> 🔆 **Tip**
>
> ● For how to turn the auxiliary bottom lights on or off, see "6.4 Shortcut Toolbar" and "6.5.8 More" in Chapter 6.

> ⚠ **Warning**
>
> ● When the auxiliary bottom lights are set to automatic mode, they will turn on automatically at an altitude of 3 meters above the ground when the aircraft is landing and the ambient light is insufficient, and they will turn off automatically after a successful landing.

3.7 Camera*

The Autel Titan aircraft can be equipped with the L35T gimbal, which integrates a high-magnification zoom camera, supporting 35 time optical zoom and 560 times hybrid zoom capability. Moreover it also adopts a wide angle camera, a laser rangefinder, and an dual thermal imaging cameras and provide capabilities such as target thermal imaging, positioning, and ranging for flight operations, enhancing the flying experience in all-day operations.

> 📝 **Note**
>
> ● Autel Titan can also fly without gimbal camera, in this case, the image transmission details are from the front sensing camera.
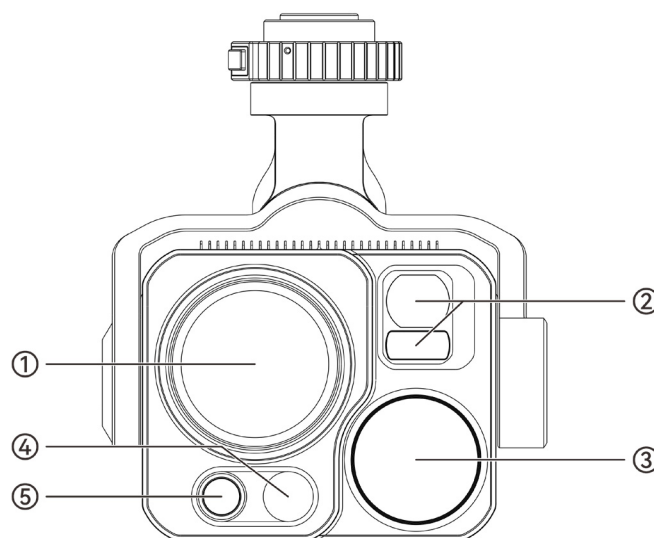
3.7.1 Camera Structure

Fig 3-13   Autel Titan DG-L35T

Table 3-8   DG-L35T Camera Details

No.	Name	Description
1	Zoom Camera	The zoom camera is used to shoot distant scenes, making the distant scenes clearer. 1/1.8" CMOS, 48 million effective pixels, 35x continuous optical zoom, and 560x hybrid zoom.
2	Laser Rangefinder	The distance is accurately determined by measuring the time from the start of the laser emission to the time when the laser is reflected from the target. Measuring range: 10-2000 meters.
3	Infrared Thermal Imaging Camera (45mm Focal Length)	The infrared thermal imaging camera is used for radiometric measurement and night vision, which can monitor the temperature distribution of the measured target in real time, so as to judge the state of the target. Measuring range: 4-50 meters. Resolution: 640*512 Radiometric temperature range: -20℃ ~ +150℃ (high gain mode) and 0℃ ~ + 550℃ (low gain mode).
4	Wide Angle Camera	The wide angle camera is used to capture images with a larger field of view within a shorter shooting distance. 1/2" CMOS, 48 million effective pixels, and supports 8k photos.
5	Infrared Thermal Imaging Camera (13mm Focal Length)	The infrared thermal imaging camera is used for radiometric measurement and night vision, which can monitor the temperature distribution of the measured target in real time, so as to judge the state of the target. Measuring range: 1-25 meters. Resolution: 640*512 Radiometric temperature range: -20℃ ~ +150℃ (high gain mode) and 0℃ ~ + 550℃ (low gain mode).

⚠ **Warning**

- Do not point the infrared thermal imaging camera at intensive energy sources such as the sun, lava, laser beams, and molten iron, to avoid damage to the infrared detector.
- The temperature of the observation target should be less than 600 ℃. Observing objects with temperatures above this limit may result in damage to the infrared detector.
- The laser rangefinder is a Class 1 laser product that emits laser radiation. Avoid direct exposure to the eyes when in use.

3.7.2 Camera Operations

■ Remote Controller Control
- Right dial wheel: Used to adjust the zoom factor of the selected camera. Turn left to reduce the zoom factor, and turn right to increase the zoom factor.

● Video recording button: Press the button to start/end video recording.
● Shooting button: Press the button to take photos.

💡 Tip

● For the control operations of the remote controller, see "4.1.1 Remote Controller Components" in Chapter 4.

■ Autel Enterprise App Control

For the control operations and the functions related to the camera in the Autel Enterprise App, see "6.8 Camera Interfaces" in Chapter 6.

