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Video Conferencing

A great video conferencing system consists of 3 parts: a camera, a microphone and a display. Let us at Video Reality transform your meeting spaces.

For your smaller spaces, an All-In-One Video Conferencing Sound Bar with Camera will be your best option.



**AMX Acendo
Vibe**



**Crestron
Smart
Soundbar**

Affordable, Easy to Use, Incredibly Clear Picture and Sound.

Hassle free meetings, ZOOM certified.

For your larger spaces, the best option is a more integrated solution with a PTZ camera, ceiling mic array and a large format display.



With Sennheiser's TeamConnect 2 ceiling microphone, no word is lost. This smart microphone tracks users and adapts to any environment. With Barco's ClickShare Conference, the in room devices can be shared wirelessly so that anyone can use the in room camera, microphone, and speakers.

VC-B10U Ultra-HD ePTZ USB

Lumens®
Your Success...Our Passion!

The Lumens™ VC-B10U is a high-definition ePTZ camera specifically designed for small meetings, classrooms and distance learning. It supports USB 3.0 and is plug-and-play with just one USB cable. Thanks to its built-in TV mount it's easily installed on the TV or on the screen, and equipped with a 120° wide viewing angle and can even enlarge to 3x magnification, attendees appear clear. In addition, it has a built-in microphone, best suited for distance learning or videoconferencing.

Key Features

- Supports USB 3.0 / 2.0 plug & play
- 4K image sensor with 12 Megapixel
- Output resolution up to 3264 x 2448
- Panoramic 120° viewing angle
- Maximum 3x sensor zoom, and 8x digital zoom
- ePTZ, Remote control
- Supports 64 preset positions
- Built-in microphone with beam forming and noise suppression technology



Color Options:
Black / White

Compatible with all popular applications and cloud systems:



More Details



USB 3.0 Plug & Play

The VC-B10U uses standard UVC drivers. There is no need to install special USB drivers. USB 3.0 is 10 times faster than the USB 2.0 standard and it features low latency and non-compress output.



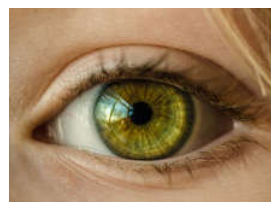
Excellent Image Quality

The VC-B10U has a professional 12 megapixel image sensor that features low noise, high resolution, and vivid color reproduction and presents an excellent image quality even under insufficient light conditions.



Panoramic Viewing Angle

The VC-B10U has a panoramic 120° viewing angle that helps users achieve a wider viewing area.



3x Sensor Zoom

The 3x sensor zoom can magnify viewing for more details, shapes, color and it's still clear without any distortion.



Easy control

Easy control like Pan, Tilt, Zoom and settings by IR remote controller and Lumens USB PTZ camera controller software. Supports Windows, MAC OS and Android.



64 Preset Positions

The VC-B10U has 64 preset settings for pan, tilt, zoom, focus, and white balance modes for more effective and efficient video recording.



Adaptive Microphone Design

The VC-B10U with two built-in microphones is a best fit for distance learning or videoconferencing. Speech enhancement can be utilized with Microphone Beamforming and noise suppression technology.



Easy Integration on the Screen

The USB 3.0 cable has a 90 degree design allowing the VC-B10U to install effortlessly for any display size.

Product Specifications

Sensor	1/2.3" 12 MP CMOS	ePTZ	Support
Video Output	3264x2448 10 fps 3264x1836 10 fps 1920x1080 30 fps 1280x720 60 / 30 fps 960x540 30 fps 640x480 30 fps 640x360 30 fps	Preset Positions	IR: 6 Sets USB: 64 sets
Aperture	F1.8	Video Format	YUV / MJPEG
View Angle	120° (Diagonal), 110° (Horizontal)	Video Output (HD) Interface	USB 3.0 (USB 2.0 Compatible)
Minimum Object Distance	50 cm	Microphone	Build in 2 microphones
Remote Control	Yes	White Balance	Manual / Auto
Zoom (Lossless)	2x for 1080p (1920x1080) 3x for 720p (1280x720) 4.8x (640x480)	Exposure Control	Auto
Digital Zoom	8x	Brightness Control	Yes
Camera Control Interface	IR remote control / USB	Back Light Comp	On / Off
Driver	UVC / UAC	Focus System	Fixed Focus
		2D Noise Reduction	Yes
		TV Mount	Built-in
		Weight	Main Unit : 120g Main Unit & Shelf : 180g

I/O CONNECTIONS

Front



Side



Rear



Lumens[®]
Your Success...Our Passion!

www.MyLumens.com

Lumens Integration, Inc.
4116 Clipper Court
Fremont, CA, 94538
Phone : 888.542.3235
Fax : 510.252.1389

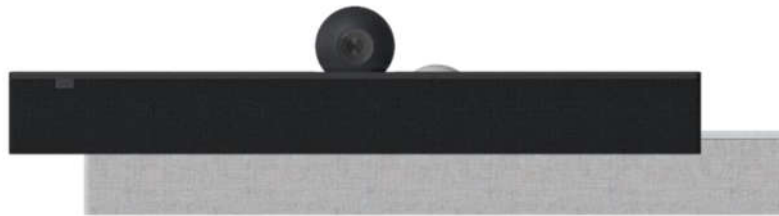
Lumens Europe
De Nayerstraat 17 9470
Denderleeuw Belgium
Phone : +32 473 58 38 95
Fax : +32 (0) 2 452 76 00



AMX Acendo Vibe™ Conferencing Sound Bar with Camera

ACV-5100GR, Grey (FG4151-00GR)

ACV-5100BL, Black (FG4151-00BL)



Overview

The Acendo Vibe 5100 is an expertly designed web conferencing sound bar with integrated camera. Featuring a wide-angle, 110° field-of-view camera; sound by JBL; far-field microphone array; echo cancellation; ambient noise reduction; Bluetooth® and USB connectivity; and a look that enhances modern workspace architecture, Acendo Vibe supports the high standards of today's workforce.

See and hear everyone in the room, thanks to Acendo Vibe's wide-angle camera, integrated JBL speakers, far-field microphones, and digital signal processor (DSP) algorithms. Echo cancellation and ambient noise reduction eliminate distracting background noises.

HDMI, USB and Bluetooth® connectivity support Bring Your Own Device (BYOD) environments as well as integration with Acendo Core for an enhanced and intuitive room collaboration experience. CEC display control turns the display on or off in response to triggers. Acendo Vibe's dedicated audio inputs and outputs can be used to integrate additional technology such as hearing-enhanced systems.

Common Applications

With the trend toward open working environments, small meeting spaces are becoming more and more important. It is critical these spaces be well suited for quick, intuitive collaboration, so as not to interrupt daily work flows. BYOD meeting spaces often lack technology, which translates to a group huddling around a laptop and trying to hear, and speak, using the laptop audio and video (which is really meant for an individual rather than a group). With a very reasonable entry price, and low total cost of ownership, Acendo Vibe is ideal for any collaboration space, and can even be incorporated into small spaces without plans for technology.

Features

- **Sound by JBL** – Hear everything in the meeting with speakers, microphones, and DSP algorithms from JBL.
- **Wide-Angle Camera (110° FoV)** – The wide-angle camera means that everyone in the room can be seen, including those people sitting close to the display. This makes Acendo Vibe perfect for small rooms where the table is near the display.
- **Far-Field Microphone Array** – Ensure everyone is heard.
- **Echo Cancellation** – Delivers crisp audio eliminating the potential for echo.
- **Ambient Noise Reduction** – Eliminates distracting background sounds like HVAC.
- **Elegant Design** – Modern office environments are designed to attract and retain the most talented employees through the use of elegant interior design and the use of tactile materials, such as fabrics. Acendo Vibe is built using high-quality materials and is available in colors which complement interior design.
- **CEC Display Control** – Acendo Vibe will turn the display on and off in response to triggers, making it even easier for users to get started with their meeting. For example, by plugging a laptop into Acendo Vibe, the display will turn on and show the laptop content. Because this is all done with CEC, there are no additional cables or programming required.
- **USB and Bluetooth Connectivity** – Use Acendo Vibe in BYOD applications with a user's laptop or mobile phone, or use it with Acendo Core to create a complete, highly optimized meeting solution.
- **Remote Control** – Control volume, mute, source and call control—all from the table.
- **Integrated Mounting Bracket** – The integrated wall mount facilitates installation by a single person. This mount allows customers to connect and route all the cabling with Acendo Vibe on the wall and then simply rotate Acendo Vibe into position.

Specifications

GENERAL	
Dimensions	5 ¼" x 23 ½" x 4 1/8" (132 mm x 590 mm x 105 mm) Depth without wall mount spacers: 3 15/16" (100 mm) Height without camera: 3" (76 mm)
Weight	6.45 lbs. (2.93 kg.)
Mounting Options	Built-in wall mount with hinge that allows installers to connect and manage cables when Acendo Vibe is hanging on the wall. Installed rubber feet for placement on a credenza or tabletop. Rubber feet can be removed for installation on a wall; however, it is important to note that for optimum sound quality, rubber feet must be present when resting on a table.

CAMERA	
Resolution	Up to 1920x1080p 30 fps
Camera Sensor	1/2.7" CMOS sensor
Field of View (Diagonal)	110° wide-angle
Focus	15 cm to infinity
Camera Rotation	can be rotated horizontally 175° (± 5°) in either direction
Camera Tilt	down 5° / up 15°
Encoding Format	H.264
Zoom	Fixed

CONNECTORS	
Analog Stereo Input	1/8" mini-stereo Jack
Analog Stereo Output	1/8" mini-stereo Jack
Optical Stereo Input	TOSLINK
Power	IEC C8 inlet

RS-232	3-pin Phoenix connector (mating connector not included)
USB	Type-B receptacle (USB 2.0)
HDMI Input	Type-A receptacle
HDMI Output	Type-A receptacle
Occupancy Sensor Input	3-pin Phoenix connector (mating connector not included)

USB	
USB 2.0	Camera, microphones, and speakers connect to PCs using standard Plug and Play (PnP) UAC/UVC drivers USB connection used to configure Acendo Vibe using PC/Mac application.

