on tuomassa markkinoille multilatauslaitetta. Tällä hetkellä, useamman akun laturia ei ole toistaiseksi saatavilla (15.8.2023), mutta sen arvioidaan tulevan markkinoille syyskuussa 2023.

Lisätietoa Autel Robotics viralliselta maahantuojalta:

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