3.7.3 Gimbal Structure

The DG-L35T is equipped with a three-axis stabilized gimbal with a high-precision motor structure, which can ensure stable camera shooting when the aircraft is flying.
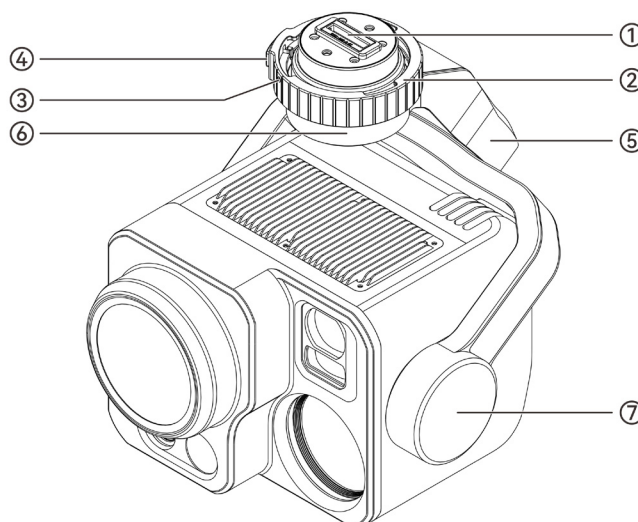

Fig 3-14   Gimbal Structure

Table 3-9   Gimbal Structure Details

No.	Name	Description
1	Connection Slot	The gimbal's connection slot is used to connect with the connector at the aircraft's gimbal interface.
2	Gimbal Lock Ring	The DG-L35T gimbal lock ring features an E-shape design for quick connection to the aircraft's gimbal interface.
3	Lock Ring Marker (Red Dot)	Used to check the installation direction of the gimbal lock ring. When installing the gimbal, rotate the marker point from aligning with the unlock indicator on the aircraft's gimbal interface to the lock indicator.

4	Gimbal lock Button	When installing or removing the gimbal camera, press and hold the gimbal lock button to ensure that the gimbal lock ring is released.
5	Roll Axis Motor	Used to control the moving range of the gimbal to roll left or right (mechanical range: -60° ~ +60°).
6	Yaw Axis Motor	Used to control the moving range of the gimbal to rotate left or right with its own axis (mechanical range: -90° ~ +90°).
7	Pitch Axis Motor	Used to control the moving range of the gimbal to rotate up or down (mechanical range: -135° ~ +45°, controllable movement range: -90° ~ +30°).

> ⚠ **Warning**
>
> ● After using the gimbal for a long time, the gimbal may become hot due to heat dissipation, please wait until the gimbal cools down to avoid any risks of burns.

3.7.4 Gimbal Mechanical Rotation Range

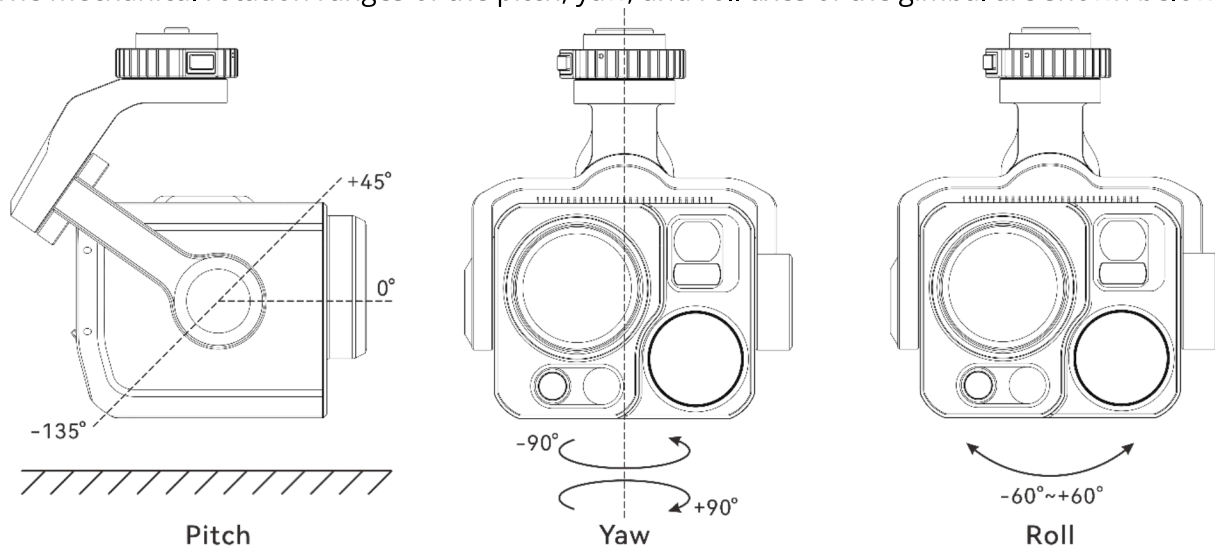The mechanical rotation ranges of the pitch, yaw, and roll axes of the gimbal are shown below.

Fig 3-15   Mechanical Rotation Range of the Gimbal of the Autel Titan Aircraft

> 📝 **Note**
>
> ● You can control the rotation range of the gimbal pitch, ranging from -90° to 30°. For more setting details, see "6.5.6 Gimbal Settings" in Chapter 6.

3.7.5 Gimbal Operations

■ Remote Controller Control

- Left dial wheel: Used to adjust the gimbal pitch. Turn left to rotate the gimbal down, and turn right to rotate the gimbal up.
- Custom keys C1/C2: After setting the C1 or C2 key to "Gimbal Pitch Recenter/45°/Down", you can press the key to switch the gimbal angle.

☀ Tip
● For the control operations of the remote controller, see "4.1.1 Remote Controller Components" and "4.11.1 Custom Keys C1 and C2" in Chapter 4.

