



# SYSTEM DESIGN GUIDE

## CONTACTLESS AV FOR CLASSROOMS

Tesira® and Modena™

With the need to comply with social distancing guidelines and other public gathering restrictions, educators are faced with the challenge of creating learning environments that engage students while also keeping them physically separated for their own well-being. Many institutions are taking a multi-pronged approach to solving this challenge, continuing to deliver classes in-person whenever feasible and safe to do so, but also implementing additional AV technology in the classroom to support remote learning.

The audiovisual technology needed to minimize or eliminate contact between students in the classroom while simultaneously supporting remote participants can be difficult and time-consuming to identify. The Biamp Classroom creates an extraordinary audiovisual experience for the students and instructors in-room or remote, ensuring all students have a voice no matter where they are located.

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In this scenario, Modena Hub plays a crucial role in the contactless aspect of the classroom. The wireless room connection and screen sharing provided by Modena Hub allow instructors and students to easily connect to a remote session from their personal devices without touching shared cabling or equipment. By giving the instructor the freedom to use their laptop wirelessly, it allows them to focus on the topic being discussed, not on the room technology. Instructors can share content not only to a presentation screen, but to personal devices including smartphones, tablets, and laptops in the room or remotely connected. Conversely, students can share content from their personal devices with the instructor and other students as needed, increasing efficiency.

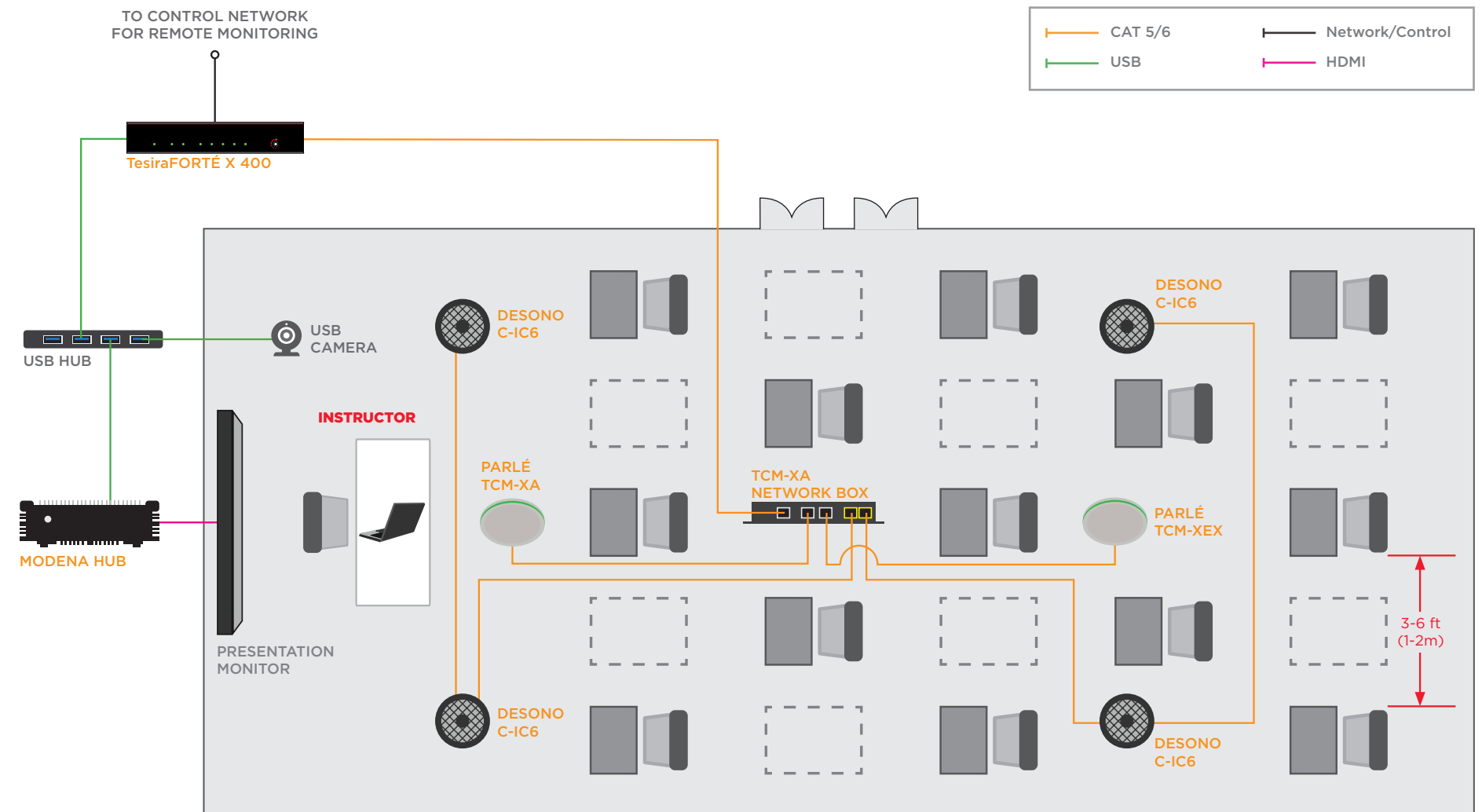
Modena Hub works with many UC clients like Google Meet, Microsoft Teams, and Zoom, allowing schools to use their preferred solution while avoiding the costs and the constraints of having dedicated codecs or room systems in the classroom. TesiraFORTÉ provides the audio processing for the entire classroom and facilitates connectivity with UC clients for remote students. Our dynamic Beamtracking™ ceiling microphones assure all students are heard no matter how seating is arranged today or re-configured in the future. An added benefit of contactless Biamp Classrooms is eliminating the distraction of having to continuously disinfect AV equipment, computers, cables, or touch panels.

## BENEFITS FOR INSTALLERS

- Single category cable solutions allow easy installation in existing classrooms
- Wireless technology eliminates on-table cabling
- Dynamic Beamtracking microphones require no time to aim or tune
- Biamp Launch™ drastically reduces deployment time by eliminating programming and automating commissioning and system tuning

## BENEFITS FOR TECH MANAGERS

- Classroom AV can be easily monitored and managed remotely with Biamp SageVue™
- SageVue can send automatic alerts for any system issues and can secure access to the AV system to prevent unauthorized changes
- Fewer on-site support calls are required
- Only the control port on TesiraFORTÉ needs access to the main AV network for remote monitoring



# EQUIPMENT LIST

Product	Function
TesiraFORTÉ X 400	Provides dedicated DSP to the classroom and acts as a single point for media connections and PoE+ power to all devices. Supports the ability to integrate with UC platforms for remote participants.
Parlé TCM-XA	Actively tracks and intelligently mixes conversations from around the table. The built-in 2-channel PoE+ amplifier provides amplification to the ceiling loudspeakers.
Parlé TCM-XEX	Expansion microphone daisy-chained to a TCM-X or TCM-XA.
Modena Hub	Allows students to connect wirelessly to AV equipment and USB accessories.
Desono C-IC6	Provides sound reinforcement within the classroom.
USB Hub	Provides additional USB connections for peripherals.
USB Camera	Allows video streaming of the instructor or classroom interior to remote students.
Presentation Monitor	Allows all students to view a presentation or other valuable data being shared during class.

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