HDMI	
Supported	HDCP 1.4
Resolution Support	Up to 4K60 CEC display control on output
Audio Support	Support for uncompressed stereo PCM audio. No support for Multichannel Surround Sound.
Display Control	CEC for display control on HDMI output

BLUETOOTH® 4.0	
Supported Profiles	Hands-free profile Advanced audio distribution profile
Radio Frequency (RF) Range	2400 MHz – 2483.5 MHz
RF Output Power	< 10 MW

AUDIO	
Supported	Stereo 10W with channel amplifier Dual, far-field microphone array Built-in Acoustic Echo Cancellation (AEC)

REMOTE CONTROL	
Functions	Connects using Bluetooth®. Functions: <ul style="list-style-type: none"> • Bluetooth® pairing for mobile devices • Disconnect (hang up) • Microphone mute • Source select • Volume up/down • Volume mute

REGULATORY COMPLIANCE	
Regulatory Compliance	FCC 47 CFR part 15, subpart C / subpart B (emissions) CE EN 55024 CE EN 60950-1 IEC 60950-1 EN 300 440

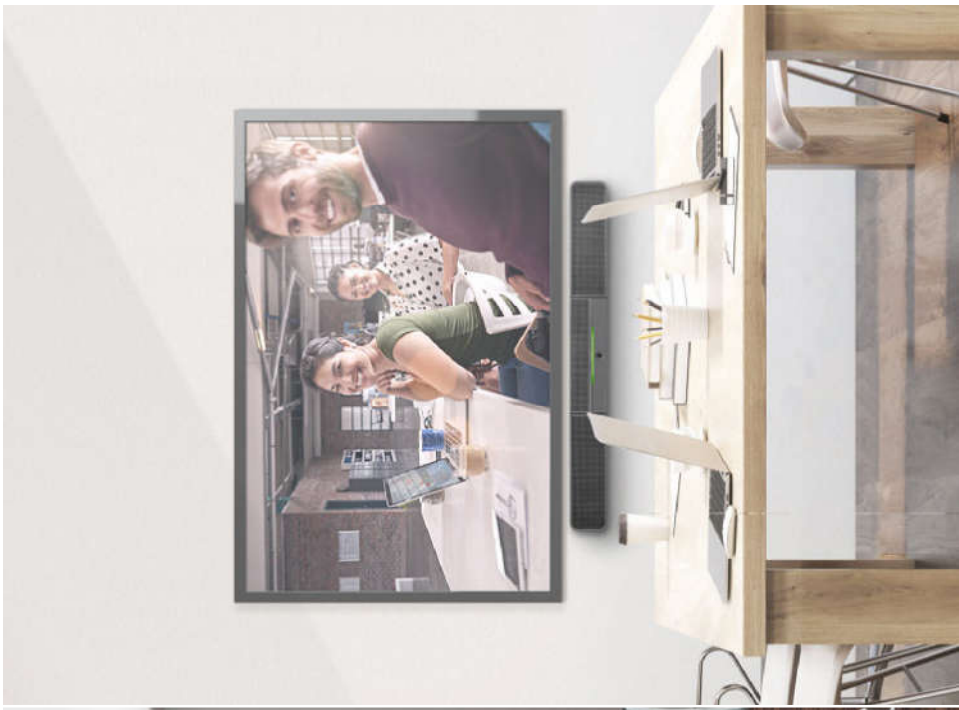
ENVIRONMENTAL	
Temperature (Operating)	32° F to 122° F (0° C to 50° C)
Temperature (Storage)	-4° F to 158° F (-20° C to 70° C)
Humidity (Operating)	5% to 85% RH non-condensing

ACTIVE POWER REQUIREMENTS	
Voltage, AC (Typical)	110-240 VAC, 47-63 Hz
Power Consumption (Max)	1.3A max
FG numbers are regionalized to include the appropriate power cord based on region	<p><u>Black Acendo Vibe 5100 Series</u></p> <ul style="list-style-type: none"> • FG4151-00BL-UA, ACV-5100BL-UA: UA Version - Type B and I power cords for USA, Canada, Japan, Philippines, Thailand, Australia, and New Zealand • FG4151-00BL-EK, ACV-5100BL-EK: EK Version - Type E/F and type G power cords for EU countries, Indonesia, Singapore, Vietnam, Malaysia, Thailand, Cambodia, and Mongolia • FG4151-00BL-KR, ACV-5100BL-KR: KR Version - For Korea • FG4151-00BL-CN, ACV-5100BL-CN: CN Version – For China <p><u>Gray Acendo Vibe 5100 Series</u></p> <ul style="list-style-type: none"> • FG4151-00GR-UA, ACV-5100GR-UA: UA Version - Type B and I power cords for USA, Canada, Japan, Philippines, Thailand, Australia, and New Zealand • FG4151-00GR-EK, ACV-5100GR-EK: EK Version - Type E/F and type G power cords for EU countries, Indonesia, Singapore, Vietnam, Malaysia, Thailand, Cambodia, and Mongolia • FG4151-00GR-KR, ACV-5100GR-KR: KR Version - For Korea • FG4151-00GR-CN, ACV-5100GR-CN: CN Version – For China

RECOMMENDED ACCESSORIES	
Items	<ul style="list-style-type: none"> • ACR-5100, Acendo Core Meeting Collaboration System (FG4051-00) • CBL-USB-FL2-16, USB 2.0 16ft Extension Cable (FG10-2220-16) • CBL-USB-FL2-33, USB 2.0 33ft Extension Cable (FG10-2220-33)

About AMX by HARMAN

Founded in 1982 and acquired by HARMAN in 2014, AMX® is dedicated to providing AV solutions for an IT World. AMX solves the complexity of managing technology with reliable, consistent and scalable systems comprising control, video switching and distribution, digital signage and technology management. AMX systems are deployed worldwide in conference rooms, classrooms, network operation/command centers, homes, hotels, entertainment venues and broadcast facilities, among others. AMX is part of the HARMAN Professional Group, the only total audio, video, lighting, and control vendor in the professional AV market. HARMAN designs, manufactures and markets premier audio, video, infotainment and integrated control solutions for the automotive, consumer and professional markets. Revised 8.25.17. ©2017 Harman. All rights reserved. Specifications subject to change. www.amx.com | +1.469.624.7400 | 800.222.0193



Only Crestron can deliver a smart soundbar – in every space

Simple. Sleek. The Crestron UC Smart Soundbar is a front-of-room solution that brings out the best in every meeting in every size room. Exceptional audio and image quality ensures you'll never miss hearing or seeing a thing. And installation couldn't be easier: mount on wall, and connect power and USB.

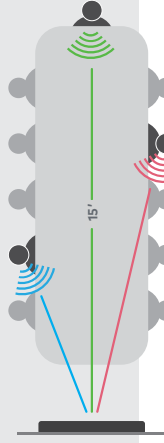




Hear all

Decades of Crestron audio engineering expertise are built into every Crestron UC Smart Soundbar.

- Combines Digital Signal Processing, including Acoustic Echo Cancellation, amplification, speakers, and microphones in one device
- Goes beyond simple voice amplification; supports full range audio and HD audio, so the richest content has the fullest sound
- Employs adaptive beam forming technology to pick up whoever is speaking with pinpoint precision



See all

Choose the camera option that best suits your needs.

Both give you big picture views with as close to real life quality as you can get. Want to zero in on speakers or count attendees? The Crestron UC Smart Soundbar with the enhanced 4K camera is made for you. No matter which camera you choose, you'll pick up on every visual cue and gesture.

UC-SB1-AV

- HD Camera
- Autofocus
- Wide angle



UC-SB1-CAM

- HD camera with 4K sensor
- Ultra-wide angle
- People counting • AutoZoom

Do it all – fast

An installation process that's as close to instant gratification as you can get.

1. Choose the model that's right for your room
2. Integrated bracket makes installation a snap
3. Connect power
4. Plug in USB
5. Play



Hinged mounting allows for easy access to cables

Models for all deployments

Visit [Crestron.com/SmartSoundbar](https://crestron.com/SmartSoundbar) for details on the complete Crestron UC Smart Soundbar Series.

*** Note: The microphone pickup range may be less within rooms that have a highly reflective infrastructure (e.g., glass walls, metal furniture, open ceilings etc.) and/or above average ambient noise.

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VC-B30U USB PTZ Camera

LumensTM
Brilliance by Design

The LumensTM VC-B30U HD Pan/Tilt/Zoom (PTZ) camera has USB 3.0 and HDMI video output interface. It is equipped with a Sony 1/2.8 inch image sensor with Full HD 1080p output resolution and a high dynamic image of 60 fps.

The superior 12x optical zoom lens, excellent white balance, and exposure mode delivers a clear image even in low light or the extreme contrast of brightness and darkness in a conference room. The camera covers a wide shooting angle and achieves high-speed, quiet, and precise positioning with smooth PTZ operations. There are up to 128 preset setting movements and stable remote controlling for displaying effective and efficient presentations. The VC-B30U is applicable for videoconferencing in a huddle room or a medium size conference room.

Key Features

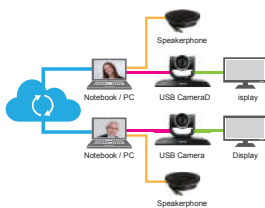
- Full HD 1080p signal output format with a high frame rate of 60 fps
- 12x optical zoom is applicable for a medium size conference room
- Equipped with a Sony 1/2.8 inch image sensor
- Viewing Angle: 74°(H) 82°(D)
- USB 3.0 and HDMI video output interface
- USB 3.0 Plug & Play and compatible with Windows, Linux, MAC OSX, Chrome OS
- Wide range Pan/Tilt/Zoom actions:
Pan angle from -100° to +100°; tilting angle from -30° to +30°
- Up to 128 user-defined preset modes to allow for ease of use in all environments
- Free Lumens Control Software for controlling the cameras without a joy stick controller
- Zoom Certified USB Camera



Compatible with all popular applications and cloud systems:



More Details



Easy Integration with Various Software

The VC-B30U can work seamlessly with any software running on any OS that supports USB 3.0 devices.



Supports a Dual Display Meeting Room

The VC-B30U has one USB connection that can work with any videoconferencing software. One HDMI can be used for the second display regarding viewing the image of one of the speakers.



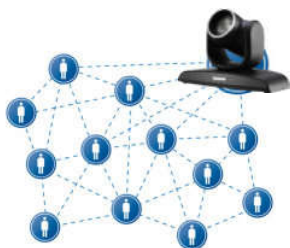
USB 3.0 Plug & Play

The VC-B30U uses standard UVC drivers. There is no need to install special USB drivers. USB 3.0 is 10 times faster than the USB 2.0 standard and it features low latency and non-compress output.



Easy control

Easy control like Pan, Tilt, Zoom and settings by Lumens USB PTZ camera controller software. supports Windows & MAC OS.



128 Preset Positions

The VC-B30U has up to 128 preset settings for pan, tilt, zoom, focus, exposure, and white balance modes for more effective and efficient video recording.