■ Autel Enterprise App Control

For the gimbal control operations in the Autel Enterprise App, see "6.8.1 Camera Function Area" in Chapter 6.

⚠ Warning
● When the aircraft is not in use, especially when the aircraft is being transferred or stored, be sure to use the protective cover of the gimbal to fix the gimbal, so as to avoid damage to the gimbal camera due to accidental rotation or bumping.   ● Please remove the protective cover of the gimbal before turning on the gimbal, otherwise, it may cause damage to the gimbal motor and circuit.   ● When turning on the power switch of the aircraft, the gimbal will automatically rotate to perform self-check and calibration, please make sure there is no object near the gimbal to hinder its movement.

3.7.6 Replacing The Gimbal

The Autel Titan aircraft has a removable gimbal design, allowing you to easily replace the gimbal to meet your flight needs in various scenarios.

❗ Important
● Please follow the instructions below to replace the gimbal, as improper replacement may cause damage to the gimbal or poor contact with the gimbal interface.   ● Do not replace the gimbal frequently. The gimbal connector is a precision element, and frequent plugging and unplugging may result in poor contact between the aircraft and the gimbal.   ● Please use the gimbal model specified by Autel Robotics for replacement. Incompatible gimbals may cause damage to the aircraft.

> ⚠ **Warning**
>
> ● Do not attempt to remove or mount the gimbal when it is powered on. Wait for 15 seconds after powering off the aircraft (the internal capacitor is fully discharged) before removing or mounting the gimbal.

■ Mounting the Gimbal

1. Make sure the aircraft is powered off. Remove the protective covers on the gimbal interface and the aircraft's gimbal interface. Align the red dot on the gimbal lock ring with the red dot on the aircraft's gimbal interface.
2. Lift the gimbal camera upward, align the gimbal interface, and insert it into the aircraft's gimbal interface, ensuring a secure connection.
3. Rotate the gimbal lock ring to the direction indicated for locking "🔒" on the aircraft's gimbal interface. After the gimbal camera is locked, you will hear a click sound at the gimbal unlock button.
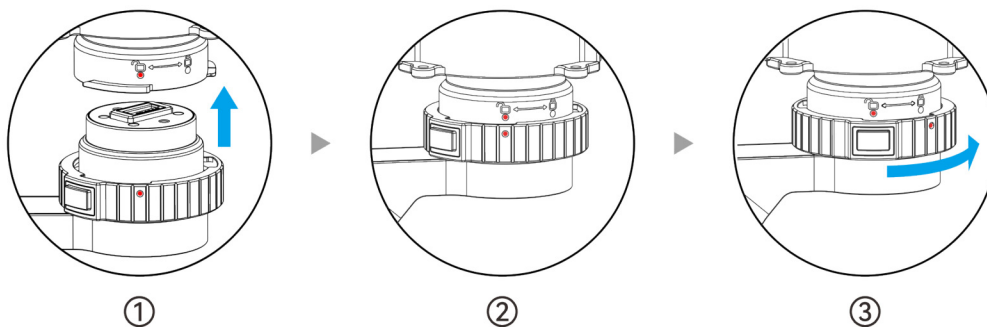

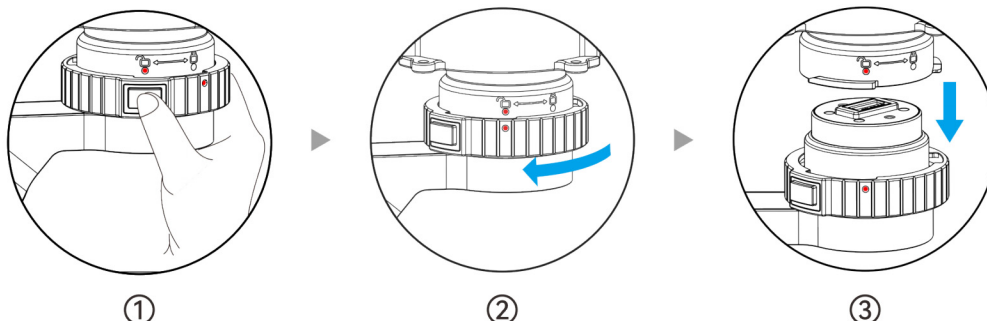
Fig 3-16   Mounting the Gimbal

> ❗ **Important**
>
> ● After installed the gimbal camera, you can try to rotate the gimbal lock ring in the reverse direction (do not press the gimbal unlock button). If the gimbal lock ring cannot rotate, means the gimbal is well installed.
> ● After installing the gimbal camera, please remove the lens cover on the gimbal camera.
> ● Please power on the aircraft for a self-check to ensure the gimbal camera is functioning correctly. During the self-check, the gimbal camera will automatically rotate for calibration. Please make sure there are no obstacles near the gimbal camera.

■ Removing the Gimbal

1. Make sure the aircraft is powered off. Hold the gimbal camera with one hand and press the gimbal unlock button with the other hand.
2. Rotate the gimbal lock ring to the unlocking direction with the unlocking symbol "🔓" on the aircraft's gimbal interface.
3. After unlocking, the gimbal camera will release from the aircraft's gimbal interface.

