

iOSD mini User Manual V1.04

Introduction

DJI iOSD mini is specially designed for DJI autopilot system during the FPV flight or other aero-modeling activities. It can superimpose video and OSD information in real time, to bring users more involved flight experience.

Specified autopilot systems for the iOSD mini:

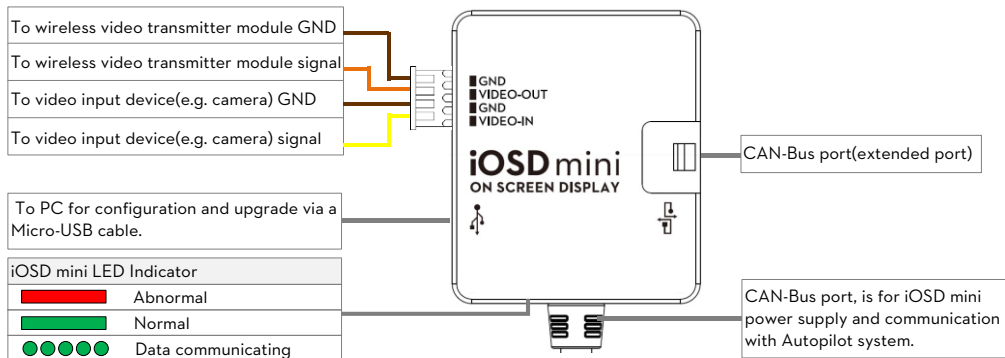
| Autopilot System | Required Accessories | Firmware Version |
|------------------|----------------------|------------------|
| NAZA-M series | NAZA PMU V2 | 4.02 or above |
| WooKong-M series | --- | 5.16 or above |

Specifications

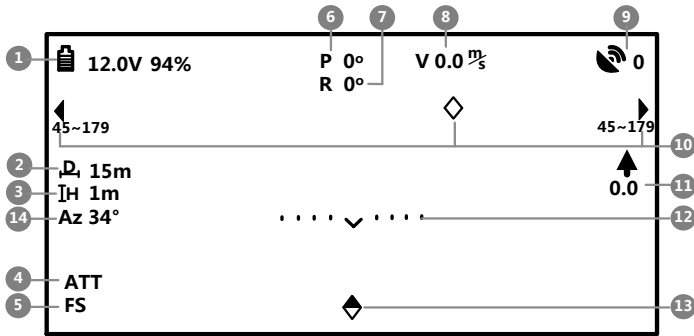
| | | | |
|--------------------|------------|--|------------------------------------|
| Voltage | 6V | Working Current (Typical Value) | 180mA@6V |
| Temperature | -20°C-60°C | Dimension | 33.2mm x 28.2mm x 10.55mm |
| Weight | 14g | Video Input/ Output Mode | PAL/NTSC (automatically recognize) |

Assembly & Connection

1. Prepare the iOSD mini, DJI autopilot system, video input source(e.g. camera), wireless video transmitter module(including transmitter and receiver), monitor, and then assemble all these to aircraft.
2. Connect the iOSD mini according to the following diagram. Connect your wireless video receiver module and monitor correctly.



OSD Display Description



| NO. | Function | Display | Description |
|-----|--|-------------------------|---|
| 1 | Power voltage | 12.0V 94% 45~179 | Real time battery voltage of the aircraft power, unit in V. (For PHANTOM 2 there will be current battery level percentage shown in addition.) Blink: first level low-voltage alert, the alert threshold is same to the protection voltage value set in the assistant software. |
| 2 | Distance between aircraft and home point | unit in m | Show when the home point is successfully recorded |
| 3 | Height | unit in m | Vertical height between the aircraft and the take-off point |
| 4 | Control mode | ATT, M, GPS | <ul style="list-style-type: none"> ● ATT is Atti mode ● M is Manual mode ● GPS is GPS mode |
| 5 | FailSafe mode | FS, APT, GHome | <ul style="list-style-type: none"> ● FS: FailSafe mode ● GHome: Go home status ● APT: Ground station mode |
| 6 | Pitch attitude | P 0° | Positive value means the aircraft nose is pitching up; Negative value means the aircraft nose is pitching down. |
| 7 | Roll attitude | R 0° | Positive value means the aircraft is rolling to right. Negative value means the aircraft is rolling to left. |
| 8 | Flight velocity | 0.0m/s | Horizontal speed of aircraft. |
| 9 | GPS satellite | 0 | Number of GPS satellites acquired. |
| 10 | Aircraft nose direction | | <p>Display the relative angle between the aircraft nose and home point. The aircraft nose is pointing to the home point when the icon is in the middle of monitor screen, which can help users to pull the aircraft back.</p> |
| 11 | Vertical velocity | 0.0 | : Upward speed in vertical direction : Downward speed in vertical direction |

