

Medium Class Room

Design Guide

DOC-0552-001 - V 2.0 - May 2024

Room Application

Audio/Video Conferencing, Presentation, Native Camera Tracking.

Included Interfaces

BYOD, VoIP, Telco.

Primary Equipment

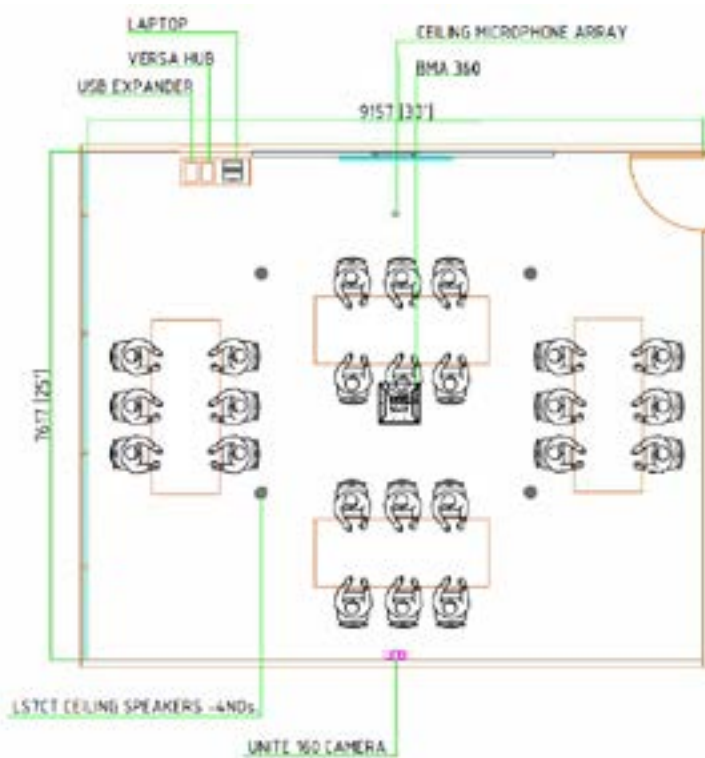
- BMA 360
- Ceiling Microphone Array
- Versa USB Hub
- Converge Pro 2 128VT
- Unite 160 PTZ Camera

Software/Firmware revisions utilized

- Console Ai Version: v7.7.0.14
- DSP Version: 8.7.14.13
- BMA 360 Version: 1.0.8.4