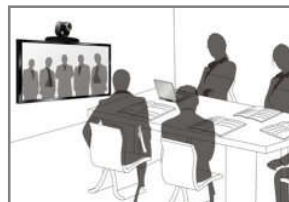
Wide Range Pan/Tilt/Zoom Action

The VC-B30U has a wide shooting area (pan angle from -100° to +100°; tilt angle from -30° to +30°), as well as quiet, fast, and precise positioning movements.



RS-232 Remote Control

The camera's settings and PTZ control functions can be performed remotely at any location and at high communication speeds via the RS-232 interface and supports Daisy-Chain.



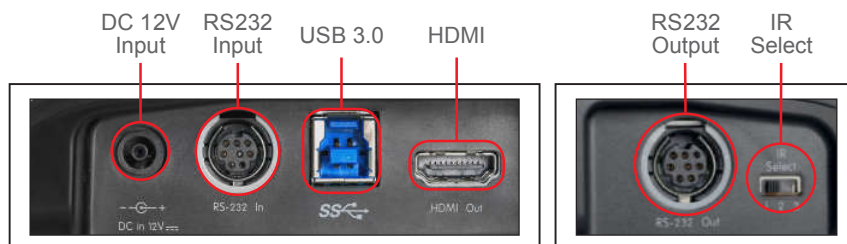
Panoramic Viewing Angle

The VC-B30U has a panoramic 74°(H) 82°(D) Viewing Angle that helps users achieve a wider viewing area.

Product Specifications

Sensor	1/2.8" 2 MP CMOS	Focal Length	f = 3.92 ~ 47.32 mm
Video Output	USB: YUV2 and MJPEG format 1080p 30 / 25 fps 720p 30 / 25 fps HDMI: 1080p 60 / 50 HZ 720p 60 / 50 HZ	Shutter Speed	1/1 ~ 1/10,000 sec
Optical Zoom	12x	Viewing Angle	74°(H) 82°(D)
Digital Zoom	12x (HDMI Out)	Aperture	F1.8 ~ 2.8
Panning Angle	-100° ~ +100°	Minimum illumination	1.6lux (F1.8, 50IRE, 60fps)
Tilting Angle	-30° ~ +30°	Minimum Object Distance	500(Wide) ~ 1200(Tele) mm
Preset Positions	128	Gain Control	Auto, manual
Video Output(HD) Interface	USB 2.0 / 3.0 and HDMI	White Balance	Auto, one-push, manual
Camera Control Interface/Protocol	USB, RS-232 In / Out	Exposure Control	Auto, manual
Video S/N Ratio	> 50dB	Focus System	Auto, manual
		Weight	2.9 lbs (1.3 kg)
		Dimensions (W x D x H)	10.6" x 4.8" x 6.2" (267.8 x 123 x 156.1 mm)

I/O CONNECTIONS



Optional Accessory

VC-AC03 Wall Mount



LumensTM
Brilliance by Design
www.MyLumens.com

Lumens Integration, Inc.
4116 Clipper Court
Fremont, CA 94538
Phone : 888.542.3235
Fax : 510.252.1389

Lumens Europe
Stationstraat 5
1730 Asse, Belgium
Phone : +32 (0) 2 452 76 00
Fax : +32 (0) 2 452 76 00

SHURE

MXA310

Specifications



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MXA310

Specifications

Specifications

All specifications measured from cardioid polar pattern. Values for all patterns are within ± 3 dB of these specifications unless otherwise noted.

Polar Pattern

All channels independently adjustable

Cardioid, Hypercardioid, Supercardioid, Toroid, Omnidirectional, Bidirectional

Connector Type

RJ45

Power Requirements

Power over Ethernet (PoE), Class 0

Power Consumption

4W, maximum

Weight

362 g (0.8 lbs)

Dimensions

H x W x D

3.6 x 13.4 x 13.4 cm (1.4 x 5.3 x 5.3 in.)

control application

HTML5 Browser-based

Operating Temperature Range

-6.7°C (20°F) to 40°C (104°F)

Storage Temperature Range

-29°C (-20°F) to 74°C (165°F)

Audio

Frequency Response

100 to 20,000 Hz

Dante Digital Output

Channel Count	5 total channels (4 independent transmit channels, 1 Automatic mixing transmit channel)
----------------------	---

Sampling Rate	48 kHz
Bit Depth	24

Sensitivity

at 1 kHz, , -15 dB Gain Setting

-21 dBFS/Pa

Maximum SPL

1 kHz at 1% THD, -15 dB Gain Setting

115.2 dB SPL

Signal-To-Noise Ratio

Ref. 94 dB SPL at 1 kHz, -15 dB Gain Setting

Cardioid	75 dB
Toroid	67 dB

Latency

Not including Dante latency

<1 ms

Self Noise

-15 dB Gain Setting

Cardioid	19.2 dB SPL-A
Toroid	26.8 dB SPL-A

Dynamic Range

-15 dB Gain Setting

Cardioid	96 dB
Toroid	90 dB SPL

Built-in Digital Signal Processing

Per Channel	Equalizer (4-band Parametric) , Mute, Gain (140 dB range)
System	Automatic mixing, Low-Cut Filter (-12 dB/octave @150 Hz)

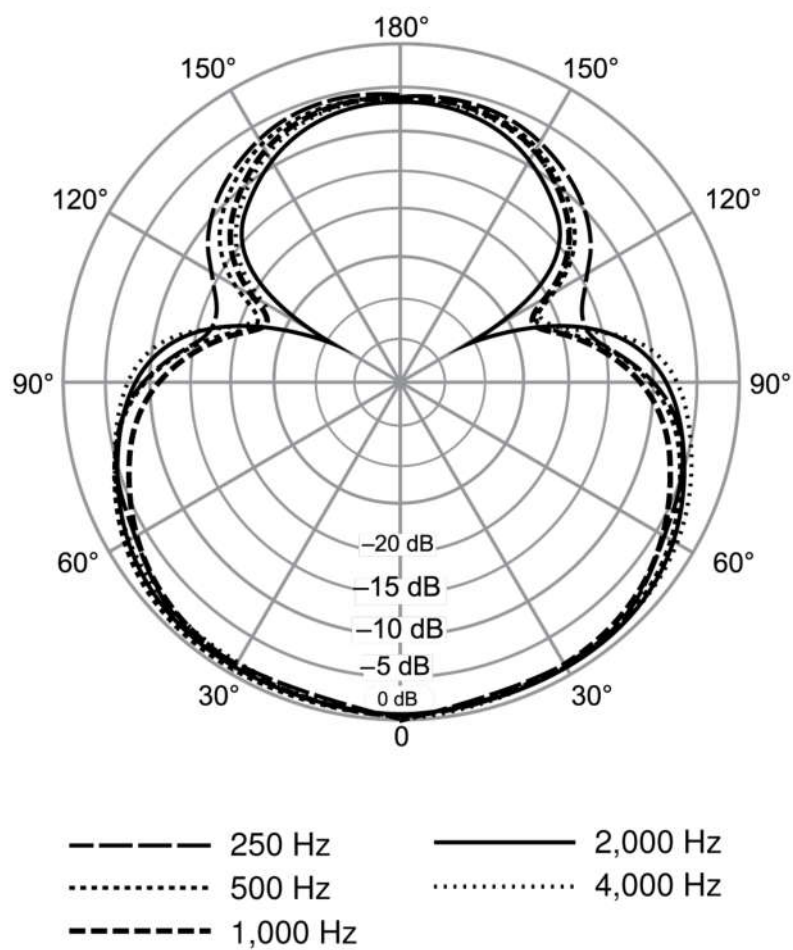
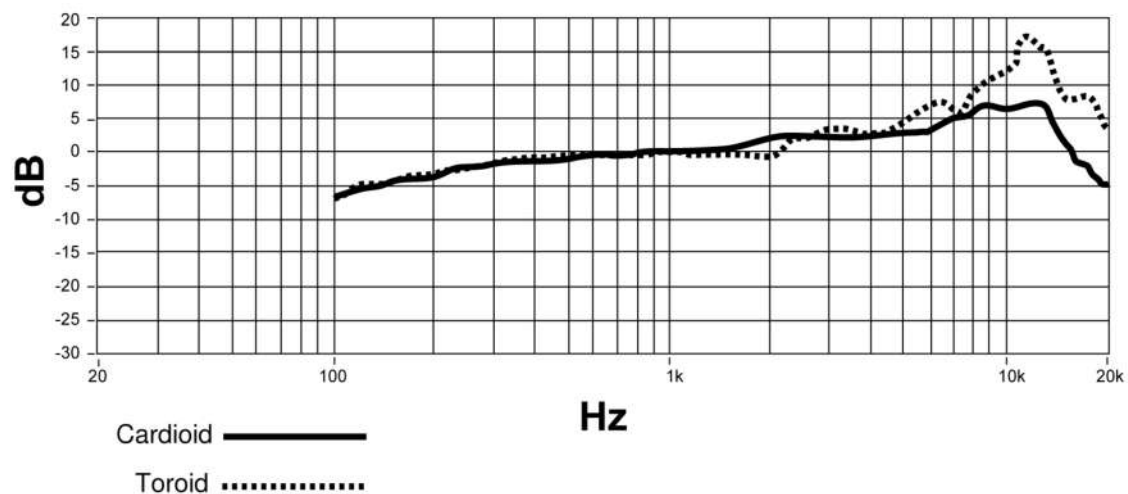
Networking

Cable Requirements

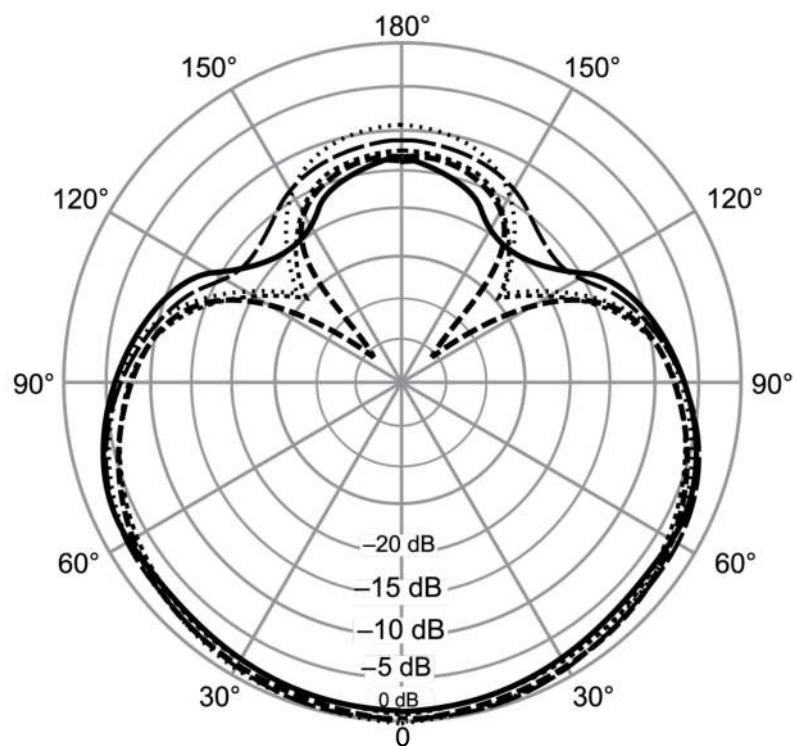
Cat 5e or higher (shielded cable recommended)

Frequency Response

Frequency response measured from a distance of 2 feet (61 cm).

