AUTEL 102000522 Smart Remote Controller User Guide

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AUTEL 102000522 Smart Remote Controller

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DISCLAIMER

To ensure safe and successful operation of your Autel smart remote controller, please strictly follow the operating instructions and steps in this guide.
If the user does not abide by the safety operation instructions, Autel Robotics will not be responsible for any product damage or loss in use, whether direct or indirect, legal, special, accident or economic loss (including but

not limited to loss of profit), and does not provide warranty service. Do not use incompatible parts or use any method that does not comply with the official instructions of Autel Robotics to modify the product.
The safety guidelines in this guide will be updated from time to time. To ensure you get the latest version, please visit the official website:
https://www.autelrobotics.com

BATTERY SAFETY

The Autel smart remote controller is powered by a smart lithium-ion battery. Improper use of lithium-ion batteries can be dangerous. Please ensure that all the following battery usage, charging and storage guidelines are strictly followed.

WARNING:

- Only use the battery and charger provided by Autel Robotics. It is forbidden to modify the battery assembly and its charger or use a piece of third-party equipment to replace it.
- The electrolyte in the battery is extremely corrosive. If electrolyte spills into your eyes or skin accidentally, please rinse the affected area with clean water and seek medical attention in time.

PRECAUTIONS

When using the Autel smart remote controller (hereinafter referred to as the “remote controller”), if the operation is improper, the aircraft may cause a certain degree of injury and damage to personnel and property. Please be cautious when using it. For details, please refer to the aircraft’s disclaimer and safety operation guidelines.

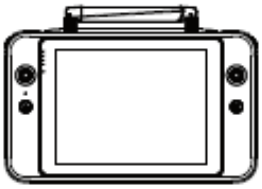
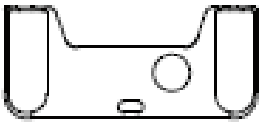
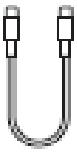
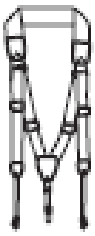
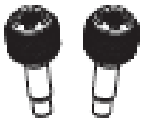
1. Before each flight, make sure that the remote controller is fully charged.
2. Make sure that the remote controller antennas are unfolded and adjusted to a suitable position to ensure it work in the best conditions.
3. If the remote controller antenna is damaged, it will affect the performance, please contact the after-sales technical support in time.
4. If the aircraft is changed, it needs to be repaired before using.
5. Make sure to turn off the aircraft power before turning off the remote controller each time.
6. Make sure to fully charge the remote control every three months.
7. Once the power of the remote control is lower than 10%, please charge the remote in time to prevent the over-discharge issue which caused by the long-time storage with low battery level. When the battery is not in use for a long time, please discharge the battery to about 40%~60% first before storage.
8. Do not block the air outlet of the remote controller, to prevent the remote controller from overheating and performance decrease.
9. Do not disassemble the remote controller. If you need to replace the components, please be sure to contact Autel Robotics after-sales.

AUTEL SMART REMOTE CONTROLLER

The Autel smart remote controller can be used with any supported aircraft, and it provides high-definition real-time image transmission. With the complete function buttons of the remote control, it can control and set up the aircraft and camera up to 13km (8.08miles) [1] communication distance. The remote controller has a built-in 7.9-inch 2048×1536 ultra-high-definition, ultra-bright screen with a maximum 2000nit brightness. It provides clear image display under the strong sunlight. With it built-in 128G memory, it’s convenient to store the video footage in time.

The working time is about 3 hours when the built-in battery is fully charged and the screen is at its maximum brightness [2].