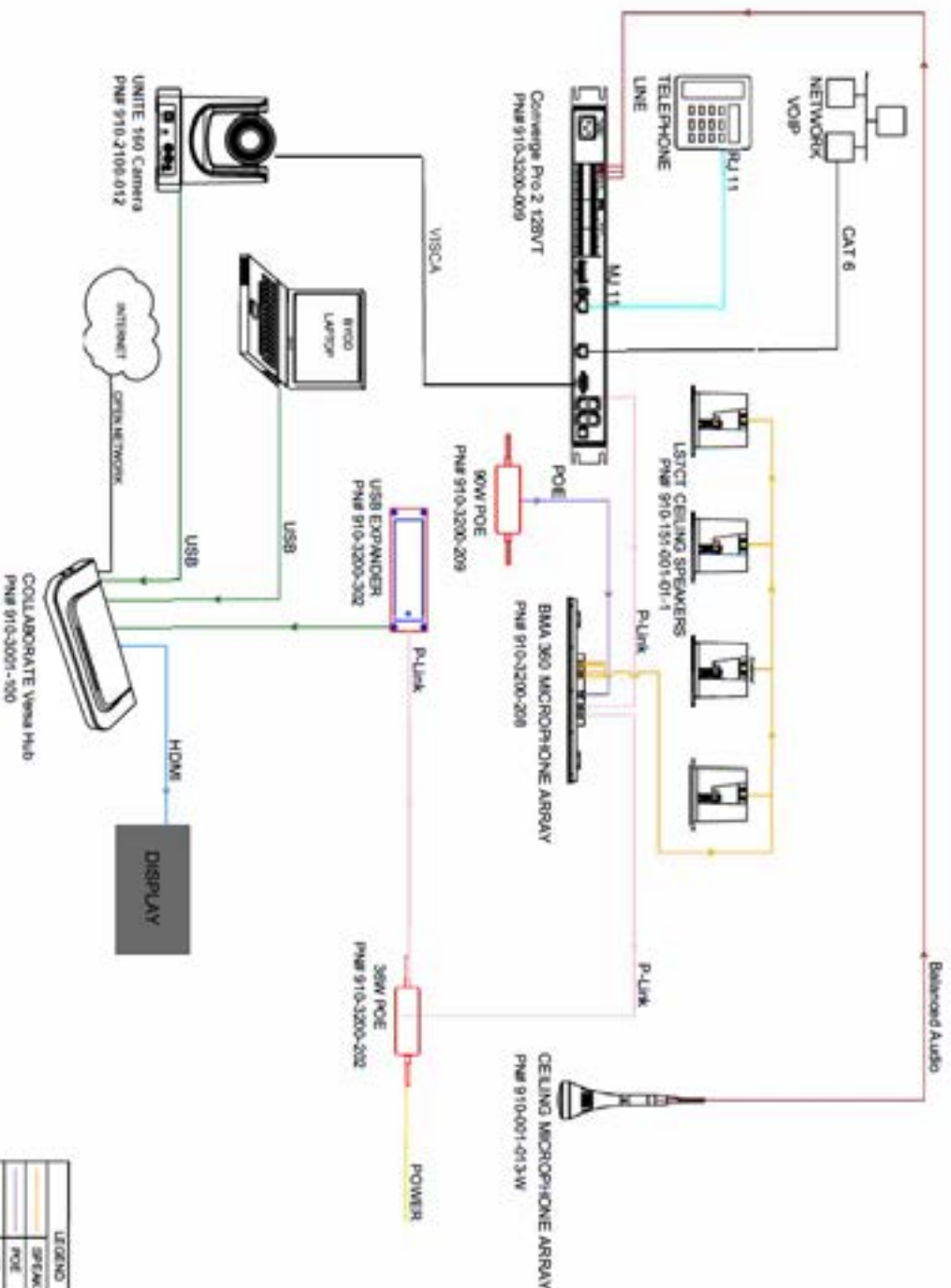
Room Illustrations



Room Description

Stay connected with your students and communicate clearly. This medium classroom design provides an excellent platform for remote attendance as well as recording of Classroom sessions.