⚠ **Warning**
● When removing the gimbal, please hold the gimbal camera to prevent it from falling and causing damage.

Fig 3-17   Removing the Gimbal

3.7.7 Other Functions

The DG-L35T gimbal camera supports a lens heating and defog function. When flying and shooting in environments with mist, water vapor may affect the image quality. You can improve this by clicking the " ⚙ " icon in the tool box on the Autel Enterprise App to activate the defog function.
After enabling the defog function, the internal heating wire of the gimbal camera will heat the camera lens for physical defogging. Simultaneously, the captured images will undergo quality improvement and enhance color contrast for a better image/video output.

💡 **Tip**
● For detailed introduction on operating the heating and defogging function, see "6.4 Shortcut Toolbar" in Chapter 6.

3.8 Flight Control System

The Autel Titan aircraft achieves stable and convenient flight control through its built-in intelligent flight control system. The system supports a number of advanced functions, including auto-return, failsafe, visual positioning system, etc.

Table 3-10   Flight Control System

Module	Description
IMU	A three-axis gyroscope and a three-axis accelerometer measure acceleration and angular velocity.
Compass	Measures the geomagnetic field and provides reference information on the aircraft heading.

GNSS receiver	Receives global satellite navigation signals to measure longitude, latitude, and altitude.
Barometer	Measures atmospheric pressure and is used to determine the altitude of the aircraft.
Visual Sensing System	Provides the aircraft with 720° obstacle awareness around the fuselage.
Millimeter Wave Radar	Provides the aircraft with all-day and all-weather obstacle avoidance capabilities.

3.8.1 Flight Status

Depending on the availability of GNSS signals and flight conditions, the aircraft can automatically switch between three modes.

Table 3-11   Flight Status

Mode	Description
GNSS Mode	GNSS mode is activated when the aircraft detects an appropriate GNSS signal. In GNSS mode, if the obstacle avoidance system is turned on, the system will provide auxiliary information to more accurately locate and avoid obstacles, provide stable and smooth flight control, and support auto-return, failsafe, and other safety functions.
Visual Positioning Mode	When the aircraft is in the visual positioning mode, and the GNSS signal detected is not strong enough to activate GNSS mode, and it meets certain environmental and altitude requirements (ensure that the surrounding environment is well-lit, the ground texture is clear, and the altitude of the aircraft must be within the observation range of the visual sensing system), the visual positioning mode will be activated.
ATTI Mode (Attitude Mode)	When there is no GNSS signal and the environment and altitude cannot meet the requirements of the visual sensing system, that is, when there is no GNSS signal and visual positioning failure at the same time, the ATTI mode will be activated. In this mode, the obstacle avoidance system is disabled, and the aircraft only controls the altitude through the barometer.

⚠️ **Warning**

- If you have not fully mastered the flight control of the aircraft and the aircraft is in ATTI mode, please do not take off rashly.

3.8.2 Flight Modes

The aircraft has varying flight performance in different flight modes. You can set the flight mode of the aircraft in the Autel Enterprise App. For more information, see "6.3 Status Notification Bar" and "6.5.1 Flight Control Parameter Setting" in Chapter 6.

Table 3-12   Flight Modes

Flight Modes	Description
Slow	Forward, backward, left, and right: 3 m/s; Ascend: 3 m/s; Descend: 3 m/s.
Smooth	Forward, backward, left, and right: 10 m/s; Ascend: 5 m/s; Descend: 5 m/s.
Standard	Forward and backward: 15 m/s; Left and right: 10 m/s; Ascend: 6 m/s; Descend: 6 m/s.
Ludicrous	Forward, backward, left, and right: 25 m/s; Ascend: 15 m/s; Descend: 10 m/s.

⚠ **Warning**

- If you have not fully mastered the flight control of the aircraft, it is not recommended for you to switch to Ludicrous mode.
- When flying close to the ground, it is recommended to switch to Slow mode for safety.
- When switching to Ludicrous mode, the obstacle avoidance function of the aircraft will become unavailable, and the aircraft will not automatically avoid surrounding obstacles during flight. Please pay attention to the surrounding environment when using it, and manually control the aircraft to avoid obstacles.
- When switching to Ludicrous mode, its flight speed is greatly improved compared with Standard mode, so the braking distance in this mode will be correspondingly extended. You should maintain a braking distance of at least 50 meters when operating the aircraft in this mode to ensure personal and flight safety.

3.8.3 Intelligent Flight Function

■ Accurate Landing

The accurate landing function uses the downward binocular visual sensing system of the aircraft to record the information at its take-off point. When the aircraft is returning to the home point or landing, vision algorithms are used to calculate the distance between the aircraft and the take-off point in real time so as to make sure that the aircraft successfully lands at the take-off point.

■ Landing Protection

The landing protection function uses the downward visual sensing system of the aircraft to create a depth image, then calculate the flatness and angle of the depth image to detect whether the surface is flat enough for a safe landing.

3.8.4 Hot Swap Battery

The Autel Titan aircraft supports hot-swappable batteries, which allows you to replace smart batteries without powering off the aircraft, thus avoiding waiting for rebooting. When performing a hot swap, it is recommended that the interval between changing the two batteries should be longer than 5 seconds to ensure that the new battery can be properly activated when powering on the aircraft.