ITEM LIST

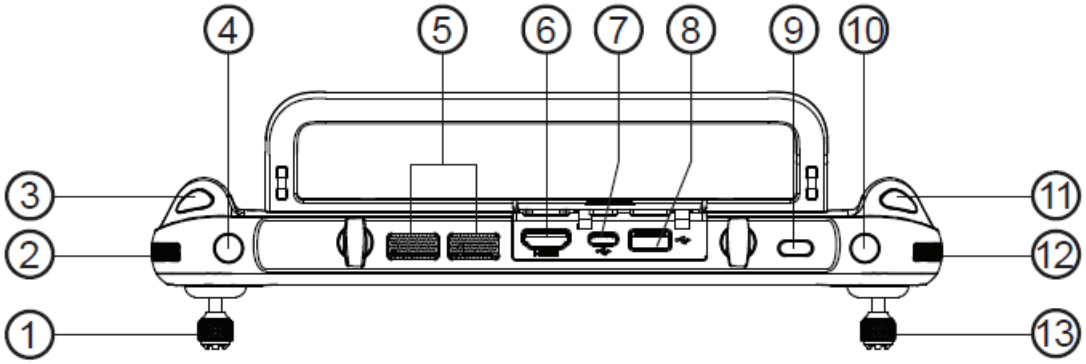
NO	DIAGRAM	ITEM NAME	QTY
1		7.9 inch Smart Remote Controller	1PC
2		Remote Controller Protective Case	1PC
3		A/C adapter	1PC
4		USB Type-C cable	1PC
5		Chest Strap	1PC
6		Spare joysticks	2PCS
7		Documentation (Quick Start Guide)	1PC

1. Fly in an open, unobstructed, electromagnetic interference-free environment, and the flight altitude is about 120

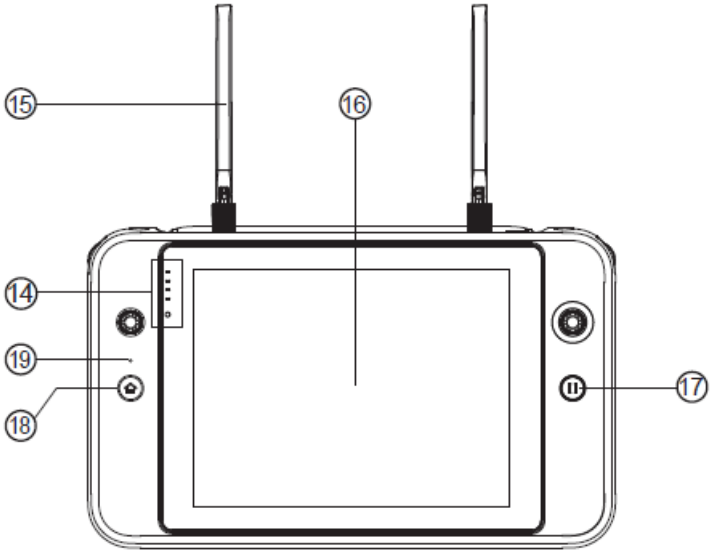
meters (393 feet), the remote controller can reach the maximum communication distance under the FCC standard. Due to interference in the actual flight environment, the maximum communication distance may be less than this nominal distance, and it will vary with the intensity of the interference.

2. The above-mentioned working time is measured in a laboratory environment (temperature is room temperature). The battery life varies in different usage scenarios, which is for reference only.

