D-RTK 3 MULTIFUCTIONAL STATION

GNSS RECEIVER

GNSS Frequency:

GPS: L1C/A, L2C, L5

BDS: B1I, B2I, B3I, B1C, B2a, B2b

GALILEO: E1, E5a, E5b, E6

GLONASS: L1, L2

QZSS: L1C/A, L2C, L5

L-Band

System Accuracy*:

Base Station Mode (Broadcast Mode) and Relay Station Mode

Base Station Accuracy:

Single Point Accuracy (Uncalibrated):

Horizontal: 1.5 m (RMS)

Vertical: 3.0 m (RMS)

Satellite-Based Differential Accuracy:

Convergence Time: 20 mins

Horizontal: 30 cm (RMS)

Vertical: 40 cm (RMS)

Network RTK Calibration**:

Horizontal: 1.0 cm (RMS) + 1 ppm

Vertical: 3.0 cm (RMS) + 1 ppm

Rover Station Mode*

RTK Accuracy (Fixed Survey):

Horizontal: 0.8 cm (RMS) + 1 ppm

Vertical: 1.5 cm (RMS) + 1 ppm

RTK Accuracy (Tilt Survey)***:

Angle Range: 0° to 60°

Horizontal: 8 mm + 0.7 mm/° tilt (accuracy <2 cm within 30°)

* Measurement accuracy depends on various factors. This value is obtained under normal conditions with an unobstructed view, good satellite distribution, low ionospheric activity, and no electromagnetic interference or multipath effects.
** Base station calibration coordinate accuracy depends on various factors. For surveying, high-precision flight paths, etc., it is recommended to calibrate during periods of inactive ionosphere, in open, unobstructed environments with no electromagnetic interference or multipath effects, using four or more GNSS systems.
*** Intense vibrations and rapid rotations can affect the accuracy of the inertial measurement unit.

SATELLITE-BASED PRECISE POINT POSITIONING*:

Supported Frequencies: BDS B2b, GALILEO E6**, L-BAND**

Convergence Time: 20 mins

Horizontal: 30 cm (RMS)

Vertical: 40 cm (RMS)

* Measurement accuracy depends on various factors. This value is obtained under normal conditions with an unobstructed view, good satellite distribution, low ionospheric activity, and no electromagnetic interference or multipath effects. Will be supported in later versions.

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DIFFERENTIAL DATA TRANSMISSION FORMAT:

When used as a base station or relay station, records RTCM 3.2 raw observation data in DAT format. In rover station mode or in calibration mode for base and relay stations:

1. Supports RTCM v3.0, v3.1, v3.2, v3.3, MSM4, MSM5, MSM6, MSM7 protocols.
2. It is recommended to use receivers that support four or more GNSS systems.

Initialization Reliability:

>99.9%

VIDEO TRANSMISSION

Video Transmission System:

O4 Enterprise

Operating Frequency:

Relay Station Mode:

O4: 2.4 GHz/5.2 GHz/5.8 GHz

Base Station Mode:

O4: 2.4 GHz/5.8 GHz

Rover Station Mode:

BLE: 2.4 GHz

Transmitter Power (EIRP):

2.4000 GHz to 2.4835 GHz:

<33 dBm (FCC)

＜20 dBm (CE/SRRC/MIC)

5.150 GHz to 5.250 GHz:

<23 dBm (CE/FCC)

5.725 GHz to 5.850 GHz:

<33 dBm (FCC)

<30 dBm (SRRC)

<14 dBm (CE)

Bluetooth:

Protocol: Bluetooth 5.1

Frequency: 2.400 GHz to 2.4835 GHz

Transmitter Power (EIRP): <10 dBm

Max Transmission Distance: (unobstructed, free of interference)

Base Station Mode

Between D-RTK 3 and the aircraft:

FCC: 15 km

SRRC: 12 km

CE/JP: 8 km

Rover Station Mode:

Between D-RTK 3 and mobile devices: 30 m

Measured in an unobstructed outdoor environment free of interference. The above data shows the farthest communication range for one-way, non-return flights under each standard. Always pay attention to RTH reminders in the app during your flight.

Max Transmission Distance in Relay Station Mode (unobstructed, free of interference):

FCC: Between the aircraft and the relay station: 25 km; Between the relay station and the remote controller/DJI Dock 3: 1 km

SRRC: Between the aircraft and the relay station: 12 km; Between the relay station and the remote controller/DJI Dock 3: 1 km

CE: Between the aircraft and the relay station: 10 km; Between the relay station and the remote controller/DJI Dock 3: 300 m

Measured in an unobstructed outdoor environment free of interference. The above data shows the farthest communication range for one-way, non-return flights under each standard. Always pay attention to RTH reminders in the app during your flight. The relay station should be placed in a elevated, unobstructed location to ensure clear communication between the remote controller and the aircraft.

Max Transmission Distance (unobstructed, with interference)

Strong interference: City centers, approx. 1.5-5 km

Medium interference: Suburban areas, approx. 5-15 km

Micro interference: Remote areas/seasides, approx. 15-25 km

Data is tested under FCC standards in unobstructed environments of typical interference. Only to serve as a reference and provides no guarantee as to the actual flight distance.

D-RTK 3 MULTIFUCTIONAL STATION

Max Transmission Distance (obstructed, with interference):
Low Interference and Obstructed by Buildings: approx. 0-0.5 km
Low Interference and Obstructed by Trees: approx. 0.5-3 km
Data is tested under FCC standards in unobstructed environments of typical interference. Only to serve as a reference and provides no guarantee as to the actual flight distance.