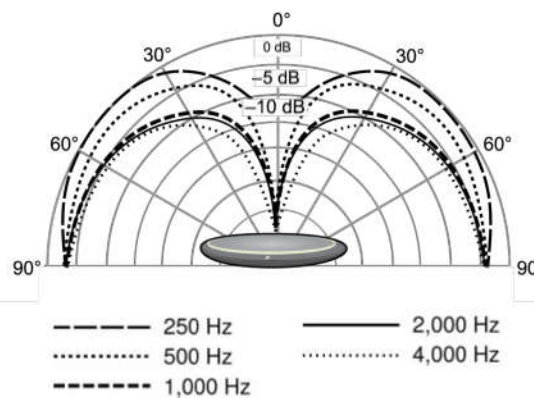
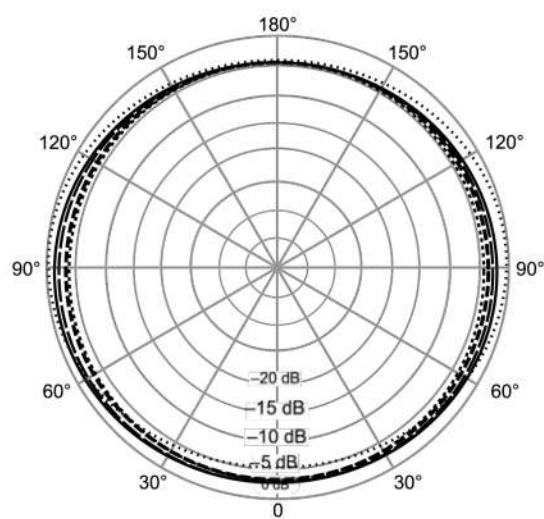


Hypercardioid

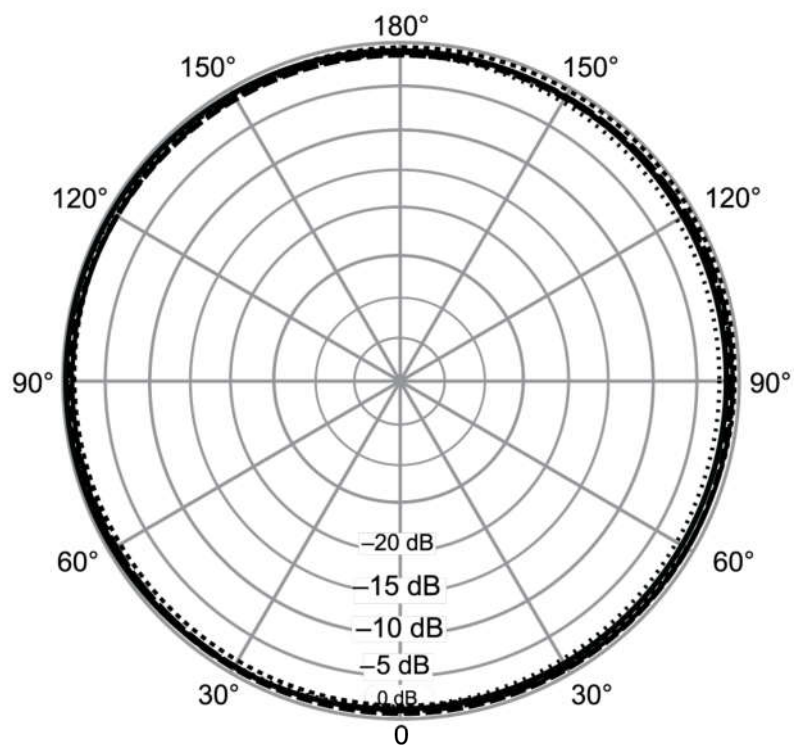


----- 250 Hz ————— 2,000 Hz
..... 500 Hz 4,000 Hz
- . - . - . 1,000 Hz

Supercardioid

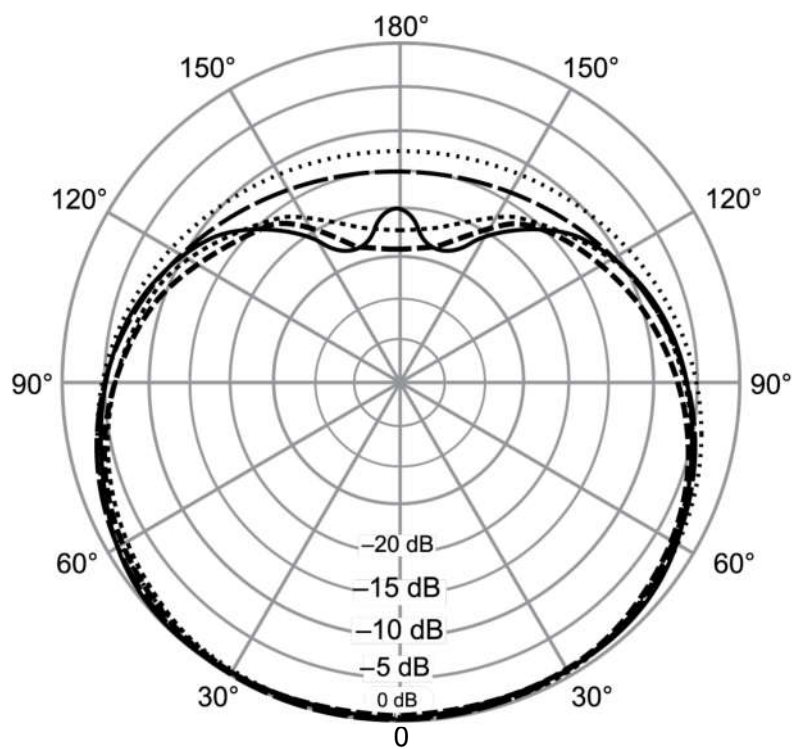


Toroid



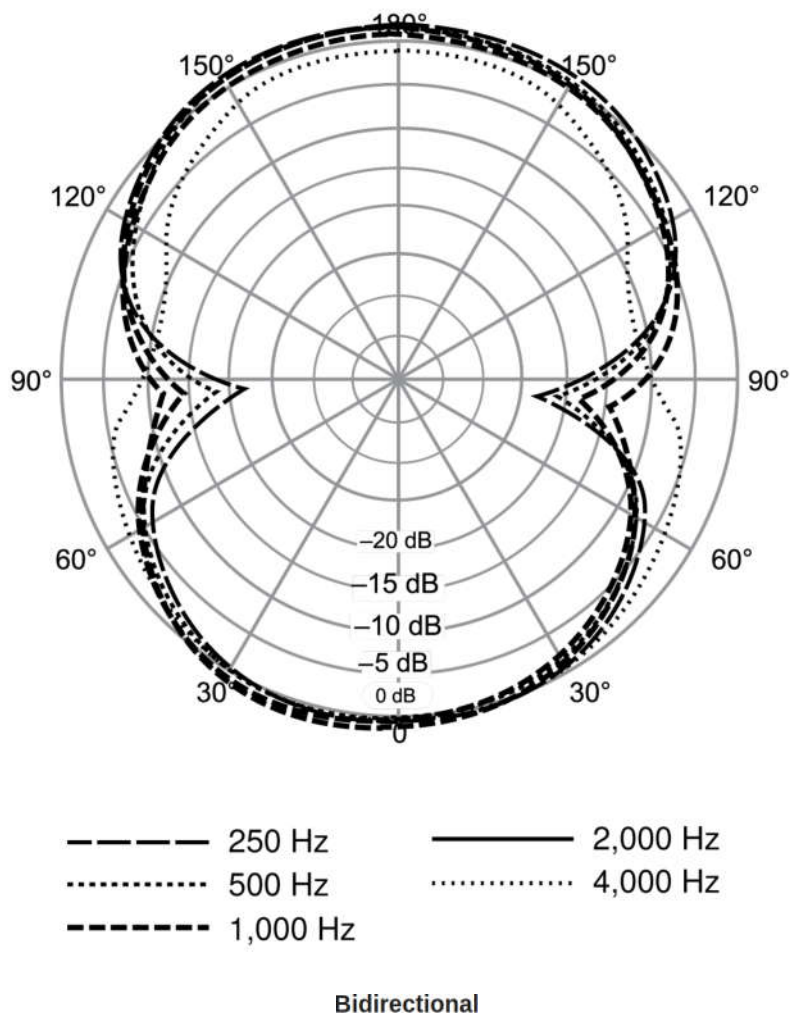
----- 250 Hz	———— 2,000 Hz
..... 500 Hz 4,000 Hz
----- 1,000 Hz	

Omnidirectional



----- 250 Hz	———— 2,000 Hz
..... 500 Hz 4,000 Hz
----- 1,000 Hz	

Cardioid



IP Ports and Protocols

Shure Control

Port	TCP/UDP	Protocol	Description	Factory Default
21	tcp	FTP	Required for firmware updates (otherwise closed)	Closed
22	tcp	SSH	Not supported	Closed
23	tcp	Telnet	Standard console interface	Closed
68	udp	DHCP	Dynamic Host Configuration Protocol	Open
80*	tcp	HTTP	Required to launch embedded web server	Open
427	tcp/udp	SLP [†]	Required for inter-device communication	Open

Port	TCP/UDP	Protocol	Description	Factory Default
443	tcp	HTTPS	Not supported	Closed
161	tcp	SNMP	Not supported	Closed
162	tcp	SNMP	Not supported	Closed
2202	tcp	ASCII	Required for 3rd party control strings	Open
5353	udp	mDNS [†]	Required for device discovery	Open
5568	udp	SDT [†]	Required for inter-device communication	Open
8023	tcp	Telnet	Debug console interface	Password
8180*	tcp	HTML	Required for web application	Open
8427	udp	Multicast SLP [†]	Required for inter-device communication	Open
64000	tcp	Telnet	Required for Shure firmware update	Open

Dante Audio & Controller

Port	TCP/UDP	Protocol	Description
162	udp	SNMP	Used by Dante
[319-320]*	udp	PTP [†]	Dante clocking
2203	udp	Custom	Required for packet bridge
4321, 14336-14600	udp	Dante	Dante audio
[4440, 4444, 4455]*	udp	Dante	Dante audio routing
5353	udp	mDNS [†]	Used by Dante
[8700-8706, 8800]*	udp	Dante	Dante Control and Monitoring
8751	udp	Dante	Dante Controller
16000-65536	udp	Dante	Used by Dante

*These ports must be open on the PC or control system to access the device through a firewall.