COMPONENT LAYOUT

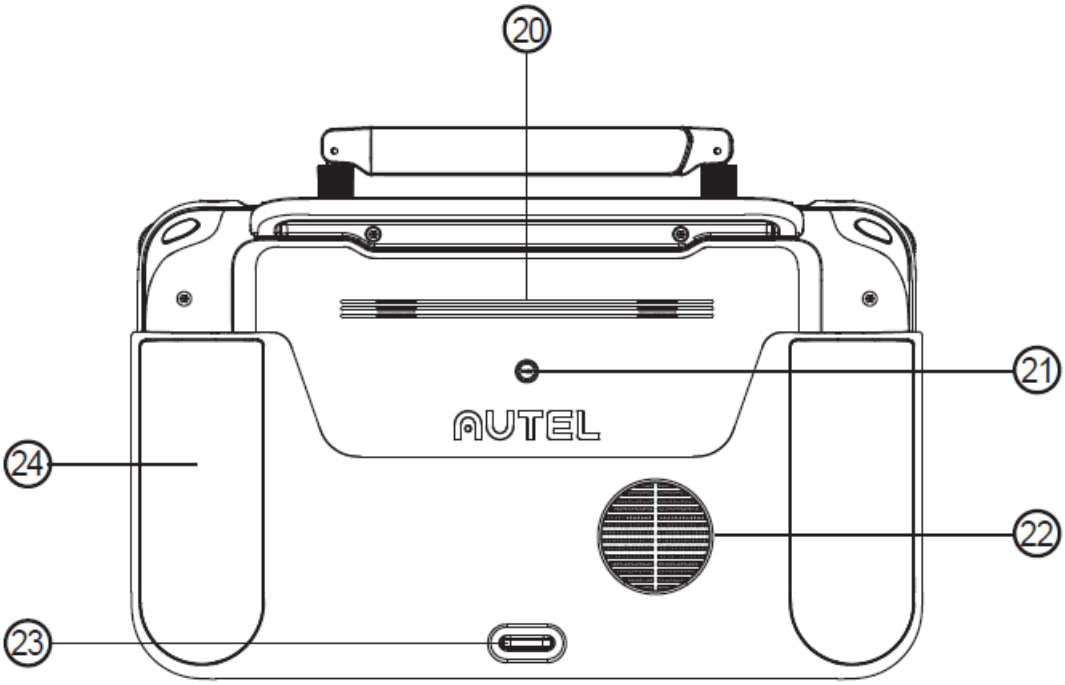


1. Left Joystick
2. Gimbal Pitch Angle Wheel
3. Video Recording Button
4. Customizable Button C1
5. Air outlet
6. HDMI Port
7. USB TYPE-C Port
8. USB TYPE-A Port
9. Power Button
10. Customizable Button C2
11. Gimbal Control Wheel
12. Photo Shutter Button
13. Right Joystick



14. Battery Indicator

15. Antenna
16. Touch Screen
17. Pause Button
18. Return to Home (RTH) Button



19. Micphone
20. Speaker Hole
21. Tripod Mount Hole
22. Air Inlet
23. Bottom Hook
24. Protection Guard

POWER ON THE REMOTE CONTROLLER

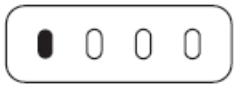
Check Battery Level
Press the power button to check the battery life

	1 light solid on: Battery ≥ 25%
	2 lights solid on: Battery ≥ 50%
	3 lights solid on: Battery ≥ 75%
	4 lights solid on: Battery ≥ 100%

Powering on/off

Press and hold the power button for 2 sec to turn on and off the Remote Controller

