V14 Features and Specifications

Key Features

- EdgeTX open-source system
- Internal ELRS or 4N1 module
- Hall or RDC 90 gimbal sensor
- Compatible with external modules with micro JR bay
- AI voice assistant
- Motion control
- Radio safeguard
- Programmable gimbal LEDs

1. Specifications

Size: 182*132*54mm

Weight: 560g (without battery)

Transmission frequency: 2.400GHz-2.480GHz

Internal module: ExpressLRS or 4N1

Working current: 260mA
Working voltage: 6.6-8.4V DC
Radio firmware: EdgeTX
Display: OLED, or 128*64 Black-and-white LCD
Upgrade method: Supports USB-C online / SD card offline upgrade
Battery Bay: standard 18650 battery bay

2. Special Features

- Place the SWD debugging port of the MCU at the bottom of radio, easier for upgrading and debugging
- Place the headphone jack at the bottom of the radio for easier connection to the headset
- Supports the currently popular ESP32-C3-MINI and XIAO ESP32-C3 Bluetooth modules, providing more possibilities for future applications
- Hardware dual serial port is used to communicate with the external RF module. And a reverse control circuit is designed to support more types of external RF modules
- 6-mode switch can be defined at will. Users can program to customize their functions and corresponding LED colors. Multi-Color LEDs are used, and you can be assured to create your own favorite
- The charging circuit will automatically stop charging when overvoltage is detected in the battery cells, protecting the battery
- Protection circuit is used to avoid damage from any reverse-polarity connection of power supply
- Equipped with a 6-axis gyroscope, it can achieve motion control and head chasing function. When the voice function is turned on, say 'motion control' to the radio, and the gyroscope attitude data will be immediately output to the corresponding control channel. Moving any joystick will immediately stop the motion control mode.
- Programmable colorful gimbal LED, allows users to achieve the dazzling colors they want through simple programming, adding color to their flight
- Intelligent voice interaction control circuit to achieve true human-machine interaction. Users can customize their voice and create their own style of voice control function
- Equipped with 3 voltage and current measurement units with an accuracy of +-0.1%, which can independently measure the voltage of a single battery cell of the radio, monitor the charging voltage and current in real time to prevent overcharging of the single battery cell, and no longer require manual correction. They can measure and display the working voltage and current of the overall system, as well as internal/external RF module, in real time. It will give alarm or shut down the system, if abnormal voltage or current is detected. The radio and modules will always be in good protection.

4. AI Voice assistant: basic usage

a. press TELE button, Voice->LUA Power Switch -> on

b. Say "Hello Radio" to the remote control to activate the voice assistant, recognize and respond to subsequent control commands. The timeout after waking up is 8 seconds. If there is no valid voice within 8 seconds, it enters sleep mode and needs to be activated again.

c. The effective voice commands and corresponding control responses generated are as attached file.

d. CH5 CH6 will be taken when AI voice assistant is activated. Press TELE button to the menu. Make the setup to release CH5 CH6

5. AI Voice assistant: customized usage

customize voice commands：as attached file

Voice Assistant Upgrade instructions: as attached file

6. Motion control

a. use the voice command “motion control” to activate this function

b. sticks have priority over motion control. Motion control will be deactivated once move any sticks. And the sticks tolerant area is adjustable. Press TELE button to the menu.

c. the sensitivity of the motion control is adjustable. Press TELE button to the menu.

d.Headchasing

Press TELE button to the menu. TELE->Headchasing CH78

Notice: When you use headchasing function, the switches or potentiometers corresponding to CH7 CH8 CH9 are able to trigger the deactivation of motion control.

7. Radio safeguard

a. external module protection

Notice: the external might not be able to be activated if protection is on and current is set to be low.

b. charge protection

Notice: the battery might not be able to be fully charged if charge protection is on. If the voltage of a single cell exceeds 4.2V, it will be forcibly stopped to ensure safe charging.

8. Firmware upgrade

a. When the remote control is turned on, connect the USB at the top to the computer, select "USB Memory (SD)" on the remote control, and a USB flash drive will appear on the computer.

b. copy the firmware from computer to the FIRMWARE folder in the SD card.

c. exit USB memory, disconnect the USB cable, and turn off the radio.

d. squeeze the T1,T4 button towards the center, while power on the radio, for about 3 seconds.

e. press confirm, select the firmware, and long press confirm to start upgrading. Press RTN once completed. Please repeat the above steps if upgrading fails.