H100 Handheld remote control User Manual

Remote Control H series: 1.4GHz
Version: 20250501V1.1

Version history

Date	Version	Modification instructions
20250320	V1.0	Initial version
20250501	V1.1	Re-typesetting

Catalogue

1. Product Overview

The H100 handheld all-in-one remote control is equipped with Rock chip RK3588 octa-core processor and runs on Android 12. It is equipped with a 2W high-power TDD integrated image and data radio. The video transmission radio has functions such as real-time interference detection, adaptive frequency selection, adaptive code stream, automatic retransmission and automatic power control, which greatly improves the anti-multipath and anti-interference capabilities. It features high reliability, good stability and low latency. Under good environmental conditions, it can transmit over 30 kilometers from air to ground.

2. Product Features

(1) The H100 is equipped with Rock chip's RK3588 octa-core processor and runs on Android 12.

(2) The H100 supports a variety of interfaces such as HDMI output, SIM 4G card, TF card, USB interface, 1 serial port, 1 network port, and dual SBUS.

(3) The H100 is made of aviation aluminum alloy material. With a reasonable structural design, it ensures a small volume, light weight and a good hand feel.

(4) The H100 is equipped with a 10.1-inch anti-glare AG industrial touch screen and a 1000CD/m2 sunlight-readable screen.

(5) The H100 is equipped with a high-energy-density lithium-ion battery that can operate for 6 hours on a full charge. It supports PD/QC protocol charging and can be powered by a power bank when the battery is low during outdoor use.

(6) The H100 supports 1 SBUS output, with up to 22 physical channels, facilitating the control of the aircraft while also controlling the pan-tilt and other equipment.

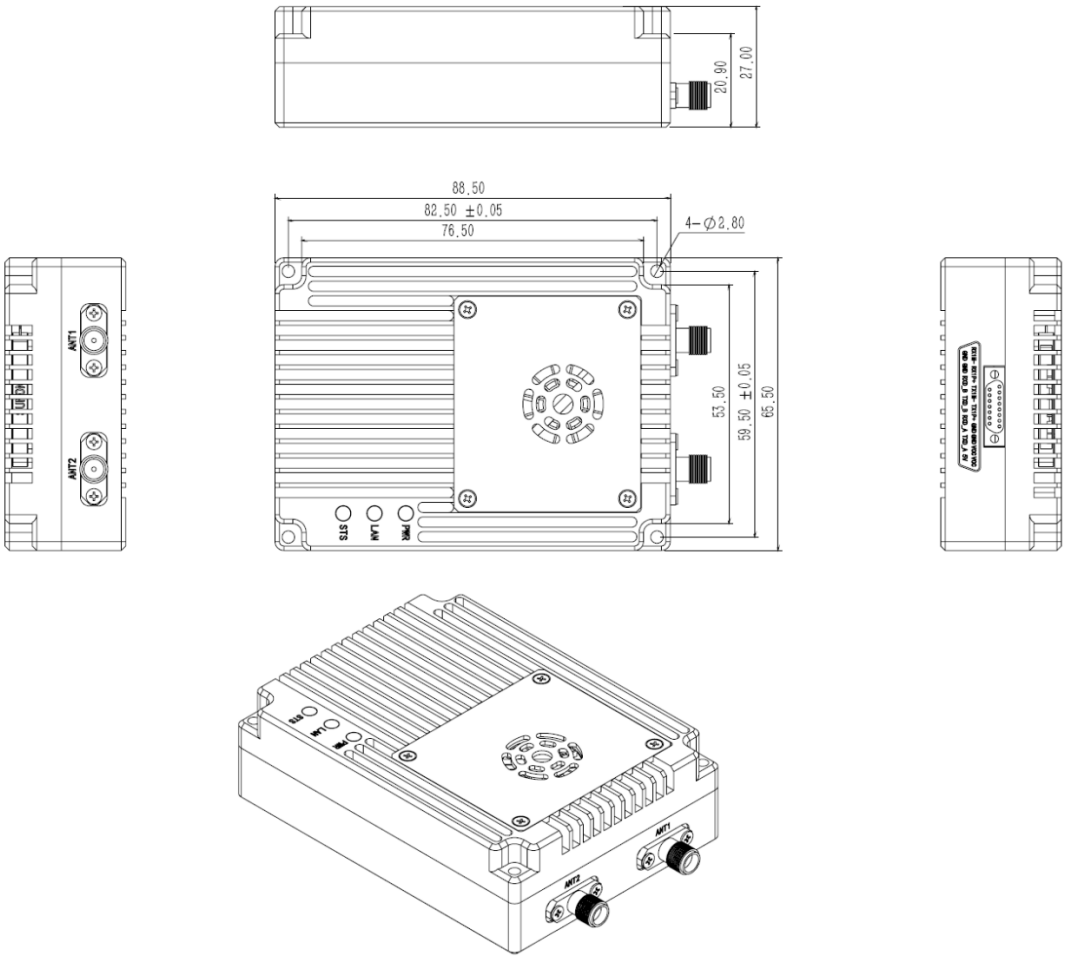
(7) All peripheral interfaces of H100 are equipped with dust-proof and splash-proof protection measures to ensure the stable and smooth operation of the equipment in harsh environments.