Charging
Remote Controller indication light status

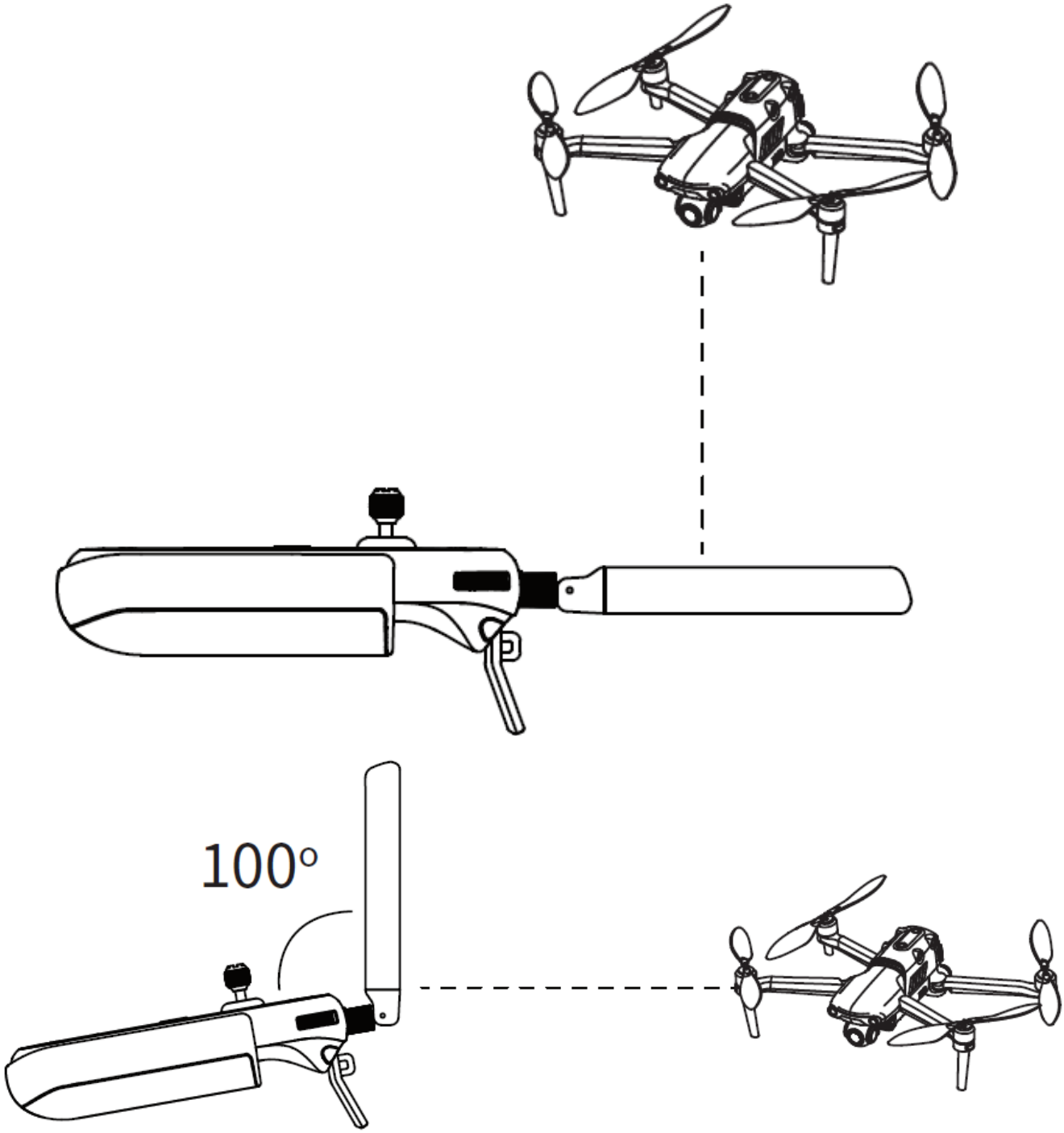
	1 light solid on: Battery ≥25%
	2 lights solid on: Battery ≥50%
	3 lights solid on: Battery ≥75%
	4 lights solid on: Battery ≥100%

NOTE: LED indicator light will blink while charging

ANTENNA ADJUSTMENT

Unfold the remote controller antenna and adjust the antenna angle. The signal strengths varies when the antenna angle is different. When the antenna and the back of the remote controller are at an angle of 180° or 260°, and the antenna surface is facing the aircraft, the signal quality of aircraft and the remote controller will reach the best condition. When controlling the aircraft, please ensure the aircraft is within the best communication range.

NOTE: LED indicator will flash while charging



- Do not use other communication equipment which has the same frequency band at the same time, to avoid interference to the remote controller signal.
- In actual operation, Autel Explorer will prompt when the image transmission signal is poor. Please adjust the antenna angle according to the prompts to ensure that the aircraft is in the best communication range.

FREQUENCY MATCH

When the remote controller and the aircraft are purchased as a set, the remote controller has been matched to the aircraft at the factory, and it can be used directly after the aircraft is activated.
If purchased separately, please use the following methods to link.