[†]These protocols require multicast. Ensure multicast has been correctly configured for your network.



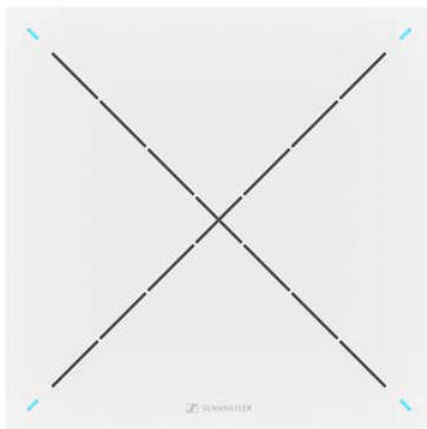
TeamConnect Ceiling 2

Ceiling microphone array

FEATURES

- Ceiling microphone array with patented automatic speaker position detection and dynamic beamforming for best speech intelligibility
- Analog and digital (Dante™) audio outputs for easy connectivity to video and audio conference systems
- Configuration and monitoring via Sennheiser's unique Control Cockpit software
- Open API for media and camera control applications
- 802.1X network configuration via SSH
- Several installation options via suspension kit, flush-mount or surface bracket
- Certified for Microsoft Teams Rooms when deployed with Microsoft-certified DSPs.

TeamConnect Ceiling 2 offers superior audio quality for voice and video conferences. Thanks to Sennheiser's patented adaptive beamforming technology it automatically follows the active speaker's voice, letting people speak naturally – whether they are sitting, standing or walking around the room. TeamConnect Ceiling 2 offers great versatility and interoperability with support for Dante™ networks and Power over Ethernet. It is compatible with Sennheiser's Control Cockpit software for efficient remote management, and offers remote configuration and monitoring via an open media control protocol (API), allowing for easy integration into media systems.



DELIVERY INCLUDES

- TeamConnect Ceiling 2 ceiling microphone array
- 3-pin Phoenix Connector (3.81 mm)
- 8 self-adhesive rubber feet
- Instruction manual
- Supplement sheet with manufacturer declarations

CONTROL SOFTWARE

Sennheiser Control Cockpit



free download at:

www.sennheiser.com/control-cockpit-software

ACCESSORIES

SL CM FB	Ceiling mounting frame	Art. no.	506846
SL CM EB US	Extension brackets (for 2 ft ceiling grid)	Art. no.	508528
SL CM EB 625	Extension brackets (for 625 mm ceiling grid)	Art. no.	508290
SL CM SK	Ceiling suspension kit	Art. no.	508291
SL CM VB	VESA adapter	Art. no.	508620

PORT REQUIREMENTS

Port	Protocol	Service	Product
45	UDP	SSC (Sennheiser Sound Control Protocol)	TeamConnect Ceiling 2
69	UDP	tftp (only temporary during firmware update)	TeamConnect Ceiling 2
5353	UDP	mDNS via Multicast 224.0.0.251	TeamConnect Ceiling 2
8181	HTTP	Web UI	Control Cockpit
80	HTTP	Control Cockpit update service	Control Cockpit



TeamConnect Ceiling 2

Ceiling microphone array

SPECIFICATIONS

Product properties

Dimensions (L x B x H)	590 x 590 x 43 mm
Weight	5670 g (12.5 lbs)
Audio Output	1 x 3-pin terminal (fits Phoenix contact MCVW 1.5-3-ST-3.81) 2 x Digital Dante Network Audio (RJ-45 Primary and Secondary)
Ethernet / Control	1 x RJ-45 Ethernet Port for PoE power supply and data/control communication
Supply voltage	44 – 57 V DC PoE IEEE 802.3af Class 3
Power consumption	max. 8.8 W
Safety certification	UL 62368 certification (including UL 2043 testing and compliance)

Acoustic properties

Transducer principle	Pre-polarized condenser microphone
AF frequency response	160 Hz - 18,000 Hz
Sensitivity	0 dBV/Pa (988 mV/Pa)
Signal-to-noise ratio	83 dB (A)
Latency	4 ms
Equivalent noise level	11 dB (A)
Number of KE 10-237 mikrofon capsules	28
Pick-up pattern	Beam Pattern
Max. sound pressure level	104 dB SPL
Dynamic range	93 dB (A)

Ambient conditions

Temperature	Operation:	0 - 40°C (32 - 104 °F)
	Storage:	-10 - 60°C (14 - 140 °F)
Relative air humidity	20 - 95 %, non-condensing	

INSTALLATION VARIANTS

Variant 1

installed flush in a dropped/coffered ceiling (600 x 600 mm)



Accessories:

SL CM EB US (590 mm to 2 ft) or
SL CM EB 625 (590 mm to 625 mm)
angle brackets

Variant 2

mounted directly below the ceiling



Accessories:

SL CM FB Ceiling mounting frame

Variant 3

suspended from the ceiling



Accessories:

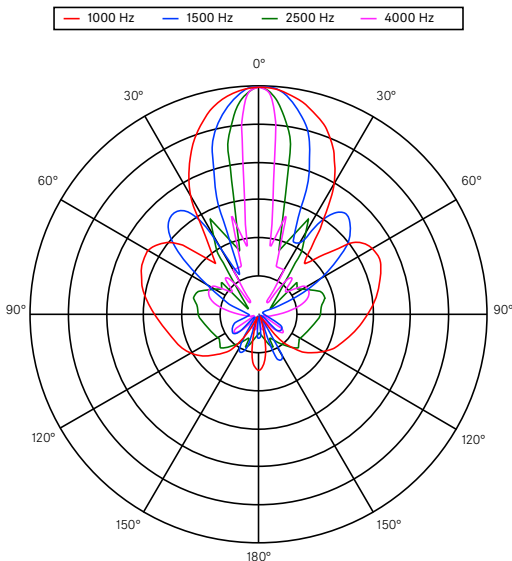
SL CM SK Ceiling suspension set



TeamConnect Ceiling 2

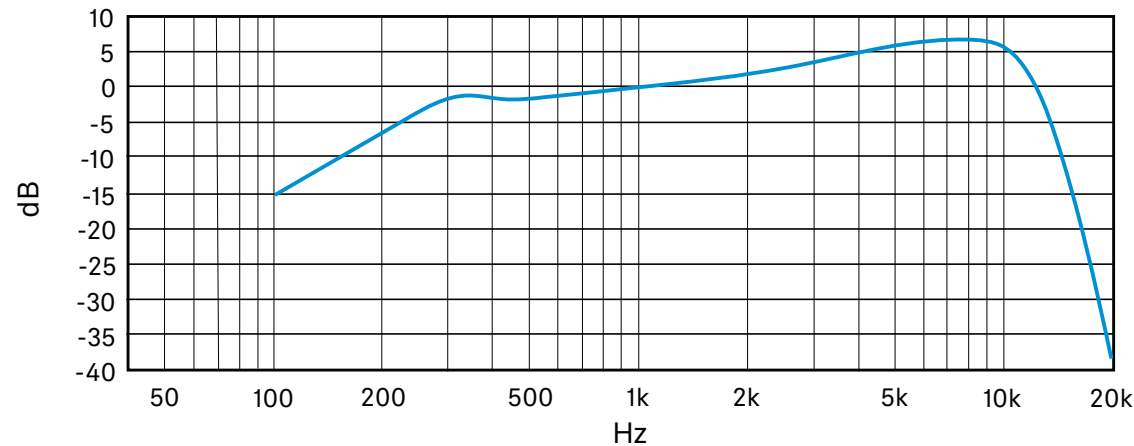
Ceiling microphone array

POLAR PATTERN



FREQUENCY RESPONSE

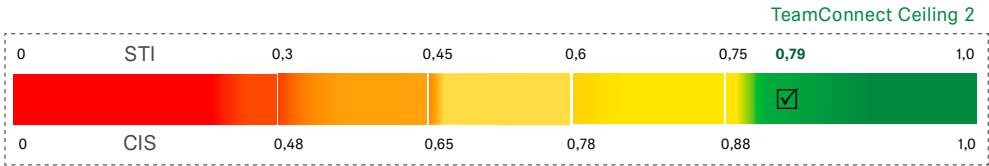
Frequency response measured directly on-axis at a distance of 2.90 m.



SPEECH TRANSMISSION INDEX (STI)

Room conditions: RT60 = 430 ms @ 1 kHz
at room noise level (weighted) = 40 dB(A) SPL (according to IEC 60268-16)

