



Clifton Cameras Product Specification

DJI Matrice 300 RTK

Dimensions: Unfolded, propellers excluded, 810x670x430mm (LxWxH)

Folded, Propellers included, 430x420x430mm (LxWxH)

Diagonal Wheelbase: 895mm

Weight (with single downward gimbal): Approx. 3.6Kg (without batteries),

Approx. 6.3Kg (with two TB⁴⁰ batteries)

Single Gimbal Damper's Max Payload: 930g

Max Take-off Weight: 9Kg

Operating Frequency: 2.4000 - 2.4835 GHz,

5.725 - 5.850 GHz

EIRP: 2.4000 – 2.4835 GHz:

29.5dBm (FCC); 18.5dBm (CE); 18.5dBm (SRRC); 18.5dBm (MIC)

5.725 – 5.850 GHz

28.5dBm (FCC); 12.5dBm (CE); 28.5dBm (SRRC)

Hovering Accuracy (P-mode with GPS): Vertical

±0.1m (Vision System enabled)

±0.5m (GPS enabled)

±0.1m (RTK enabled)

Horizontal

±0.3m (Vision System enabled)

±1.5m (GPS enabled)

±0.1m (RTK enabled)

RTK Positioning Accuracy: When RTK enabled and fixed:

1cm+ 1ppm (Horizontal)

1.5cm + 1ppm (Vertical)

Max Angular Velocity: Pitch: 300°/s, Yaw: 100°/s

16:9 – 4416 x 2488

1:1 – 2944 x 2944

Max Pitch Angle: 30° (P-mode, Forward Vision System enabled: 25°)



Max Ascent Speed: S mode: 5m/s

P mode: 5m/s

Max Descent Speed (Vertical): S mode: 5m/s

P mode: 4m/s

Max Descent Speed (tilt): S mode: 7m/s

Max Speed: S mode: 23m/s

P mode: 17m/s

Service Ceiling Above Sea Level: 5000m (with 2110 propellers, take-off weight \leq 7 kg) / 7000 m (with 2195 propellers, take-off weight \leq 7 kg)

Max Wind Resistance: Max Wind Resistance 15m/s (12 m/s when taking off or landing)

Max Flight Time: 55 min

Supported DJI Gimbals: Zenmuse XT2/ XT S/ Z30/ H20/ H20T/ DJI P1/ DJI L1

Supported Gimbal Configurations: Single Downward Gimbal, Dual Downward Gimbals, Single Upward Gimbal, Upward and Downward Gimbals, Triple Gimbals

Ingress Protection Rating: IP45

GNSS: GPS + GLONASS + BeiDou + Galileo

Operating Temperature: -20°C to 50°C (-4°F to 122°F)

Remote Controller

Operating Frequency: 2.4000 – 2.4835 GHz, 5.725 – 5.850 GHz

Max Transmitting Distance (Unobstructed, free of interference):

NCC/FCC: 15 km

CE/MIC: 8 km

SRRC: 8 km

EIRP: 2.4000 – 2.4835 GHz:

29.5 dBm (FCC), 18.5dBm (CE), 18.5 dBm (SRRC), 18.5dBm (MIC)

5.725 – 5.850 GHz:

28.5 dBm (FCC); 12.5dBm (CE), 20.5 dBm (SRRC)

External battery: Name: WB37 Intelligent Battery

Capacity: 4920 mAh

Voltage: 7.6V

Type: LiPo

Energy: 37.39Wh



Charging time (using BS60 intelligent Battery Station): 70 minutes (15°C to 45°C); 130 minutes (0°C to 15°C)

Built-in battery: Type: 18650 Lithium battery (500mAh @ 7.2 V)

Charging: Use a USB charger with a specification of 12V / 2A

Rated power: 17W

Charging time: 2 hours and 15 minutes (Using a USB charger with a specification of 12V/2A)

Battery Life: Built-in battery: Approx. 2.5h

Built-in battery + External battery: Approx. 4.5h

USB Power Supply: 5 V / 1.5 A

Operating Temperature: -20°C to 40°C (-4°F to 104°F)

Vision system

Obstacle Sensing Range: Forward/ Backward/ Left/ Right : 0.7 – 40m

Upward/ Downward: 0.6 – 30m

FOV: Forward/ Backward/ Downward: 65°(H), 50° (V)

Left/ Right/ Upward: 75° (H), 60° (V)

Operating Environment: Surfaces with clear patterns and adequate lighting (> 15 lux)

Infrared ToF Sensing System

Obstacle Sensing Range: 0.1 – 8m

FOV: 30° (±15°)

Operating Environment: Large, diffuse and reflective obstacles (reflectivity >10%)

Top and bottom auxiliary light

Effective lighting distance: 5m

FPV Camera

Resolution: 960p

FOV: 145°

Frame rate: 30 fps

Intelligent Flight Battery

Name: TB60

Capacity: 5935 mAh



Voltage: 52.8 v

Battery Type: LiPo 12S

Energy: 274 Wh

Net Weight: Approx. 1.35 kg

Operating Temperature: -20°C to 40°C (-4°F to 104°F)

Ideal Storage Temperature: 71.6°F to 86°F (22°C to 30°C)

Charging Temperature: -4°F to 104°F (-20°C to 40°C)

(When the temperature is lower than 5°C, the self-heating function will be automatically enabled. Charging in low temperature may shorten the lifetime of the battery)

Charging Temperature: Using BS60 Intelligent Battery Station:

220V input: 60 minutes (fully charging two TB60 batteries), 30 minutes (charging two TB60 batteries from 20% to 90%)

110V input: 70 minutes (fully charging two TB60 batteries), 40 minutes (charging two TB60 batteries from 20% to 90%)

BS60 Intelligent Battery Station

Dimensions: 501 *403* 252mm

Net Weight: 8.37 kg

Maximum Capacity: TB60 Intelligent Flight Battery x 8

WB37 Intelligent Battery x 4

Input: 100 – 120 VAC, 50 – 60 Hz / 220 – 240 VAC, 50-60 Hz

Max. Input Power: 1070W

Output Power: 100 – 120 V: 750 W

220 – 240 V: 992 W

Operating Temperature: -4°F to 104°F (-20°C to 40°C)