3. Product performance

H100 Overall performance	
Working frequency	1350-1470MHz(1.4G)
Transmission power	33dBm (2W)
Transmission distance	30KM+ (LOS)
Communication channel	SBUS (22 channels)
Control type	2 flight joysticks, 1 thumb joystick, 10 buttons, 6 three-position switches, 2 knobs
RC parameters of the remote control	
System configuration	Android 12; 8G+128G
Screen parameters	10.1 inches 1920*1200; 10-point capacitive touch ; 1000ccd/m²
WIFI Bluetooth	2.4Gwifi, 4.0 Bluetooth
External interface	USB*1,HDMI*1, 3.5Headphone jack*1,SIM card*1,type C*1, Ethernet*1
Battery capacity	12000mAh 12.6V
Charging time	4 hours (60W Charger)
Working hours	6 hours
Charging interface	Type-C PD3.0
Dimensions(L*W*H)	335*212*75mm
Weight	1.9kg
Work Temperature	-10℃~+60℃
Transmitter parameters	
Equipment model	S1400-P33-MINI
Transmission power	33dBm (2W)
Transmission delay	≤10ms
RF interface	SMA*2
Equipment interface	Network port: Ethernet *1
	Serial port 1: TTL*1/RS232*1
	Serial port 2: TTL*1/RS232*1/SBUS*2
Consumption	≤25W Air unit
Dimensions(L*W*H)	98.5*65.5*27mm
Weight	198g
Working voltage	DC 9~26V, Typical value : +12V@3A
Work Temperature	-40~+70℃

4. Product Dimensions and weight

4.1 P33-MINI Schematic diagram of dimensions(Air unit)



4.2 P33-MINI Dimensions and weight(Air unit)

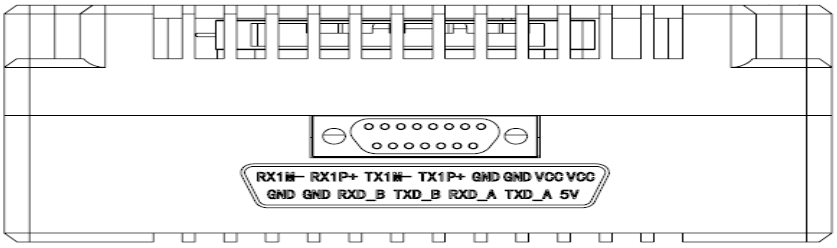
- Dimensions (L*W*H): 98.5mm x 65.5mm x 27mm （Including SMA 10mm）
- Weight: 198g

4.3 H100Remote control Dimensions and weight

- Dimensions (L*W*H): 335mm x 212mm x 75mm
- Weight: 1.9kg

5. Product interface definition

5.1 P33-MINI Interface schematic diagram(Air unit)



The interface of the S1400-P33-MINI device adopts J30J-15 PIN, with a total of 1 power supply, 1 network port and 2 serial ports. One of the serial ports is RS232*1/TTL*1, and the other one is TTL*1/RS232*1/SBUS*2. The levels of serial port 1 and Serial Port 2 are determined by the factory hardware. Customers are not allowed to modify through configuration.