STIPA: 0.79

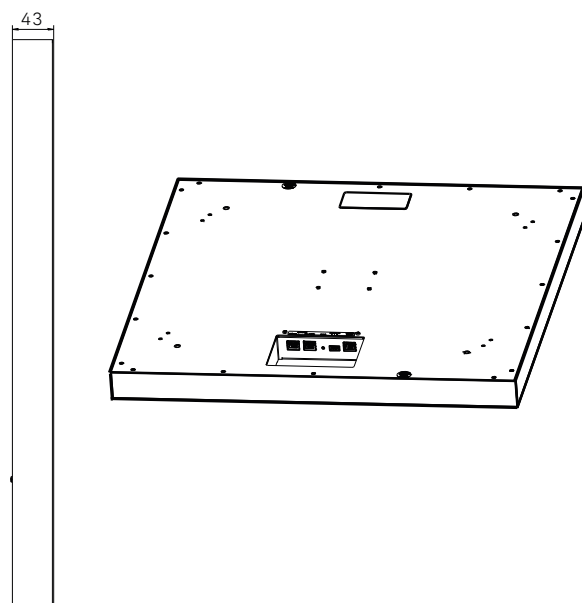
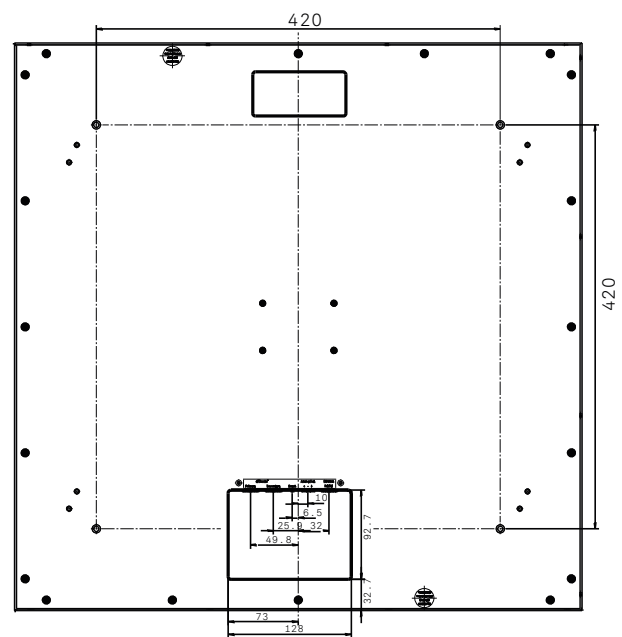
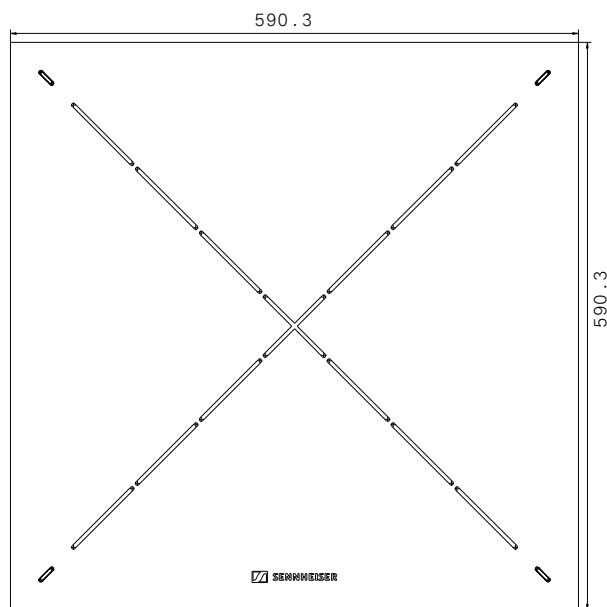


TeamConnect Ceiling 2

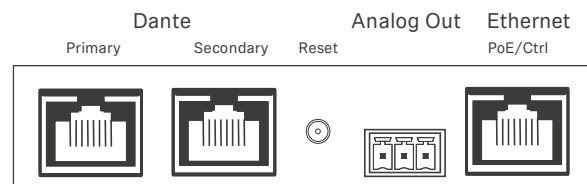
Ceiling microphone array

DIMENSIONS

TeamConnect Ceiling 2



CONNECTIONS AND OPERATING ELEMENTS



Dante Dante™ interface with two RJ 45 sockets
Primary and Secondary

Reset	Factory reset switch
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Analog Out 3-pin terminal for analog audio out

Ethernet	RJ 45 socket for network control and PoE
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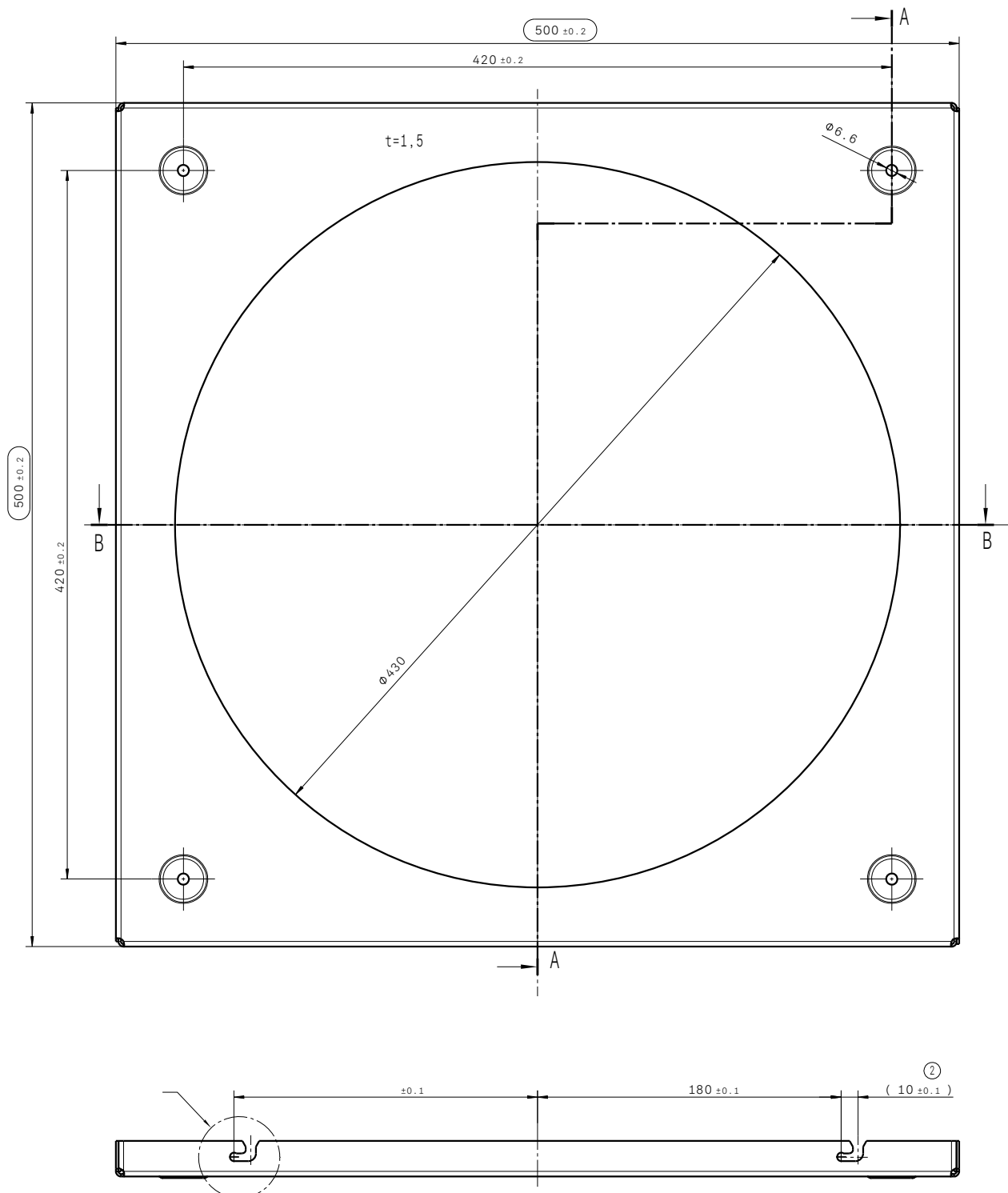


TeamConnect Ceiling 2

Ceiling microphone array

DIMENSIONS

SL CM FB - Mounting bracket (Surface)