| | | | |
|----|-------------------------|------------------------------|---|
| 12 | Attitude line | | Use for aircraft attitude observation. |
| 13 | Compass error indicator | | Blinking will appear when compass has errors, please calibrate your compass. |
| 14 | Azimuth angle | $Az(0^\circ \sim 360^\circ)$ | <p>Azimuth angle is a horizontal angle measured clockwise from the North base line to the line goes through the home point and aircraft position. Users can locate the aircraft by calculating the aircraft position using Az, D, I_H.</p> |

Install Driver and Assistant Software

1. Please download the driver installer and assistant software from the iOSD mini page of DJI website (www.dji.com).
2. Connect the iOSD mini and the PC via a Micro-USB cable, and power on the iOSD mini system.
3. Run the driver installer, and follow the tips to finish installation.
4. Run the assistant software installer, and follow the tips to finish installation.

Assistant Software Usage

The screenshot shows the iOSD Mini Assistant Software interface. On the left, there is a navigation menu with labels pointing to different parts of the software:

- Language**: Points to the 'English' dropdown menu.
- iOSD Setting**: Points to the 'Main' and 'Info' buttons.
- Software & Firmware Upgrade etc**: Points to the 'Main' button.
- Text Indication**: Points to the 'Adjust' button in the 'Display Setting' section.
- Main Window**: Points to the 'Preview' window.
- Warning Setting**: Points to the 'Warnings Setting' section.
- Data Communication Indicator**: Points to the 'Data Communication Indicator' section.
- PC Connection Indicator**: Points to the 'PC Connection Indicator' section.

The main interface includes:

- Display Setting**: A section with 'Review' and 'Adjust' instructions. A note states: "Note: regulation, you need to real-time observation on the screen display effect, information display can be complete."
- Preview**: A window showing a simulated OSD display with various data points like '12.0V CH', 'P 0°', 'R 0°', '0.0 M/S', 'AV1', 'I_H 1m', and 'ATT FS'. It also has 'Adjust' buttons for 'Left' and 'Right'.
- Warnings Setting**: A section with 'SatNumber: 7', 'Distance: 700 m', and 'Height Range: 0 m to 20 m'. It includes 'Write' and 'Default' buttons.
- Data Communication Indicator**: A section with a 'Data Communication Indicator' label.
- PC Connection Indicator**: A section with a 'PC Connection Indicator' label and a status bar at the bottom that says 'iOSD is successfully connected to Assistant software.'

Trouble Shooting

| NO. | What | Why | How to |
|-----|---|--|---|
| 1 | Only OSD information, video signal loss. | Video input error. | Ensure the connection between iOSD mini and video input port is OK. |
| 2 | Only video signal, OSD information loss. | Connection between iOSD mini and autopilot system error. | Ensure the connection between iOSD and DJI autopilot system is OK. |
| 3 | Both video signal and OSD information loss. | Signal transmission error. | Ensure the communication between the video transmitter and receiver is working correctly. |
| 4 | Both video signal and OSD information loss. | The video signal cable to monitor is unconnected or short circuit. | Ensure the connection of video signal cable is OK. |

Disclaimer

Thank you for purchasing product(s) from DJI Innovations. Please read the instructions carefully before installing the hardware and software for this product, this will ensure trouble free operation of your product. DJI Innovations accepts no liability for damage(s) or injured incurred directly or indirectly from the use of this product.

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