



# ARCHITECT'S AND ENGINEER'S SPECIFICATION

**PRODUCTS SUPPORTED:**  
Dialog ® Aero

CLEARONE DOCUMENT DOC-0601-001  
(REVISION 1.0) January 2025

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## WIRELESS MICROPHONE SYSTEM

The system consists of a charging base, a handheld transmitter, a belt-pack transmitter and a receiver.

It adopts UHF digital transmission technology and QPSK modulation mode, with strong anti-interference ability, low bit error rate and stable transmission. The frequency response should be 20 Hz to 20 kHz, the audio resolution should be 24 bits, and the audio sampling rate can be adjusted to 24 kHz or 48 kHz (Note: adjusting the audio sampling rate will affect the frequency response parameters). The RF range should be 80 meters. The audio delay should be 4 ms from the analog input to the analog output of the microphone.

## WIRELESS TRANSMITTER

The system has different transmitter types: handheld, belt-pack. The handheld transmitter supports dynamic microphone heads. The belt-pack transmitter supports headset and lavalier microphones.

Both the handheld and belt-pack transmitters have LED status indicators and OLED displays. In addition, the handheld transmitter uses a single button and long press to turn on and off (which can also be used as a short press mute switch), while the belt-pack transmitter uses a slide switch to turn on and off, and a separate mute button. Both the handheld and belt-pack transmitters support the replacement of 3.7 V / 900 mA-14.5 mm \* 50.5 mm lithium-ion batteries with a running time of 15 hours. The transmitters should be charged through the charging base or the USB-C port.

## RECEIVER

The receiver has a frequency range of 500-608 MHz. It uses dual antennas to receive wireless signals. The network interface can be used with software to uniformly control the device, as well as USB-C port. The receiver has multiple buttons, supporting power on and off, volume adjustment, one-button frequency scanning, fixed frequency adjustment, power adjustment, audio encryption, intelligent mute and other functions.

## CHARGING BASE

The charging base can charge handheld transmitters, belt-pack transmitters or batteries. It features 2 transmitter charging bays and 4 battery charging bays, capable of charging handheld mics/belt-pack devices/lithium batteries/NiMH batteries and allows a maximum of 4 bases to be cascaded. The base supports an OLED to display current charging information and is compatible with Ethernet connection for smart monitoring and management. The base is powered by USB-C and has 6 LED status indicators.

## WIRELESS SOFTWARE

Provides the ability to link the devices to the management software through Ethernet for monitoring, controlling, and carrying out firmware updates.

## MANAGEMENT REQUIREMENTS

Low-power radio transmission equipment shall comply with the following regulations:

- Adhere to the specific terms and usage scenarios of the Catalogue and Technical Requirements for Low-power Short-range Radio Transmitter Equipment, and the methods of control, adjustment and switching.
- Do not change the usage scenario, expand the transmission frequency range, or increase the transmission power (including installing an additional radio frequency (RF) power amplifier, and not using external antennas or substituting other transmitting antennas without permission);

- Must not cause harmful interference to other legal radio stations, nor claim protection from harmful interference.
- Should withstand interference from industrial, scientific and medical (ISM) applications that radiate radio frequency energy or interference from other legitimate radio stations/transmitters.
- If harmful interference is caused to other legal radio stations/transmitters, the equipment shall be stopped immediately, and measures shall be taken to eliminate the interference before resuming use.
- When using low-power equipment in an aircraft or in electromagnetic environment protection areas such as airports, radio astronomy observatories, meteorological radar stations, satellite earth stations (including telemetry and control, ranging, receiving, and navigation stations) designated by laws, regulations, and standards, compliance with electromagnetic environment protection and relevant industry regulatory provisions is mandatory.
- It is prohibited to use any model remote controllers within a radius of 5,000 meters centered at the airport runway midpoint.
- Environmental conditions of temperature and voltage during the use of low-power devices. Compliance Directive.

## SALES AND INQUIRIES

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