Wiring Diagram



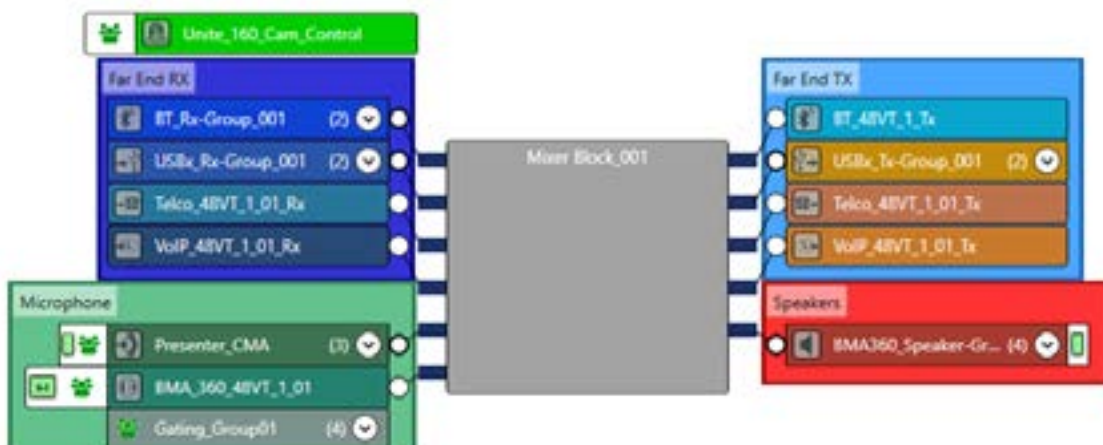
NOTE: ANY INDIVIDUAL P-LINK MUST NOT EXCEED 200 FEET / 61 METER IN LENGTH

LEGEND	
	SPEAKER (S AND W/A)
	POE
	USB
	HDMI
	P-Link (CAT 6)
	NETWORK (CAT 6)
	BALANCED AUDIO

Equipment list:

Qty	Part Number	Product Name	Description
1	910-3200-006	Converge Pro 2 128VT	DSP Mixer with 12 Mic/Line AEC Inputs, 8 Mic/Line Outputs, USB Audio, VoIP, Telephone Interface
1	910-3200-209	90W PoE++ power supply kit for BMA	Includes 1 x 90 Watt PoE++ Injector, 2 x 25 ft CAT6 cables
1	910-3200-202	36W PoE+ power supply kit for BMA	Includes 1 x 36 Watt PoE+ Injector, 2 x 25 ft CAT6 cables
1	910-3200-208	BMA 360 24 Inch	BMA with 4 x 15 Watt Power Amplifiers. PoE Injector and CAT6 cables not included. 910-3200-208-I 600 mm model also available.
1	910-3200-302	USB Expander for CONVERGE Pro 2	Includes 6 ft USB cable
2	910-151-001-01-1	Ceiling Speakers	Includes 2 x LS7CT ceiling speakers with 8 ohm and 70V/100V transformer taps and ceiling tile bridges.
1	910-3001-100	COLLABORATE Versa Hub	Hub that connects USB camera, USB audio, room displays and laptop
1	910-2100-012	UNITE 160 4K Camera	4K PTZ camera with 12x optical Zoom, 2160P30 UHD, USB, AI smart face tracking, and auto framing.
1	910-001-013-w	Ceiling Microphone Array	Provides rich sound with three wide-range mics mounted together into a single-unit array, maintaining 360-degree coverage from 15 to up to 20 ft.