❗ **Important**
● The detailed introduction for battery replacement please see "5.3.1 Installing/Removing the Smart Battery" in Chapter 5.   ● It is recommended to label the batteries for better management. The two batteries used for replacement should have similar power levels and cycle counts to ensure consistent battery performance.

3.9 Installing the microSD Card

The aircraft comes with a 128 GB microSD card (pre-installed in the microSD card slot of the payload at the factory). If you want to replace it with a higher-capacity microSD card, please follow the steps below.
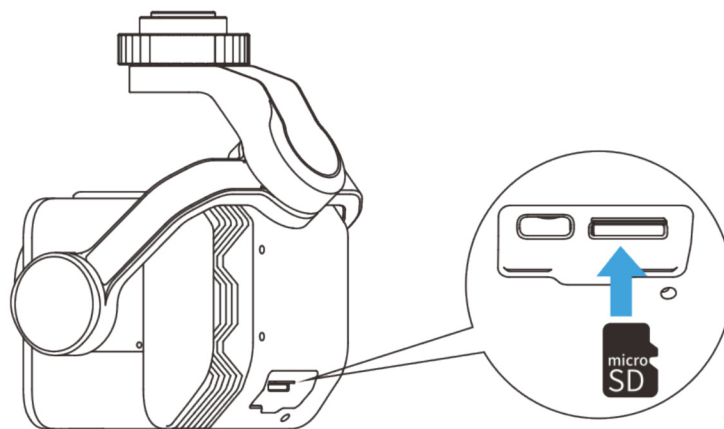

Fig 3-18   Installing the microSD Card

💡 **Tip**
● If you plan to shoot high-definition videos, we recommend using a Class 10, UHS-3, or higher microSD card.

⚠️ **Warning**
● To prevent data loss, please turn off the aircraft before removing the microSD card.   ● After installing the microSD card, close the rubber protective cover over the interface area promptly to avoid affecting the protective performance of the gimbal.

3.10 Connecting to PC/MAC

To transfer photos and videos to a PC, MAC, or other devices, please use a data cable to connect to the device through the USB-C interface of the gimbal.
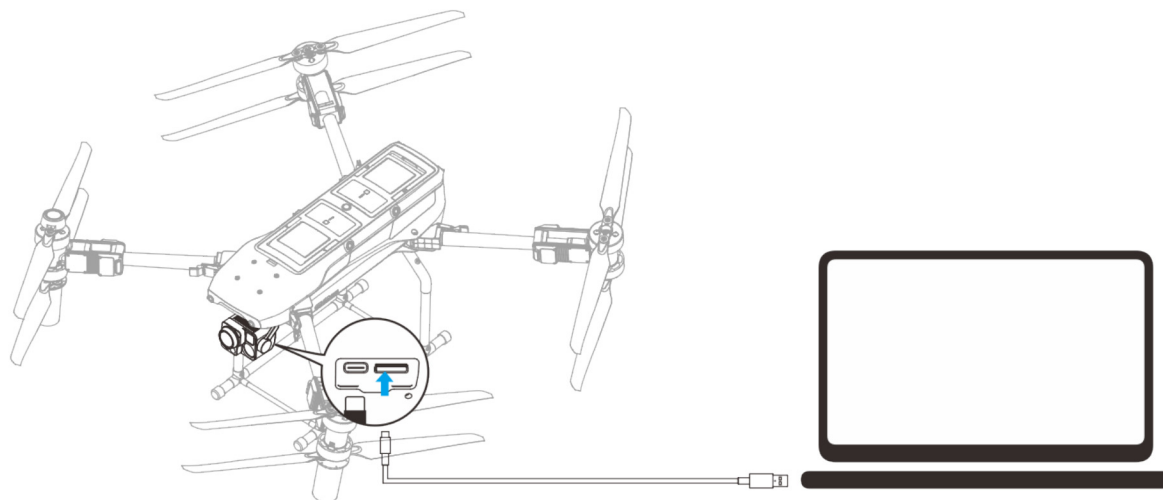

Fig 3-19   Connect to PC/MAC via Gimbal USB-C Interface

⚠ **Warning**

- When connecting the gimbal camera to a PC/Mac, please do not operate the gimbal camera through the remote controller to prevent damage.
- The gimbal camera does not support PC/Mac connection when it is not powered on.

3.11 Extension Interface

The left, right sides and top of the aircraft are provided with expansion interfaces (two PSDK interfaces, one OSDK interface) based on the form of USB Type-C interface, which can provide the aircraft with additional functional expansion devices, such as searchlight, shouting device, upper gimbal and so on.

❗ **Important**

- Mounts for the Autel Titan aircraft are sold separately. If you need a mount, contact Autel Robotics official or authorized dealers.
- Do not plug a device (like charger) that uses other USB-C interface standards into the extension interface, as it may damage the aircraft.
- Before flight, make sure that the external mount is securely connected to the aircraft and the fixing screws are tightened.
- Pay attention to the battery level of the aircraft during flight. Mount operations consume the battery power of the aircraft, which will reduce the flight time of the aircraft.
- After removing an external mount from the aircraft, be sure to close the rubber protective cover over the interface area. Otherwise, the protective performance of the aircraft will be affected.

📝 **Note**

● For external mounts, see "3.2 Aircraft Components" in this chapter for more details.