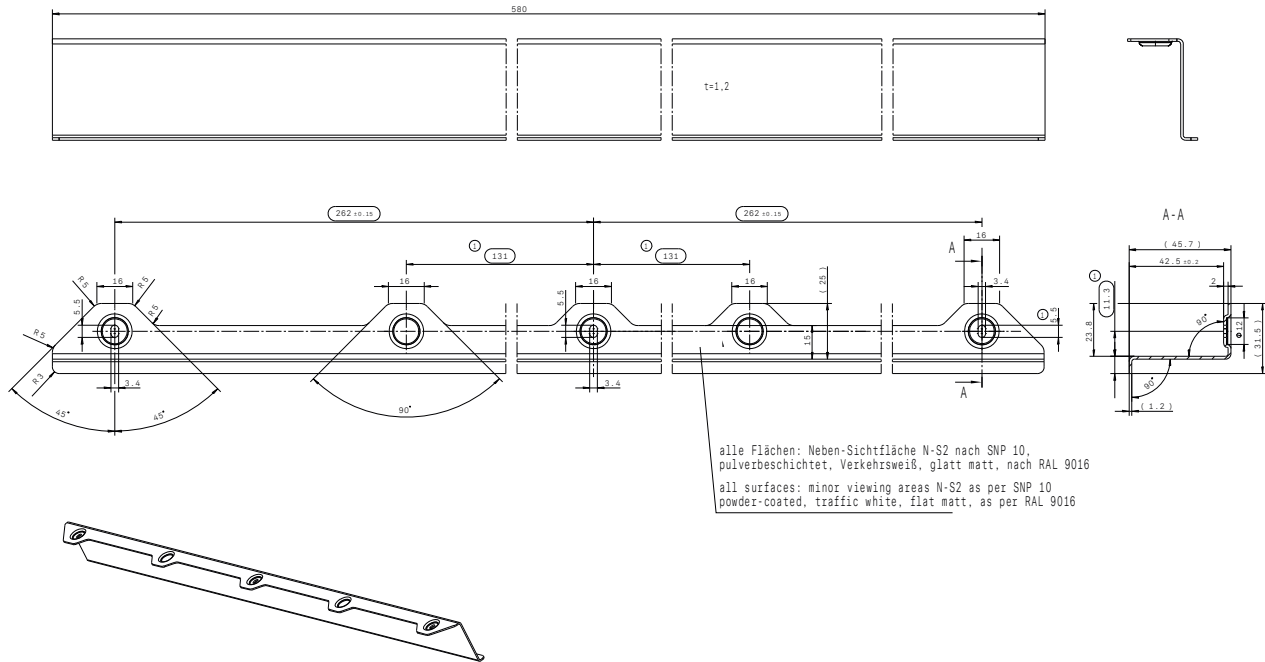


TeamConnect Ceiling 2

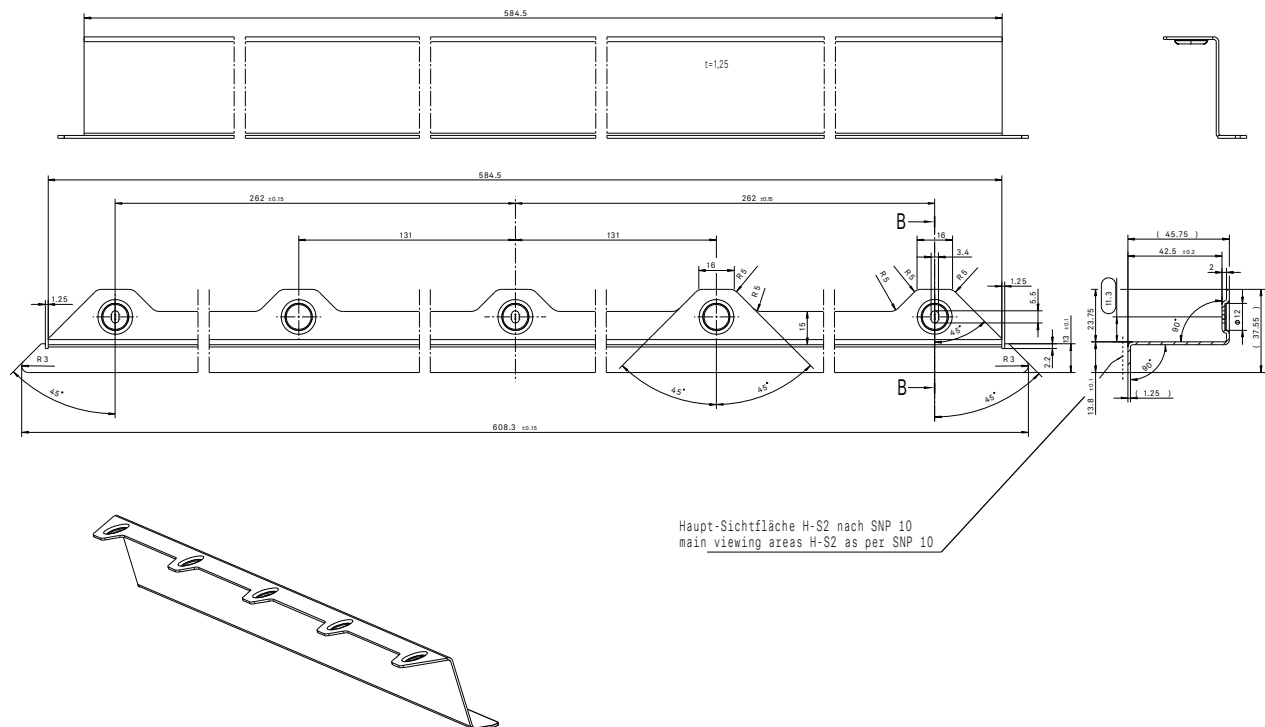
Ceiling microphone array

DIMENSIONS

SL CM EB US - Extension brackets 2 ft (609.6 mm)



SL CM EB 625 - Extension brackets 625 mm



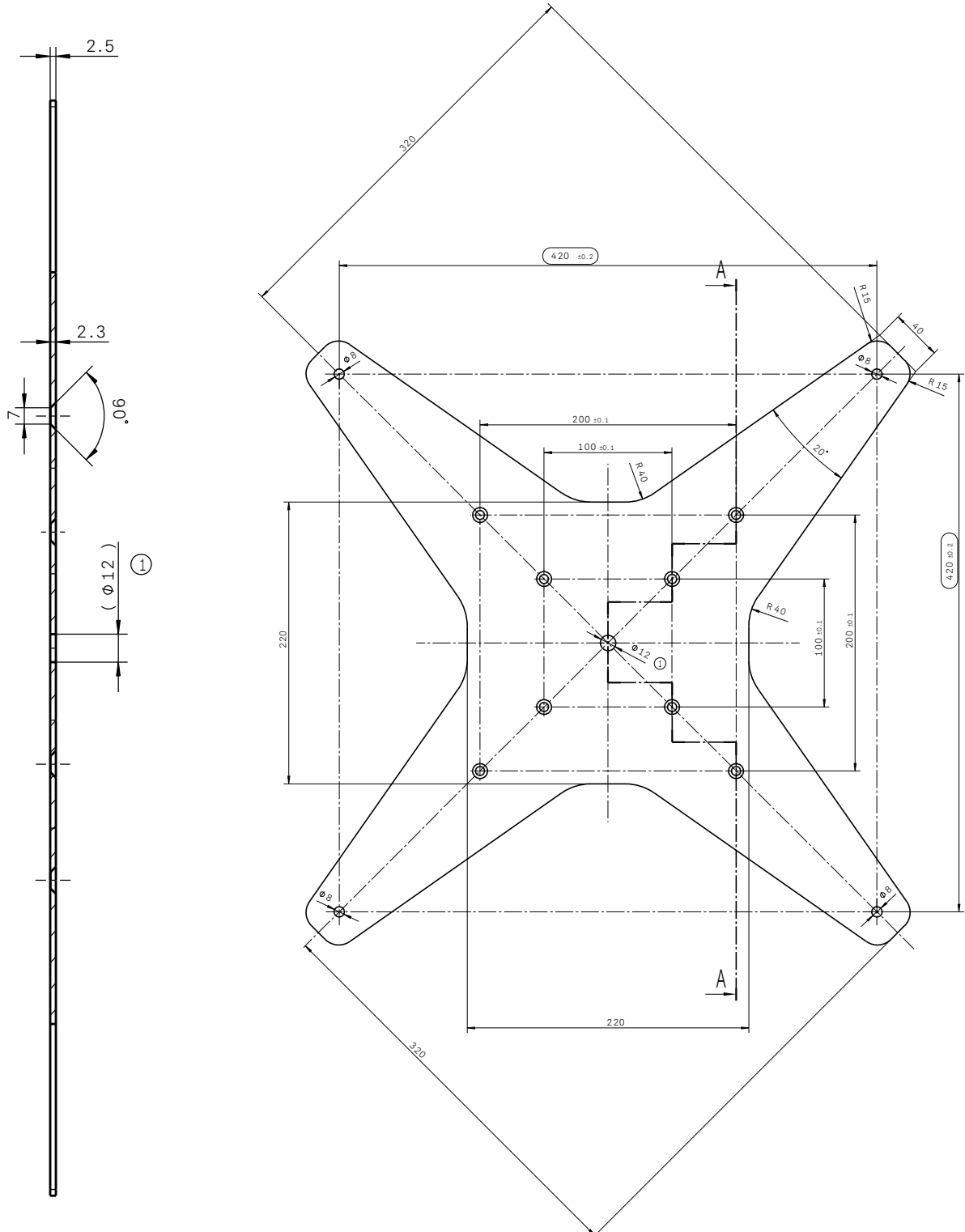


TeamConnect Ceiling 2

Ceiling microphone array

DIMENSIONS

SL CM VB - VESA adapter





TeamConnect Ceiling 2

Ceiling microphone array

ARCHITECT'S SPECIFICATION

The ceiling mounted microphone array shall be designed for fixed installation in medium to large conference rooms. The microphone array shall fit within the space of a standard 600 mm (2 ft.) ceiling panel and shall be mountable either onto or flush with the ceiling itself. Several mounting accessories shall be available, including a ceiling suspension kit, a ceiling fixation bracket as well as mounting brackets for US size ceiling panels and for 625 mm ceiling panels. Additionally, a VESA adapter shall be available for all standard 100 mm and 200 mm VESA mounting material.

The microphone array shall consist of 28 Sennheiser KE 10-237 pre-polarized condenser microphone capsules and shall use beamforming technology that automatically focuses on whoever is speaking in the room. The beam will automatically detect the position of the person speaking and will follow the person around the room at all times. A threshold for the detection shall be adjustable. Live monitoring of the horizontal and vertical angle of the position shall be available in the Sennheiser Control Cockpit control software.

The microphone array shall have a Dante™ interface with two RJ 45 sockets (Primary and Secondary) for digital audio output, supporting both redundant and daisy-chain modes. The microphone array shall also feature a 3-pin terminal for analog audio output, which is compatible with Phoenix contact MCVW 1.5-3-ST-3.81 connectors.

In addition, the microphone array shall have an RJ 45 Ethernet socket for network control and easy configuration and monitoring using the Sennheiser Control Cockpit control software. The RJ 45 Ethernet socket shall also support Power over Ethernet, using the PoE IEEE 802.3af Class 3 standard.

802.1X network configuration shall be possible via SSH protocol.

The microphone array shall feature a reset button for restoring the factory settings.

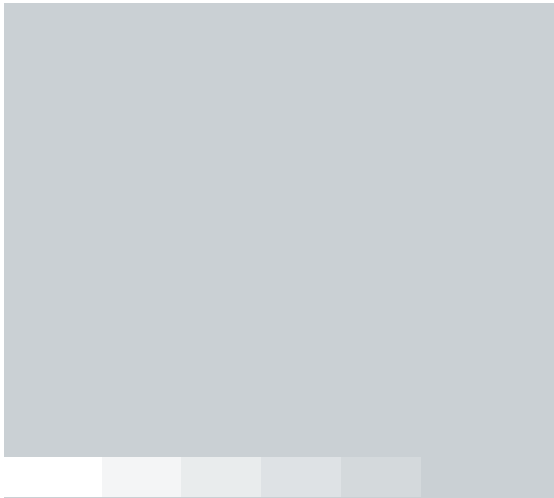
The microphone sensitivity shall be 0 dBV/Pa (988 mV/Pa). The maximum sound pressure level shall be 104 dB SPL. The dynamic range shall be 93 dB(A).

The microphone dimensions (L x W x H) shall be 590 x 590 x 43 mm (23.2" x 23.2" x 1.7"), weight shall be 5670 g (12.5 lbs). The operating temperature shall range from 0 °C to +40 °C (+32 °F to +104 °F). The storage temperature shall range from -10 °C to 60 °C (14 °F to 140 °F). The microphone array shall be tested according to UL 2043 rating.

The microphone array shall be the Sennheiser TeamConnect Ceiling 2.

ClickShare CX-20

Transform small meeting rooms and huddle spaces into inspiring conference facilities.



- Full BYOD support
- Remote collaboration
- Triple agnostic: works with any device, and UC technology and any brand of AV peripheral
- Enhanced security
- Connected and cloud managed
- Delivered with 1 Conferencing Button
- Collaborate with Conferencing Button or Collaboration App

The modern world of enterprise requires smooth collaboration and flexibility, especially when it comes to team meetings in huddle rooms, and this is exactly what Barco ClickShare CX-20 provides. Encouraging creative innovation through seamless wireless conferencing, ClickShare CX-20 can make meetings more inspiring and more productive.

Start a huddle meeting from your device

With ClickShare CX-20, it's easier than ever to start remote huddle meetings from your device, bringing a seamless and immersive conferencing experience to all participants, whether local, guest or remote. Use your preferred conferencing software combined with the ClickShare Conferencing Button and you can start your conference in less than seven seconds. The CX-20 connects wirelessly to existing huddle room cameras, speakerphones and audio peripherals, saving time and maximizing efficiency.

Decide how you want to collaborate

ClickShare CX-20 provides you with exceptional flexibility and choice, enabling you to decide just how you want to collaborate. Whether you're on PC, Mac or mobile, the ClickShare Wireless Conferencing Button and ClickShare Collaboration App facilitate a user experience that's both straightforward and consistent. In addition to its multi-device compatibility, ClickShare CX-20 is also fully compatible with your conferencing platform (UC) technology and your brand of USB-peripherals. Additional features such as local view of the room display help to optimize the experience.