FlowView™ Diagram



Included Macros

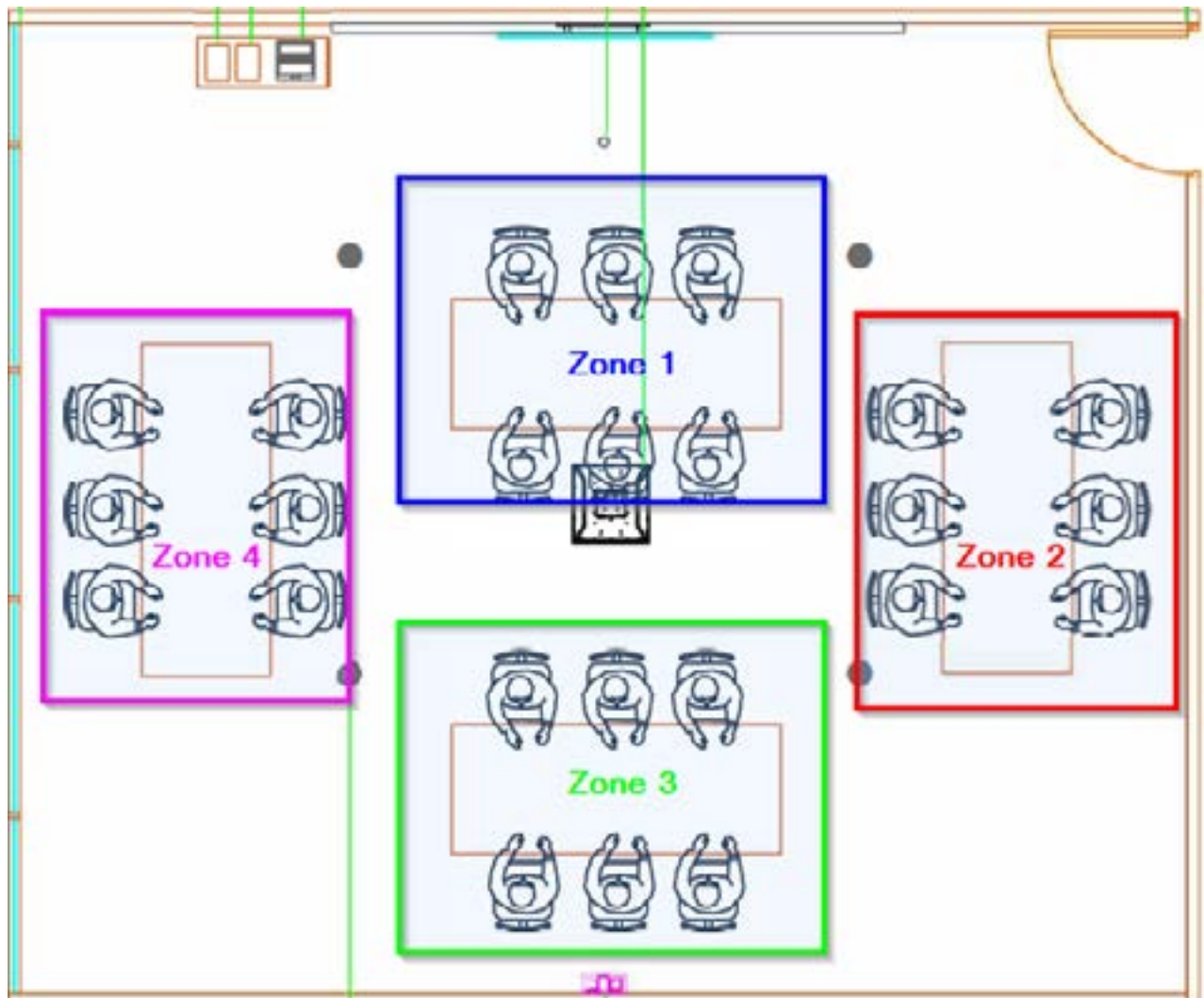
- Microphone_Mute : Mutes both room BMA 360 Microphones.
- Microphone_Unmute : Unmutes both room BMA 360 Microphones.
- Room_SPKR_Mute : Mutes all room speaker channels.
- Room_SPKR_Unmute : Unmutes all room speaker channels.
- Room_VOL_DN : Decreases the room speaker volume by 3 dB per execution.
- Room_VOL_UP : Increases the room speaker volume by 3 dB per execution.
- Presenter_Mode: Enables the Presenters CMA microphone and mutes the Classroom BMA 360.
- QA_Mode: Enables both the Presenter CMA and the Classroom BMA 360.

* Macros can be executed via Telnet or serial communications.
Refer to the Converge Pro 2 Serial Command Reference Manual for details.