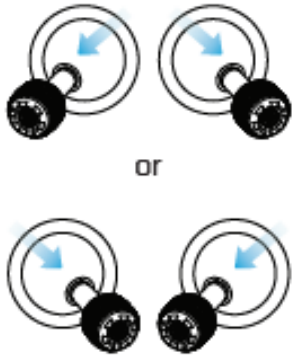
1. Press (short press) the linking button next to the USB port on the right side of the aircraft body to put the aircraft into the linking state;
2. Open the remote controller and run Autel Explorer, enter the mission flight interface, click the gear icon in the

upper right corner, enter the settings menu, click “remote control -> data transmission and image transmission linking> start linking”, wait a few seconds until the data transmission is set correctly and the linking is a success.

FLIGHT

Open the Autel Explorer app and enter the flight interface.
Before takeoff, place the aircraft on a flat and level surface and face the rear side of the aircraft towards you.

Manual takeoff and landing Mode 2
Toe-in or out both hands and stay about 2 sec:

<table>
<tr><th colspan="2">Manual Takeoff</th></tr>
<tr><td> 
</td><td> 
Push up slowly
Left Joystick (mode 2)</td></tr>
<tr><th>Manual landing</th><th>Automatic takeoff and landing</th></tr>
<tr><td> 
Push down slowly
Left Joystick (Mode 2)</td><td> 
Press and hold the
take-off/landing button
3 seconds</td></tr>
</table>

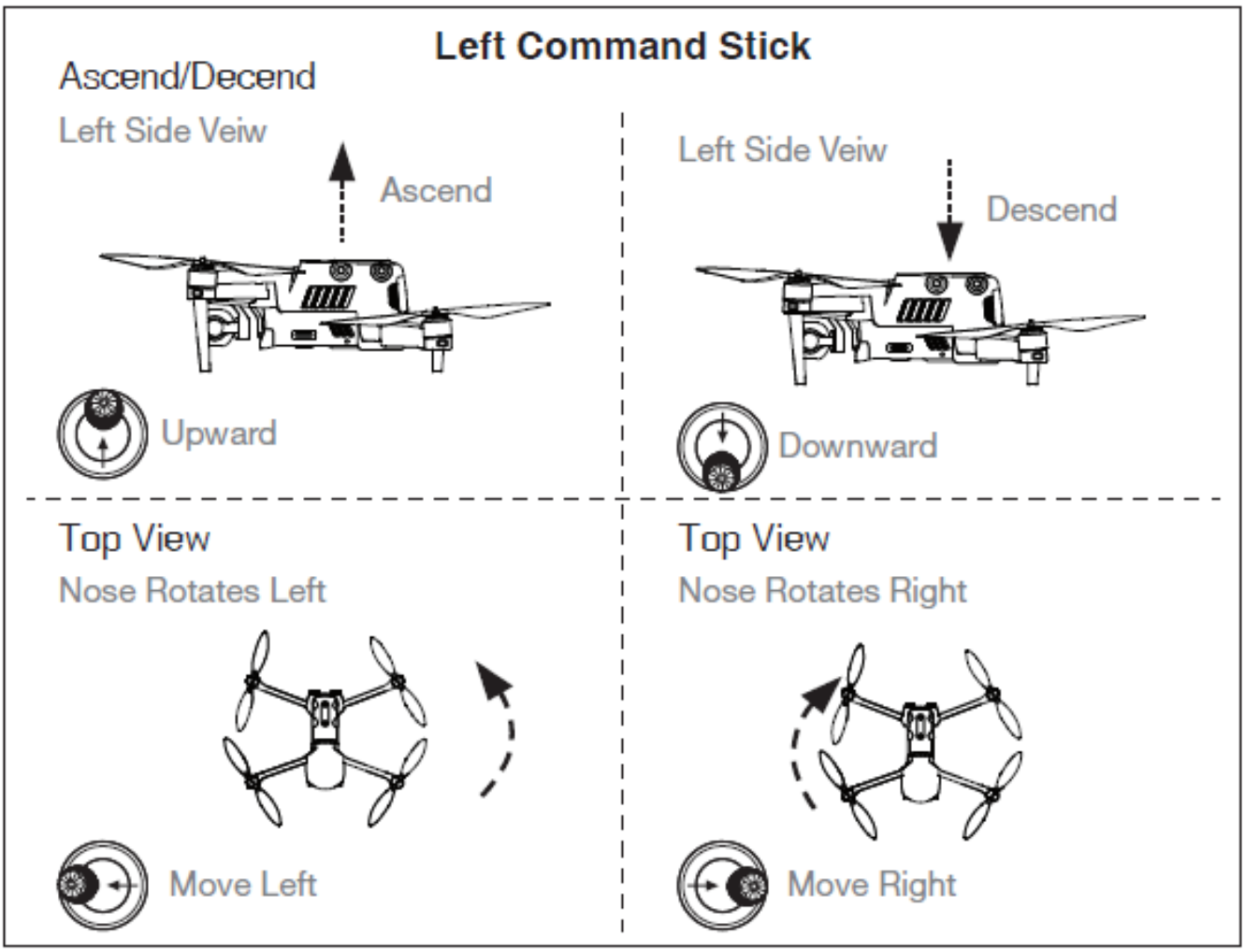
NOTE:
Before takeoff, place the aircraft on a flat and level surface and face the rear side of the aircraft towards you. Mode 2 is the default control mode of the remote controller. During the flight, you can use the left stick to control the flight altitude and direction, and use the right stick to control the forward, backward, left, and right direction of the aircraft.