💡 **Tip**

● Compatible mount list will be updated in further upgrades.

3.12 Protection Rating

Under controlled laboratory conditions, the Autel Titan aircraft (with smart batteries installed) can achieve an IP55 protection rating following IEC 60529 standards. The protection rating is not permanent and may degrade due to long-term wear and tear.
● It is not recommended to fly in rainy conditions. In case of rain during the flight, abort the flight and return to a safe location promptly.
● Before flight, make sure that the battery connector, battery compartment interface, battery surface, and battery compartment surface are dry and water-free before inserting the battery into the aircraft fuselage.
● After completing the flight, wipe off the rainwater on the aircraft fuselage before folding and storing the aircraft to prevent water from entering the aircraft and affecting its protective performance.
● Make sure that the battery connector and surface are dry and water-free before charging the battery.
● Damage caused by immersion in liquid is not covered by the warranty.
The aircraft does not have an IP55 protection rating in the following conditions:
● The aircraft is not installed with a battery or the battery is not properly installed.
● The rubber protective cover at the interface of the fuselage or the gimbal is not properly installed.
● There are other possible damage on the fuselage, such as shell cracks or waterproof adhesive failure.

📝 **Note**

● Please strictly comply with the usage environment restrictions of the aircraft. Using the aircraft beyond specified conditions may lead to aircraft damage or safety incidents.

3.13 Autel SkyLink Image Transmission Function

The Autel Titan aircraft is equipped with Autel SkyLink 3.0 image transmission technology and has 4 image transmission antennas, with 2 channels of transmitting signals and 4 channels of receiving signals, so that the communication distance between the aircraft and the remote controller can reach up to 20 kilometers.

- It supports adaptive frequency hopping transmission of multiple frequency bands, selects the optimal channel according to the electromagnetic interference situation, and has strong anti-interference ability.
- The quality of real-time transmission reaches 1080p/60fps, and it has a high transmission bit rate of 64Mbps and low-latency transmission characteristics.
- The whole link data storage adopts the AES-128 encryption method to ensure that the communication data between end-to-end cannot be monitored.

✎ Note

- The transmission data is based on the remote controller and comes from test data, and the test environment and conditions are different, and the data may be different.
- The transmission range is for reference only. During use, please pay close attention to the quality of the image transmission signal. When the image transmission signal is weak, reduce the flight radius in a timely manner. For more information, see "6.3 Status Notification Bar" in Chapter 6.
- Please note that the maximum communication distance of the included remote controller is 15 kilometers. To achieve a 20-kilometer communication distance with the aircraft, a ground device with stronger communication capabilities is required.

■ Information Of Image Transmission Frequency Bands for Aircraft

The image transmission frequency bands of the Autel Titan comply with regulatory requirements worldwide. The relevant certified frequency bands are listed in the table below.

In actual use, after power-on and paired the aircraft and the remote controller, the Autel Enterprise App in the remote controller will automatically determine the location based on the GNSS information received by the aircraft. It will then automatically select the radio communication frequency band that complies with local regulations for the specific country or region.

☀ Tip

- After the aircraft is paired with the remote controller, the frequency bands between them will be automatically controlled by the Autel Enterprise App based on the geographical information of the aircraft. This is to ensure compliance with local regulations regarding frequency bands.
- Users can also manually select a legal video transmission frequency band. For detailed instructions, see "6.5.4 Image Transmission Settings" in Chapter 6.
- Before flight, please ensure that the aircraft receives a strong GNSS signal after powering on. This allows the Autel Enterprise App to receive the proper communication frequency band.
- When users adopt visual positioning mode (such as in scenarios without GNSS signals), the wireless communication frequency band between the aircraft and remote controller will default to the band used in the previous flight. In this case, it is advisable to power on the aircraft in an area with a strong GNSS signal, then start flight in the actual operational area.

Table 3-13   Autel Titan Aircraft Global Certified Frequency Bands

Operating Frequency	Details	Certified Countries & Regions
2.4G	● BW=1.4M: 2403.5 - 2475.5 MHz ● BW=10M: 2407.5 - 2471.5 MHz ● BW=20M: 2412.5 - 2462.5 MHz	■ Chinese Mainland ■ Taiwan, China ■ USA ■ Canada ■ EU ■ UK ■ Australia ■ Korea ■ Japan ■ Russia
5.8G	● BW=1.4M: 5728 - 5847 MHz ● BW=10M: 5733 - 5842 MHz ● BW=20M: 5738 - 5839 MHz	■ Chinese Mainland ■ Taiwan, China ■ USA ■ Canada ■ EU ■ UK ■ Australia ■ Korea
900M	● BW=1.4M: 904 - 926 MHz ● BW=10M: 909 - 921 MHz ● BW=20M: 914 - 916 MHz	■ USA ■ Canada
5.2G	● BW=1.4M: 5154 - 5246 MHz ● BW=10M: 5157 - 5243 MHz ● BW=20M: 5167 - 5233 MHz	■ USA
	● BW=10M: 5177 - 5243 MHz ● BW=20M: 5187 - 5233 MHz	■ EU ■ UK

📝 **Note**

● Some countries and regions have strict restrictions on the use of radio communication frequency bands. It is crucial to use them legally, and any modification of communication modules is strictly prohibited.
● In Germany there's specific requirements for the 5.2GHz frequency band. Unmanned aerial systems are only allowed to use the frequency within the range of 5170MHz to 5250MHz.
● If flying in any countries not listed in the above table, please consult the local communication management authorities to ensure that the aircraft communication frequency bands comply with local regulatory requirements.

