

# ARCHITECT'S AND ENGINEER'S SPECIFICATION

**PRODUCTS SUPPORTED:**  
ClearOne Dialog® UVHF

CLEARONE DOCUMENT DOC-0582-001  
(REVISION 1.0) September 2023

## TABLE OF CONTENTS

WIRELESS MICROPHONE SYSTEM .....	2
ACCESS POINT .....	2
CHARGER DOCK .....	2
WIRELESS TRANSMITTERS .....	2
DANTE INTERFACE .....	2
WIRELESS SOFTWARE .....	2
EXPOSURE AND COMPLIANCE .....	3
WARRANTY .....	3

## WIRELESS MICROPHONE SYSTEM

The system shall consist of an Access Point, a Charger Dock, 4 different microphone transmitters, and an option Dante Interface. Secure RF connections are created using full-time standards-based FIPS 197 AES-256 encryptions. The system shall have a frequency response of 20 Hz to 20 kHz, with an audio resolution of 24 bits and an audio sampling rate of 48 kHz. The RF range shall be 60 meters. The audio latency shall be 9 mS from analog input of the microphone to the analog output of the Dante Interface.

### ACCESS POINT

The Access Point (AP) shall have 8 wireless radios that can tune to up to 350 available microphone channels in a 160 MHz RF tuning range. The AP shall support PoE and Dante. The AP shall use dual antennas providing spatial and polarisation diversity to help maintain high audio quality in harsh environments. A wired ethernet connection adds the ability to connect management software to the AP via a web browser to monitor and control the system. The AP shall have RGB status LED's, a reset button, a PoE selector switch, and a 2 port ethernet switch with dual RJ-45 jacks. The AP shall be ceiling, wall or table mountable.

### CHARGER DOCK

The Charger Dock (CD) shall charge and store 8 microphone transmitters as well as 8 spare battery cells. The CD shall power from PoE and communicate with the AP over ethernet. The CD shall have RGB status LEDs, a pairing button and a 2 port ethernet switch with dual RJ-45 connectors. The CD shall have a magnetic feature to help secure the microphone transmitters in the dock. The CD shall communicate with the AP to monitor, control and perform firmware updates.

### WIRELESS TRANSMITTERS

The system shall have different Transmitter (Tx) types – Tabletop Boundary, Tabletop Podium, Handheld and Bodypack. The Boundary transmitter shall have built in Omni and Cardioid pick up patterns. The Podium shall support 6-, 12- and 18-inch Gooseneck Cardioid mics. The Boundary and Podium shall have a mute button with PTT, PTM and a Toggle feature. The Handheld transmitter shall support both ClearOne Dynamic and Electret as well as standard 3rd party microphone heads. The Bodypack transmitter shall support a standard TA4 audio connector that will support both ClearOne, and 3rd party lavalier, lanyard and headset microphones.

All Tx types shall have RGB status LEDs, a color LCD display, and a power On/Off slide switch that also functions as a mute switch. The Tx's shall support the same field replaceable 16650 3.7V 2100 mAh Lithium-Ion battery with a 12 hr runtime @ 1 mW RF power. The Tx's shall charge in the Charger Dock or charge from a USB C port. The Tx's shall communicate with the Charger Dock to pair with the AP radios as well as perform firmware updates. All Tx's shall have an Audio Preamp with an adjustable gain of -20, -10, 0 to +31 dB (1 dB steps) and a Low-Cut filter (75 Hz) to minimize wind noise.

### DANTE INTERFACE

An optional Dante Interface (DI) provides 8 channel Euroblock balanced analog outputs, including a ¼ TRS mixed output, USB audio output, and 8 GPIOs. The DI shall be powered by PoE and communicate with the AP over ethernet and accept firmware updates. The DI shall have RGB status LEDs and a 2 port ethernet switch with dual RJ-45 connectors. The DI shall be rack, wall or table mountable.

### WIRELESS SOFTWARE

An ethernet connection adds the ability to connect management software to the access point via a web browser to monitor, control and to perform firmware updates.

## EXPOSURE AND COMPLIANCE

### RF Exposure Information

The transmitters have been tested and have been shown to be compliant for localized specific absorption rate (SAR) for uncontrolled environment/general exposure limits specified in ANSI/IEEE Std. C95.1-1999 and C95.1-2005 and have been tested in accordance with the measurement procedures specified in IEEE 1528-2003 and IEC 62209-2 and IEC 62630.

### RF Compliance Information

The transmitters have been tested and have been shown to meet FCC, IC and CE spectral bandwidth requirements at 1 mW and 10 mW output power.

This equipment may be capable of operating at some RF power levels not authorized in your region. Please contact your national authority to obtain information on RF power levels for wireless microphone products in your region.

This product meets the Essential Requirements of all relevant European directives and is eligible for CE marking.

## WARRANTY

Warranty for the system shall be 3 years.

---

## SALES AND INQUIRIES

### Headquarters

5225 Wiley Post Way Suite 500  
Salt Lake City, UT 84116

### US, Canada & International

Main: +1.801.975.7200

### Sales

Tel: +1.801.975.7200  
[sales@clearone.com](mailto:sales@clearone.com)

### Tech Support

Tel: +1.801.974.3760  
[audiotechsupport@clearone.com](mailto:audiotechsupport@clearone.com)

Product names and logos may be registered trademarks of their respective owners who do not necessarily endorse ClearOne or ClearOne's products. All rights reserved. Information in this document subject to change without notice.