5.2 P33-MINI Interface definition(Air unit)

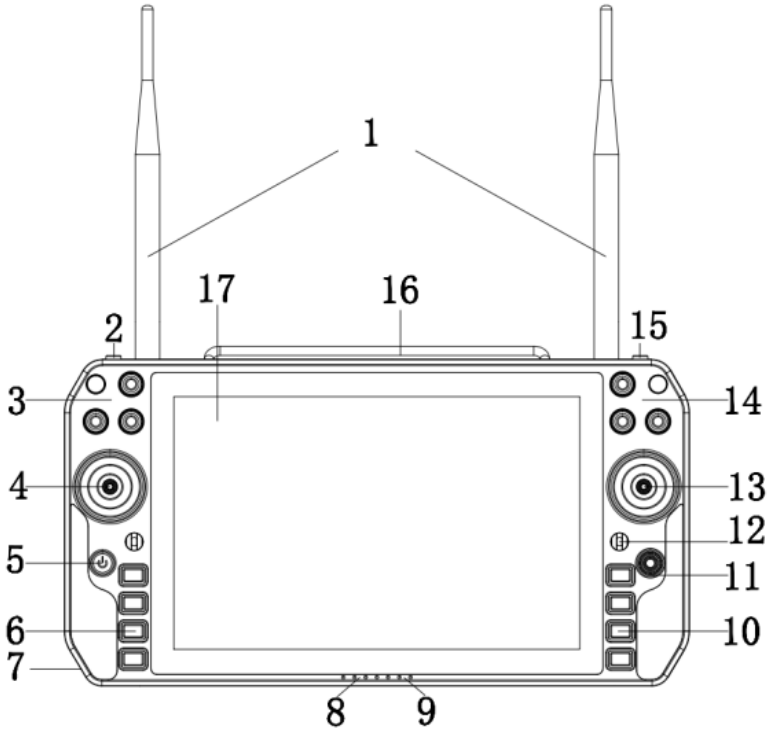
Linear order	Pin Name	Interface definition	Interface description	Signal direction
1	VCC	Power DC 9~26V	Power Positive	I
2	VCC		Power Positive	I
3	GND		Power Negative	I
4	GND		Power Negative	I
5	TX1P+	Ethernet *1	TX+	O
6	TX1M-		TX-	O
7	RX1P+		RX+	I
8	RX1M-		RX-	I
9	5V	5V output	SBUS 5V output	O
10	TXD_A	Serial port 1 RS232/TTL	Serial port 1 TX	O
11	RXD_A		Serial port 1 RX	I
12	SBUS /TXD_B	Serial port 2 SBUS/TTL/RS232 (note 3)	SBUS output /TTL output	O
13	SBUS /RXD-B		SBUS output /TTL input	O/I
14	GND		Serial port 2 ground	O
15	GND	Ground	Serial port 1 ground	O

Note 1: Signal direction I indicates radio input, and direction O indicates radio output

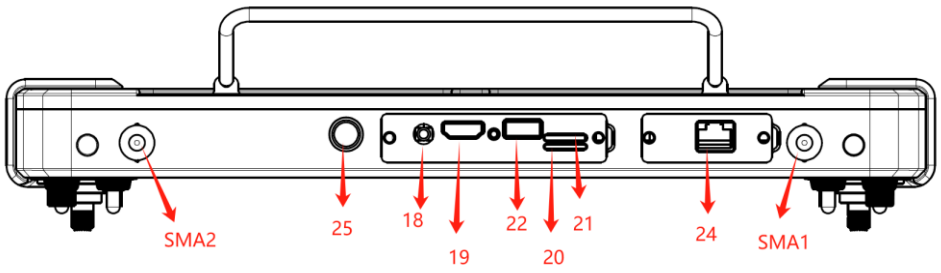
Note 2: Serial port 2 can only switch to SBUS mode when the hardware is TTL.