■ Remote Control Devices

The aircraft supports pairing with the Remote Controller for remote communication control over the aircraft.

Table 3-14   Remote Control Device Support List

Control Device Information	Autel Smart Controller V3
Part Number (EAN)	6924991129011
Part Number (UPC)	889520209014
Manufacturer	Autel Robotics
Control Software	Autel Enterprise App
Software Version Requirement	V1.0.0.0 or higher
Supplementary Information	Standard configuration

💡 **Tip**

- Autel Smart Controller V3 is a standard accessory in the aircraft package, and we also provide retail package to choose separately.
- We offer multiple retail versions for Autel Smart Controller V3. Only the remote controller installed with the Autel Enterprise App supports the control of Autel Titan aircraft. Please consult Autel Robotics when making a purchase.
- When using the above devices to remotely control the aircraft, make sure that the control software version meets the above requirements.

Chapter 4 Remote Controller

4.1 Introduction

The Autel Smart Controller V3 is installed with the Autel Enterprise App by default, allowing you to operate and set the aircraft and the gimbal camera and transmit high-definition videos from the gimbal camera in real time. It offers a maximum communication distance of 15 kilometers.

| ✍ Note |
| --- |
| ● The maximum communication distance of the Autel Smart Controller V3 is measured under unblocked and interference-free conditions and is for references only.
● It supports adaptive frequency hopping transmission, selects the optimal channel according to the electromagnetic interference situation, and has strong anti-interference ability.
● The whole link data storage between the aircraft and the remote controller adopts the AES-128 encryption method to ensure end-to-end data communication security. |

4.1.1 Remote Controller Components
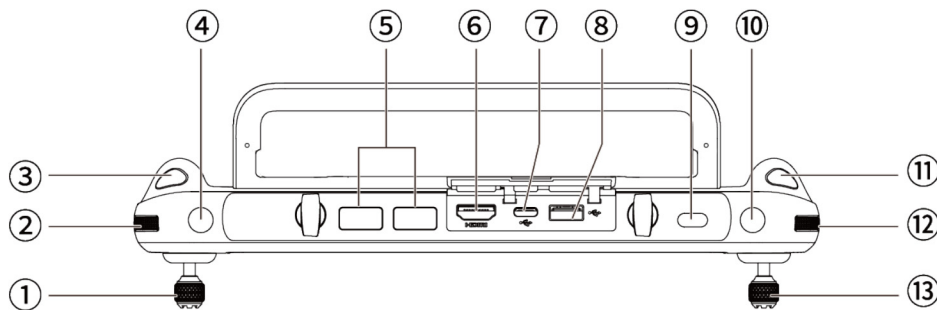
Fig 4-1   Remote Controller Top-Down View

Table 4-1   Remote Controller Top-Down View Details

No.	name	Description
1	Left Command Stick	Controls the state of motion of the aircraft. The default stick mode is Mode 2. In this mode, you can use the stick to control the ascent, descent, and heading of the aircraft. You can set the stick mode in the Autel Enterprise App. For more information, see "6.5.3 RC Settings" in Chapter 6.
2	Left Dial Wheel	Turn the dial wheel to adjust the gimbal pitch.

| 3	Video Recording Button	Tap to start/end recording videos.
4	Key C1	Use the Autel Enterprise App to customize the key function. For more information, see "6.5.3 RC Settings" in Chapter 6.
5	Air Outlet	For heat dissipation of the remote controller. When using it, please pay attention to whether there are foreign objects blocking the air outlet.
6	HDMI Interface	Outputs the live view of the remote controller to a supported display device.
7	USB-C Interface	Used for remote controller charging or device debugging.
8	USB-A Interface	Connects to an expandable 4G/5G module or external USB device for data transmission.
9	Power button	Long press for 3s to turn on/off the remote controller. When the remote controller is on, quickly press the power button to switch between Screen On and Screen Off.
10	Key C2	Use the Autel Enterprise App to customize the key function. For more information, see "6.5.3 RC Settings" in Chapter 6.
11	Shooting Button	Tap to take a photo.
12	Right Dial Wheel	Turn the dial wheel to adjust the zoom factor of the camera.
13	Right Stick	Controls the state of motion of the aircraft. The default stick mode is Mode 2. In this mode, you can use the stick to control the translation of the aircraft in four directions: front/back/left/right. You can set the stick mode in the Autel Enterprise App. For more information, see "6.5.3 RC Settings" in Chapter 6.
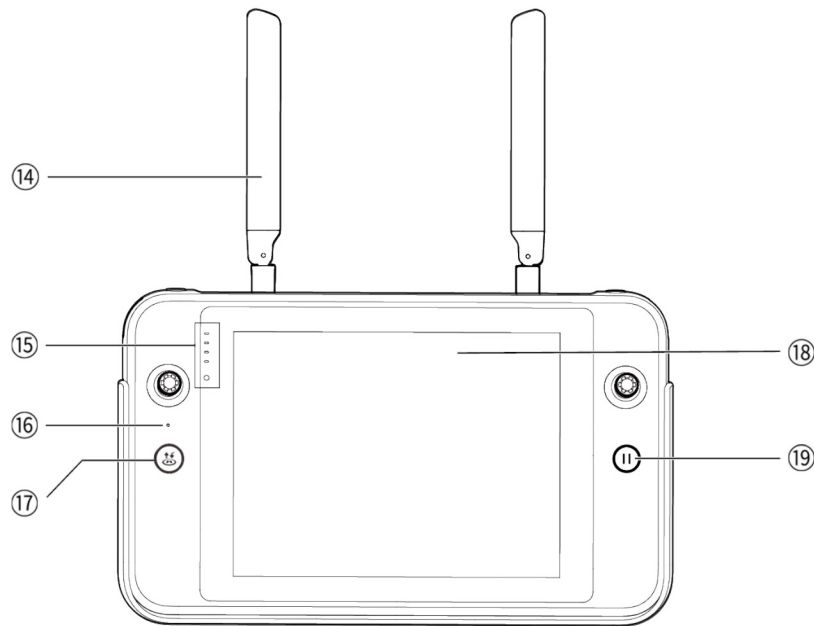
Fig 4-2   Remote Controller Front View

