External MIC optional user manual

As an optional accessory of HAMCUBE series host professional edition, the external MIC is used to collect the audio signal of radio speakers, and after amplification to an appropriate volume, it is sent to the audio decoding jack of professional edition for CW decoding by the decoding board.

Interface description:

Front

- Anyway, the volume knob rotates clockwise to increase the volume; Turn counterclockwise to reduce the volume.
- Anyway, MIC: Just under the volume knob is the MIC audio acquisition hole, and inside is the MIC device, so don't press it with sharp objects to avoid damage.
- Charging indicator: The small hole on the left side of the

volume knob shows charging, and the color is red when charging.

- Working indicator light: the small hole on the right side of the volume knob is the working indicator, and the color is blue when working.

Back

- Lent audio output: a standard 3.5mm stereo audio port connects to a decoder audio input via an audio cable; It can also be connected with earphones for remote audio monitoring; When the audio cable is inserted, the device will start up automatically. When the audio cable is pulled out, the device will shut down automatically. Please remove the audio cable immediately after use to shut down the device and save battery power.
- Charging port: Standard TYPE-c USB port for connecting the charger to charge the built-in lithium battery.

Equipment technical parameters:

- Jack audio interface: Standard 3.5mm stereo interface
- Charging interface: A Type-c interface
- Charging voltage: DC 5V

- Built-in battery: Lithium polymer battery, 150mAh
- Working hours: You work for up to 96 hours on a full charge
- Shell material: Aluminum alloy, non-waterproof structure
- Screen dimensions: 25x25x43 mm (excluding bump dimensions)
- Weight: 30g

Use method of external MIC option:

The external MIC option is connected with the decoding audio input port of the host through the audio cable. Check and confirm that the front panel work indicator light of the MIC option is on. Placing external MIC option near the radio loudspeaker, open the radio, confirm the CW radio frequency set to 600 hz in the side, adjust the volume of the external MIC option knob (clockwise, counterclockwise, the volume small volume), the host panel on the CW decoding indicator in the absence of the CW signal, just go out (increase will flash), At this time, the sensitivity of the audio level is the highest. When there is a CW signal, the CW decoding indicator light will flash clearly with the rhythm of the code signal. When the signal stops, the corresponding flashing will also stop. At this time the decoding accuracy will be relatively high. Of course, the recognition rate of

CW decoding is directly proportional to the quality and signal-to-noise ratio of the signal, the better the signal is, the clearer the decoding accuracy is, and the weaker the signal or the noise is, the decoding accuracy will decrease or even cannot be decoded.

In practical use, we can first find the frequency with a signal, and then offset 2kHz up or down to the frequency without a signal to correct the size of the input audio, and then return to the signal frequency for decoding after correction.

Appendix:

Decoder board setup and adjustment tutorial

https://www.bilibili.com/video/BV1Dg4y1z7j8/

Pocket Sprite series decoded video clips

https://www.bilibili.com/video/BV1ry4y1L77X?share_source=copy_web

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