Enhanced security and seamless integration

A perfect fit for any business environment, the ClickShare CX-20 wireless conferencing system comes equipped with a selection of great features for enhanced security and seamless integration. ClickShare Conference provides hassle-free integration with any IT network, while the XMS (Cloud) Management Platform provides for easy device management, as well as an intuitive user experience and clear analytics to get more out of your digital workspace.

PRODUCT SPECIFICATIONS**CLICKSHARE CX-20**

ClickShare Base Unit dimensions	
Dimensions (HxWxD)	34 mm x 135 mm x 135 mm
Power supply	Standard 110/220 V AC plug
Power consumption	Operational: 5-10W, 24W Max
Weight	900 gr
General specifications	
Operating system	Windows 8/8.1/10, macOS 10.13 and higher. Android v9 and higher (ClickShare App)* iOS 12 and higher (ClickShare App)*
Video outputs	4K UHD (3840*2160) @ 30Hz, HDMI 1.4b
Audio output	USB, HDMI
USB	1 X USB-A, 1 X USB-C
Clickshare Buttons	1
ClickShare App	Desktop & Mobile*
Native protocols	Airplay, Google Cast*, Miracast*
Noise Level	Max. 25dBA @ 0-30°C Max. 30dBA @ 30-40°C
Authentication protocol	WPA2-PSK in stand alone mode WPA2-PSK or IEEE 802.1X using the ClickShare Button in network integration mode
Wireless transmission protocol	IEEE 802.11 a/g/n/ac and IEEE 802.15.1
Reach	Adjustable with signal strength modulation; max. 30m (100 ft) between ClickShare Button and ClickShare Base Unit Frequency band 2.4 GHz and 5 GHz (DFS)
Frequency band	2.4 GHz and 5 GHz (DFS channels supported in select number of countries)
Connections	1x Ethernet LAN 1Gbit 1x USB Type-C 2.0 (front); 1x USB Type A 2.0 (front)
Temperature range	Operating: 0°C to +40°C (+32°F to +104°F) Max: 35°C (95°F) at 3000m Storage: -20°C to +60°C (-4°F to +140°F)
Humidity	Storage: 0 to 90% relative humidity, non-condensing Operation: 0 to 85% relative humidity, non-condensing
Anti-theft system	Kensington lock
Certifications	FCC/CE
Touch screen support & Interactivity	/
Room Dock (peripheral support)	Yes
Local view & moderation	Local view of the room display only
Network connection	LAN & WiFi *
Management and reporting	Yes
Warranty	1 year standard, 5 years coverage via SmartCare
*	* depends on configuration, available in future firmware updates

Last updated: 21 Apr 2020Technical specifications are subject to change without prior notice. Please check www.barco.com for the latest information.

Dante AVIO™

NETWORK EVERYTHING



Network all your audio gear easily and cost-effectively with Dante AVIO™

Dante AVIO Adapters let you use all your legacy audio gear with any Dante-connected system, delivering the interoperability, performance and scalability that only networking can bring. Cost effective, compact and built for the road, Dante AVIO adapters bring the modern network connectivity that every audio pro needs in their toolbox.

Dante AVIO adapters are available for 3 popular types of audio I/O: Analog, AES3 and USB.

Plug & Play

Each Dante AVIO adapter is a complete, high-performance Dante device, delivering all the automation and ease of use that have made Dante the most popular audio networking solution worldwide.

Dante AVIO adapters are automatically discovered and ready to use when connected, and no separate power supplies are required – just use a common PoE (Power over Ethernet) switch and Dante AVIO adapters are ready to go. The USB adapter can also be powered via USB.

Built for the Road

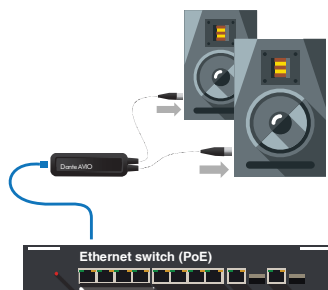
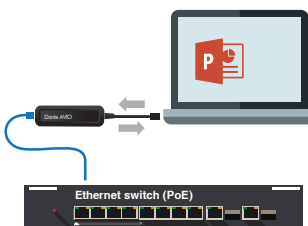
We've made Dante AVIO adapters road-ready and tour-tough. Sonically-welded ABS enclosures and quality hardware are used throughout, while cable assemblies are stress-tested to ensure reliable operation under grueling conditions. Toss them in your toolbox, show after show.

All Dante

Dante AVIO adapters are all fully-functional Dante interfaces, with all the features you'd expect from Dante audio networking. Each one delivers bit-perfect audio reproduction, super-low latency and sample-accurate synchronization across the entire network.

All Dante devices automatically discover one another, and the entire system is managed by our easy-to-use Dante Controller software on any connected PC or Mac. Most importantly, every Dante device can connect to every other Dante device – no questions asked.

All Dante AVIO adapters are fully compatible with Dante Domain Manager (DDM) for IT-level security and management. AES67 is supported for connection to non-Dante networks.



audinate

MEDIA NETWORKING TECHNOLOGY

EXAMPLE USE CASES

Analog Input

- ▶ Connect legacy mixers and consoles to a Dante network
- ▶ Patch favorite DSPs, analog compressors and equalizers into a Dante system using a combination of Input and Output adapters
- ▶ Connect stage DI boxes and keyboard instruments directly to a Dante network
- ▶ Connect your wireless mic receiver to a Dante network

Analog Output

- ▶ Connect analog powered speakers to your Dante audio network
- ▶ Send audio to analog power amplifiers over a Dante audio network
- ▶ Create easy drop-points for connecting cry rooms and overflow areas to a Dante network
- ▶ Connect non-networked hearing aid loop amplifiers to your Dante audio network

AES3

- ▶ Interface with SDI video systems using AES3 audio
- ▶ Put your AES3-compatible amplifiers and powered speakers on your Dante audio network
- ▶ Connect AES3-compatible DSPs to a Dante network
- ▶ Connect AES3-compatible microphone preamplifiers to a Dante network

USB

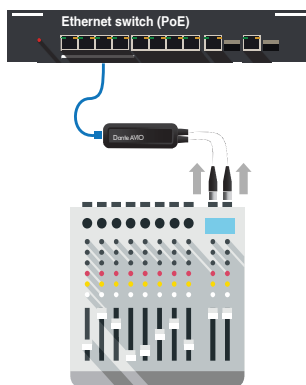
- ▶ Easy audio drop-point for laptops in conference settings, no need to reconfigure your Dante network for different computers
- ▶ Record or playback 2-channel audio from any PC or Mac with no additional software at all
- ▶ Connect mobile devices to a Dante network (with USB adapters)

Dante®

www.audinate.com

Cost-effective

We've worked hard to make the Dante AVIO family of products a cost-effective addition to any system or piece of gear, so that everyone can enjoy the benefits of Dante. Audio networking has never been easier or more affordable, no matter how you choose to use it.



Dante AVIO Analog Input & Output

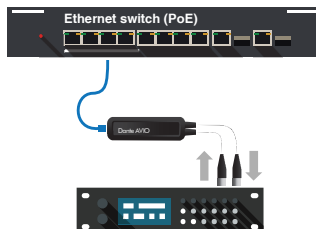
Dante AVIO Analog Adapters allow you to use the audio gear you already own with your Dante network. Don't abandon trusted compressors, equalizers or analog power amplifiers - adapt them to the world of audio networking with Dante AVIO.

Dante AVIO Analog Adapters are available as balanced line-level single or dual-channel input or output adapters, with high-quality XLR connectors. Use the Analog Dante AVIO Adapters to add Dante networking to analog amplifiers, powered loudspeakers, signal processors, music players or any other analog audio device, for hum-free digital signal distribution throughout your audio network.

Dante AVIO AES3

The Dante AVIO AES3/EBU Adapter supports 2x2 channels, with high-quality XLR input and output

connectors and built-in asynchronous sample rate conversion. Use the AES3 Dante AVIO Adapters to add Dante networking to amplifiers, speaker processors, mixing consoles, video systems and more.



Dante AVIO USB

The Dante AVIO USB Adapter supports 2x2 channels and is perfect for BYOD (Bring Your Own Device) applications in installed audio systems such as conference rooms. Dante AVIO USB is a class-compliant USB 2.0 audio device, so no drivers or additional software is required on Windows, macOS or Linux.

Feature Matrix	Analog Input 1 Ch		Analog Input 2 Ch		Analog Output 1 Ch		Analog Output 2 Ch		AES3 I/O 2 In 2 Out	USB I/O 2 In 2 Out	
Max signal level (Balanced)	+24dBu / +4dBu / 0dBu 0dBV / -10dBV				+18dBu / +4dBu / 0dBu 0dBV / -10dBV				-	-	
Frequency Response	20Hz to 20kHz (±0.5dB)				20Hz to 20kHz (±0.5dB)				-	-	
Impedance	20k Ohm balanced 10k Ohm unbalanced				150 Ohm balanced 75 Ohm unbalanced				110 Ohm Balanced	-	
Dynamic Range	> 100dB				> 100dB				-	-	
Signal to Noise Ratio	> 100dB				> 100dB				> 135dB	-	
Total Harmonic Distortion	< 0.01% at +4dBu				< 0.01% at +4dBu				-	-	
Connectors	RJ45 1 XLR-F		RJ45 2 XLR-F		RJ45 1 XLR-M		RJ45 2 XLR-M		RJ45 1 XLR-M 1 XLR-F	RJ45 USB Type A	
Power	Class 1 802.3af PoE										PoE & USB
Asynchronous Sample Rate Conversion	-				-				Yes	-	
Sample Rates	44.1, 48, 96 kHz										48 kHz
Bit Depth	24										
Network Transport	Dante Audio over IP AES67 RTP										
USB	-				-				-	Class Compliant	
Part Number	ADP-DAI-AU-1X0	ADP-DAI-AU-2X0		ADP-DAO-AU-0X1		ADP-DAO-AU-0X2		ADP-AES3-AU-2X2	ADP-USB-AU-2X2		

Availability

Dante AVIO Adapters will be commercially available in Q2 2018.

Audinate

MEDIA NETWORKING TECHNOLOGY

FEATURES

- ▶ Plug & play operation
- ▶ Built for the road
- ▶ Sample rates up to 96 kHz (48 kHz for USB)
- ▶ Excellent dynamic range, SNR and THD performance
- ▶ Configurable gain / attenuation (analog input and output models only)
- ▶ Asynchronous Sample Rate Conversion (AES3 model only)
- ▶ Dante Audio over IP and AES67 RTP transport formats
- ▶ Power over Ethernet (PoE) support
- ▶ Dante Domain Manager ready

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