Table 4-2   Remote Controller Front View Details

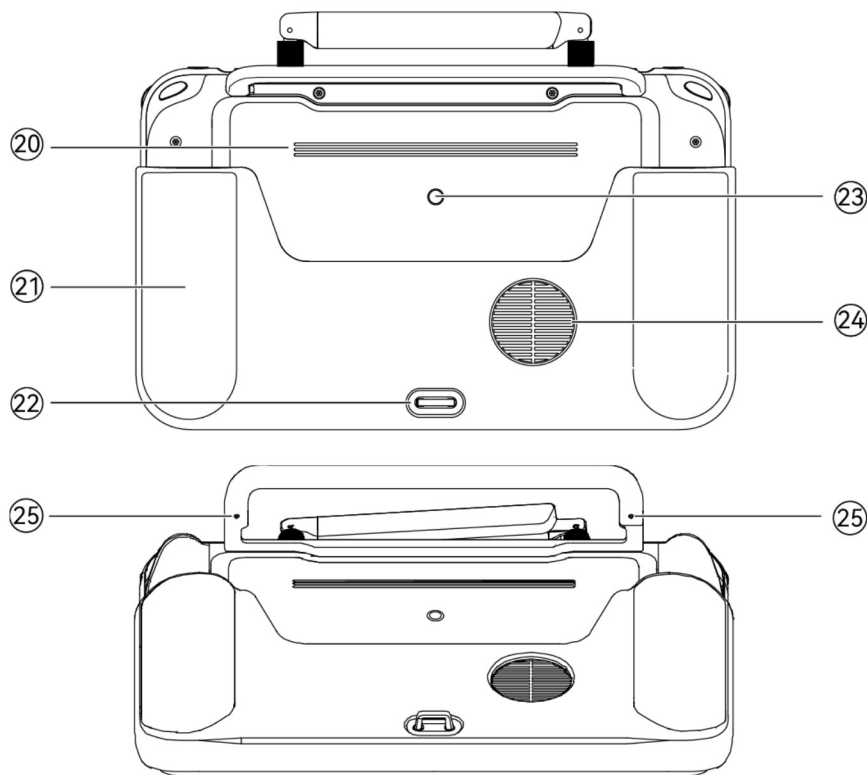| No.	name	Description
14	Antenna	Transmits the control signals of the remote controller and receives the image transmission information of the aircraft.
15	Battery Level Indicator	Displays the remaining battery level of the remote controller.
16	Audio Input	Receives information from an external audio source near the remote controller.
17	Take-off/Return-to-Home Button	When the aircraft is turned on but not taking off, press and hold the button for 2 seconds, and the aircraft will take off and hover at an altitude of 1.5 meters above the ground. When the aircraft is flying, press and hold the button for 2 seconds, and the aircraft will automatically begin the return-to-home process.
18	Display	Displays real-time image transmission views. with 2048×1536 resolution. Touch operation is supported.
19	Pause Button	When the aircraft is in autonomous flight mode, short press this button to control the aircraft to suspend autonomous flight and hover in place or resume autonomous flight; press and hold this button for 2 seconds to exit the autonomous flight.

Fig 4-3   Remote Controller Rear View

Table 4-3   Remote Controller Rear View Details

No.	name	Description
20	Speaker	Plays sound to indicate the status of the aircraft.
21	Protective Cover	Optional accessory. Used to prevent external damage such as collision and abrasion of the remote controller.
22	Lower Hook	Used to connect and fix the remote controller strap.
23	Standard 1/4 interface	Used for attaching tripods.
24	Air Inlet	Used for heat dissipation of the remote controller. Please pay attention to whether there are foreign objects blocking the air inlet when using it.
25	Command Stick Storage Slot	Used to store left and right sticks.

4.1.2 Communication Frequency Bands

The image transmission frequency bands of Autel Smart Controller V3 comply with regulatory requirements worldwide. Please refer to the table below for the relevant certified frequency bands.