Note 3: If a 2-way SBUS is required, only the sky end SBUS needs to be configured as 12-pin -> 12-pin. 13pin->13pin

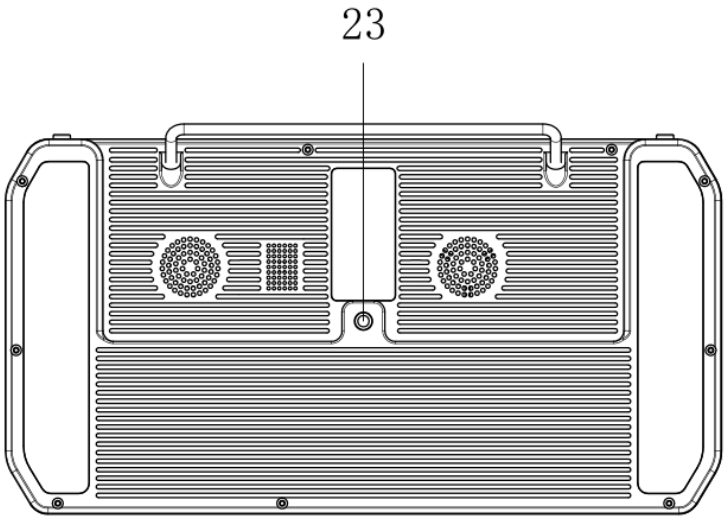
5.3 H100 Schematic diagram of the remote control interface



H100 Front view



H100 Side view



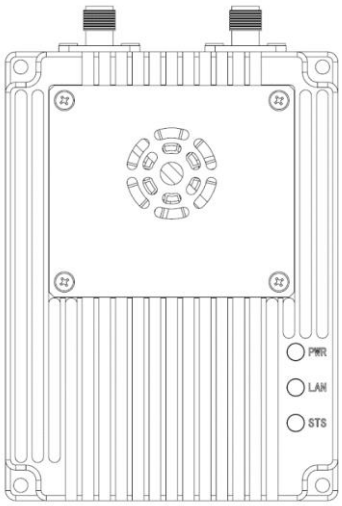
H100 Back view

5.4 H100 Definition of Remote-Control Interface

1	Antenna	13	Right flight joystick
2	S13 Button press	14	S4,S5,S6 Three-position switch and T4 knob
3	S1,S2,S3 Three-position switch and T3 knob	15	S14 Button press
4	Left flight joystick	16	Handle
5	Power on button	17	Screen
6	S7+,S7-,S9,S15(Touch the button lightly)	18	Headphone jack
7	Type C Charging port	19	HDMI output
8	The top four: Power level indicator light	20	SIM checkpoint
9	The last three: Link signal strength indicator light	21	TF checkpoint
10	S8+,S8-,S10,S16(Touch the button lightly)	22	USB
11	Thumb joystick	23	1/4 Screw hole（It is used to be fixed to a tripod）
12	Lifting ring hook	24	External network port RJ45
		25	**Data and Video link - Power switch**

6. The meaning of the product status light

6.1 Air unit status light



PWR（green）

When the device is powered on, the PWR remains on.

LAN（green）

When there is data transmission and reception at the network port, the network port light flashes.

STS（Four-color lamp）

Lights of different colors indicate the current signal quality.

When the sky terminal device is not synchronized with the H100 remote control, the power PWR light of the device remains on constantly and the STS blue light of the sky terminal device flashes. After synchronization, the STS light of the end device changes to a three-color light, and a green light is displayed when the signal quality is good (SNR>10dBm). A yellow light (6dBm<SNR<10dBm) indicates average communication quality. A red light (SNR<6dBm) indicates poor communication quality..

6.2 H100 Remote control status light

The first 4 can represent the battery level indicator light of the remote control, and the last 3 are not in use.

①Green light flashing: About 5% of battery power remains; Green light constantly on: about 25% of battery power remains

②Green light constantly on: The battery level is about 50% left

③Green light is constantly on: The battery level is about 75% remaining

④Green light is constantly on: The battery is remaining at 100%