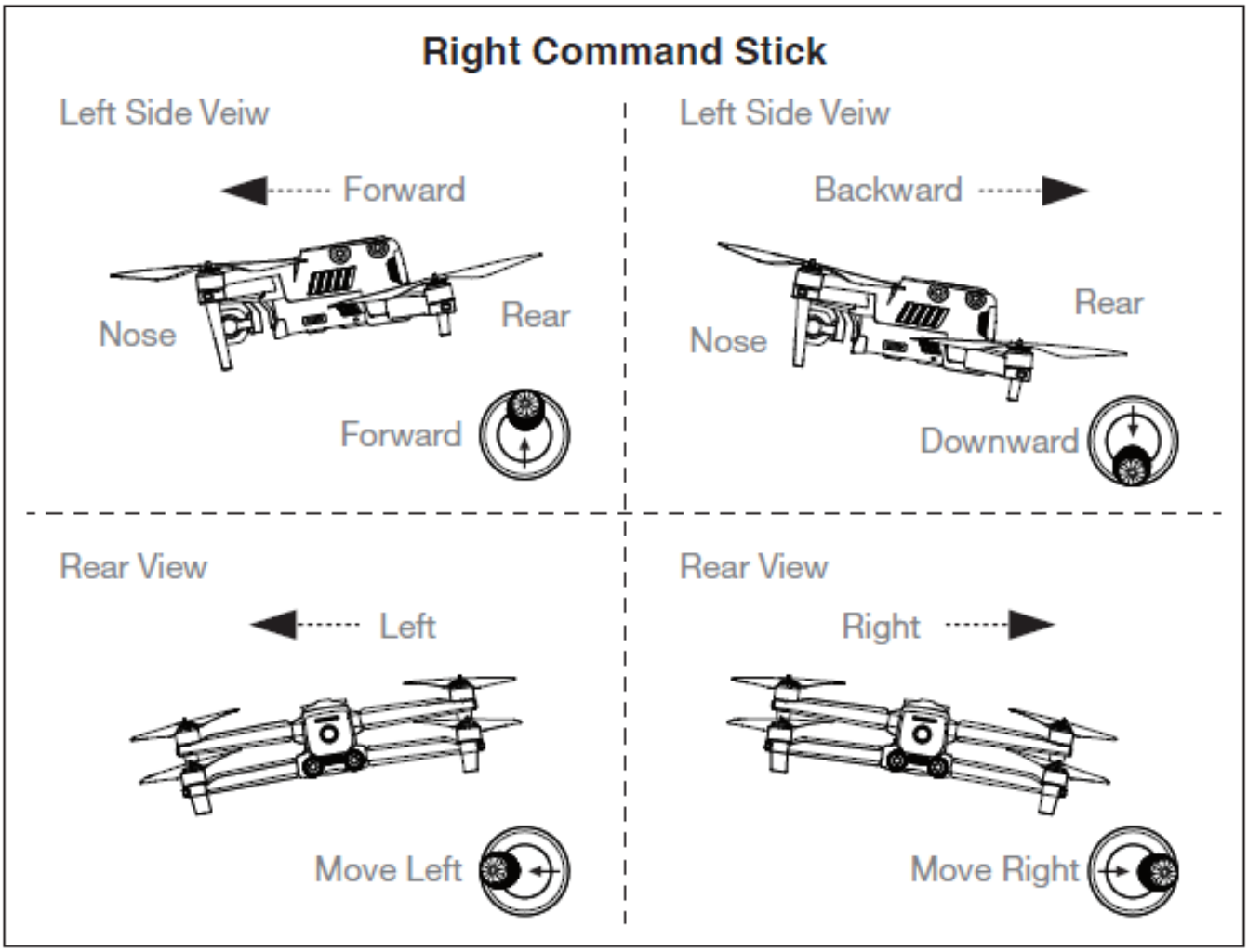
NOTE:

- Please make sure that the remote controller has successfully matched with the aircraft.

- For more functions of the remote controller, please read the user manual for details

Command Stick Control (Mode 2)





Specifications

Image Transmission

- Max Signal Transmission: FCC 13 km
- Distance: CE / MIC 7 km
- (No interference, No obstacles): SRRC 7 km

Digital transmission

- Working Frequency; 5.725 – 5.755 GHz

Wi-Fi

- Protocol: Wi-Fi Direct, Wi-Fi Display, 802.11a/b/g/n/ac Support 2 x 2 MIMO Wi-Fi
- Working Frequency: 2.400 – 2.4835 GHz 5.150 – 5.250GHz 5.650 – 5.755GHz 5.725 – 5.850 GHz 902 – 928MHz

Other Specifications

- **Battery:**

Name: Intelligent Li-ion battery Capacity 5800mAh Voltage 11.55V

Battery Type Li-ion

Battery Energy 67 Wh Charging time 120 min

- **Operating Hours**

  ~ 3h (Max Brightness)

  ~ 4.5 h (50% Brightness)
- **Internal Storage**

  128GB
- **Video Output port**

  HDMI Port
- **USB-A Voltage/Current**

  5V / 2A
- **Operating Environment Temp**

  – 20℃ to 40℃
- **Storage temperature**

  – 20℃ to 60℃ (within a month)

  – 20℃ to 45℃ (between one to three months)

  – 20℃ to 23℃ (one year)
- **Charging Environment Temp**

  0℃ to 40℃
- **Supported Aircrafts**

  EVO II Series EVO II RTK Series
- **Satellite Positioning Module**

  GPS + GLONASS + Galileo
- **Dimensions**

  303×190×87mm (with antenna folded) 303×273×87mm (with antenna unfolded)
- **Weight**

  1150g (without protection case)

  1250g (with protection case)

NOTE:

- When external devices are connected and powered by the remote controller, the battery life may reduce.
- We will support more Autel Robotics aircrafts in the future, please visit our official website **https://www.autelrobotics.com/** for the latest information.

* The working frequency band varies according to different countries and models.

Documents / Resources

AUTEL 102000522 Smart Remote Controller [pdf] User Guide
102000522, Smart Remote Controller, 102000522 Smart Remote Controller

References

- **Autel Robotics Camera Drone, Quadcopter & UAV for Sale | Leader in Drones**