Relay Station Range Extension Effect:
Relay Station Performance Enhancement:
Severe obstruction (e.g., buildings, mountains): 3x to 5x performance improvement
Mild obstruction (e.g., trees, glass): 1x to 3x performance improvement

Antenna:
OcuSync 4 directional antennas× 4, 2T4R

The antenna uses a standard reverse polarity SMA connector.

Others:
D-RTK 3 Relay Fixed Deployment Version: Compatible with DJI Cellular Dongle 2

ELECTRICAL PROPERTIES

Power:
D-RTK 3 Multifunctional Station:
Relay Station: 14.5 W*
Base Station: 7 W
Rover Station: 6.2 W
* Maximum power consumption without heating. When connected to a USB-C power supply above 9V, maximum power consumption with heating is 36.5 W.
D-RTK 3 Relay Fixed Deployment Version： Relay Station: 14.5 W**
** Max power consumption without heating. When connected to a PoE power supply of Type 4, maximum power consumption with heating is 36.5 W.

Power Output Port:
D-RTK 3 Multifunctional Station: USB Type-C
D-RTK 3 Relay Fixed Deployment Version: USB Type-C and Ethernet Port (PoE)

Supported Power Adapter:
D-RTK 3 Multifunctional Station:
USB PD 3.0 protocol, output voltage 9V to 15V adapter (e.g., DJI 65W Portable Charger)
When using a non-recommended charger, such as a charger with 5V-output, the D-RTK 3 can be charged only after powering off.
D-RTK 3 Relay Fixed Deployment Version:
DJI Dock 3 PoE Output Port
Third-party PoE Power Supplies:
IEEE 802.3bt Type 4 (PoE++): 52 V to 57 V output, 99.9 W max
IEEE 802.3bt Type 3 (PoE++): 50 V to 57 V output, 60 W max
IEEE 802.3at Type 2 (PoE+): 50 V to 57 V output, 30 W max

Battery Operating Time (Under Normal Temperature)*:
D-RTK 3 Multifunctional Station:
Relay Station: 4 hrs
Base Station： 7 hrs
Rover Station: 10 hrs

D-RTK 3 Relay Fixed Deployment Version:
Relay Station： 4 hrs**

* Battery performance may decrease in low temperatures; it is recommended to use power adapters that support the USB PD 3.0 protocol.

** When powered by PoE, the device battery enters preservation mode and does not fully charge. Upon PoE disconnection, the built-in battery delivers up to 2 hours of runtime.

D-RTK 3 MULTIFUCTIONAL STATION

Ethernet Cable Requirements:
D-RTK 3 Multifunctional Station:
Ethernet not supported
D-RTK 3 Relay Fixed Deployment Version:
Requires Cat 6 twisted-pair cable, ≤100m length, 6-9mm outer diameter.

Battery:
LiPo
Capacity: 6500 mAh
Energy: 46.8 Wh

PHYSICAL CHARACTERISTICS

Operating Temperature:
D-RTK 3 Multifunctional Station: -20° to 55° C (-4° to 131° F)
D-RTK 3 Relay Fixed Deployment Version: -30℃ to 55° C (-22° to 131° F)

1. In normal temperature environments, charging power will be limited if the device shell temperature exceeds 48°C (118.4°F). Full power charging will resume after cooling.
2. After storage/use in low temperatures, the device needs to be brought to a normal temperature environment and allowed to warm up until the internal battery temperature is >0°C (32°F) before charging.
3. After storage/use in high temperatures, the device needs to be brought to a normal temperature environment and allowed to cool down until the internal battery temperature is <45°C (113°F) before charging.
4. When connected to Type 4 PoE power, the D-RTK 3 Relay Fixed Deployment Version enables heating for low-temperature startup.

Altitude:
6000 m

Protection Rating:
D-RTK 3 Multifunctional Station: IP67*
D-RTK 3 Relay Fixed Deployment Version: IP67**

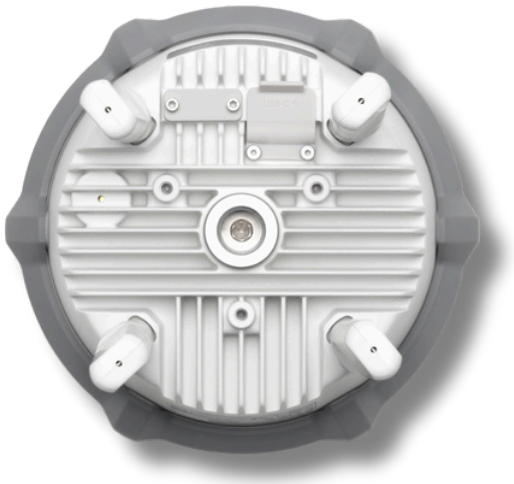
* Please ensure all rubber seals are securely installed for optimal performance.

** The rubber seal on the PoE input port of the Fixed Deployment Version provides IPX5-rated protection. IP67 protection requires installation of the dedicated PoE port connector and cable.

Drop Resistance:
D-RTK 3 Multifunctional Station: 2 m drop with pole

Dimensions:
D-RTK 3 Multifunctional Station: 163 mm × 89 mm (without OcuSync Directional Antennas)
D-RTK 3 Relay Fixed Deployment Version: 163 mm × 344 mm

Weight:
D-RTK 3 Multifunctional Station: Approx. 1.26 kg (2.78 lbs)
D-RTK 3 Relay Fixed Deployment Version: Approx. 2.24 kg (4.94 lbs)



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