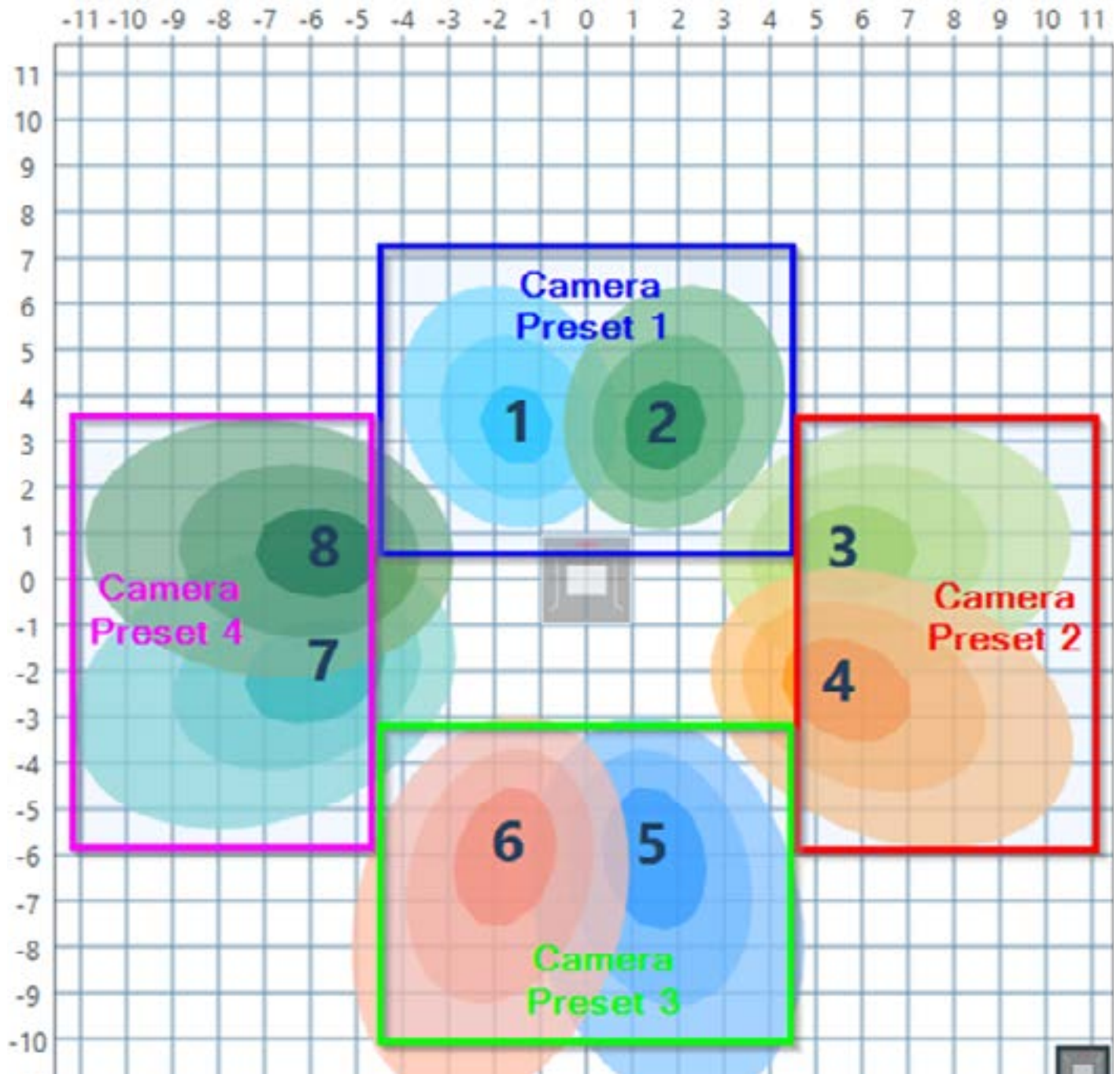
Camera Tracking

Converge Pro 2 audio processors support both IP and VISCA direct camera control to focus on speaking room participants. This design includes a preliminary configuration for tracking.

Camera coverage zones-



Camera Presets Called for activated beams-



Active Beam assignments to Camera Presets-

Camera Preset Matrix

	Unite_160	Preset_1	Preset_2	Preset_3	Preset_4	Preset_5	Preset_6	Preset_7	Preset_8	Preset_9	Preset_10	Preset_11	Preset_12	Preset_13
BMA_360_48...														
Beam # 1	X													
Beam # 2	X													
Beam # 3			X											
Beam # 4			X											
Beam # 5				X										
Beam # 6				X										
Beam # 7					X									
Beam # 8					X									
Beam # 9														
Beam # 10														
Beam # 11														
Beam # 12														

[Download the Medium Class Room files:](#)

- Example Console Configuration File | [Download](#)
- DWG Wiring Diagram | [Download](#)
- Stardraw Wiring Diagram | [Download](#)

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