

DATA SHEET

DESONO™ C-IC6

CONFERENCING LOUDSPEAKER



The desono™ C-IC6 is a low-profile, two-way passive coaxial loudspeaker optimized for speech reproduction in conferencing applications. Designed with the installer in mind, the C-IC6 loudspeaker supports audio connections via either standard category cable or traditional speaker cable. They can be blind-mounted from below the ceiling, and feature a magnetic grill for easy toolless installation and removal. The grill plates are available in white, black, or red, or can be painted to match the room decor. The C-IC6 also directly integrates with the Tesira® AMP-450BP—a four-channel “backpack” PoE+ amplifier—which reduces wiring requirements and installation time. The desono C-IC6 loudspeakers are an ideal choice for any conferencing space that demands superior speech reproduction.

FEATURES

- 60W with a peak power of 120W
- Low profile passive loudspeaker, less than 6 inches (151mm) total depth
- 8-ohm nominal impedance
- 130° coverage angle optimized for low ceilings
- Supports both standard category cables and traditional speaker wiring for audio connections
- Directly integrates with the AMP-450BP (PoE+ amplifier)
- Bridge-mounted 1 inch (25mm) soft dome tweeter
- 6.5 inch (165mm) treated paper woofer mechanically isolated from the high frequency driver
- Integrated flex conduit knockouts
- Evaluated to the requirements of UL 1480a and UL 2043 and is suitable for use in air handling spaces
- Complete EASE, CLF, and CAD information available on biamp.com
- CE marked, UL listed, and RoHS compliant
- Covered by Biamp Systems’ seven-year warranty

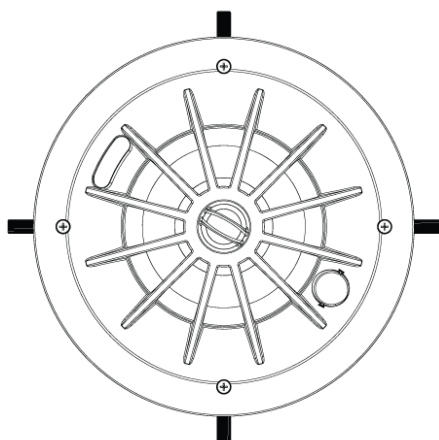
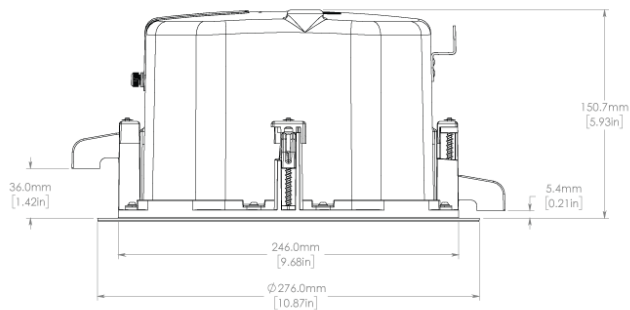
ARCHITECTS & ENGINEERS SPECIFICATIONS

The loudspeaker shall be a two-way, passive coaxial design intended for in-ceiling mounting. The loudspeaker shall be equipped with a 6.5 inch (165mm) treated paper low frequency transducer (“woofer”), a 1 inch (25mm) soft dome high frequency transducer (“tweeter”), and a passive crossover/protection circuit network. The high frequency transducer shall be physically separate from the low frequency transducer and shall be bridge-mounted above the low frequency transducer. The loudspeaker shall have a ported architecture and a nominal impedance of 8 ohms. The loudspeaker shall have a coverage angle of 130° from 1kHz to 6kHz. The loudspeaker enclosure shall be constructed of formed steel and UL94V-0 fire rated plastic. The loudspeaker shall include a terminal box that shall interface with conduit having an inside diameter of either 0.5 inches (13mm) or 0.875 inches (22mm). The loudspeaker shall be equipped with a four-position, 0.2 inch (5.08mm) pluggable Euroblock connector and two RJ-45 connectors for audio signal connections. The loudspeaker shall be suitable for blind-mounting from below the ceiling and shall support a magnetically-attached grill. The loudspeaker shall have an attachment point for connection via chain or wire to building structure as a secondary support point. The loudspeaker shall include mounting points for direct attachment of a Tesira® AMP-450BP amplifier. The loudspeaker shall comply with the requirements of UL Standard 1480a and UL Standard 2043. The loudspeaker shall be UL listed, CE marked, and shall be compliant with the RoHS directive. Warranty shall be seven years. The loudspeaker shall be desono™ C-IC6.

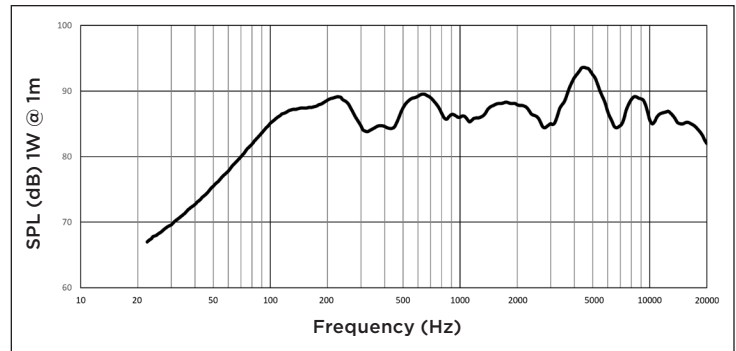
DESONO C-IC6 SPECIFICATIONS

Connectors:	4-pole Euroblock connector for two pair of parallel connections [up to 16AWG]; Two RJ-45 connectors	Operating Environment:	Designed for indoor use in climate-controlled environments
Nominal Impedance:	8Ω	Included Accessories:	C Ring Tile Bridge Paintable Metal Grill
Transducers:		Product Dimensions:	
Low Frequency:	6.5 inch (165mm) treated paper cone woofer	Overall Diameter:	11.2 inches (284mm)
High Frequency:	1 inch (25mm) soft dome bridge-mounted tweeter	Depth:	5.9 inches (151mm)
		Weight:	7.8 lbs (3.5kg)
Frequency Range (-10dB):	60Hz – 20kHz	Cutout Diameter:	9.75 inches (248mm)
Output Power Rating (3dB compression, pink noise):	60W continuous; 120W peak	Compliance:	UL and C-UL listed (USA and Canada) CE Marked (Europe) RoHS Directive (Europe) Evaluated to the requirements of UL 1480a and UL 2043 and is suitable for use in air handling spaces
Sensitivity (1W @ 1m):	87dB SPL		
Maximum SPL:	106dB		
Nominal Coverage Angle (1-6kHz):	130°		

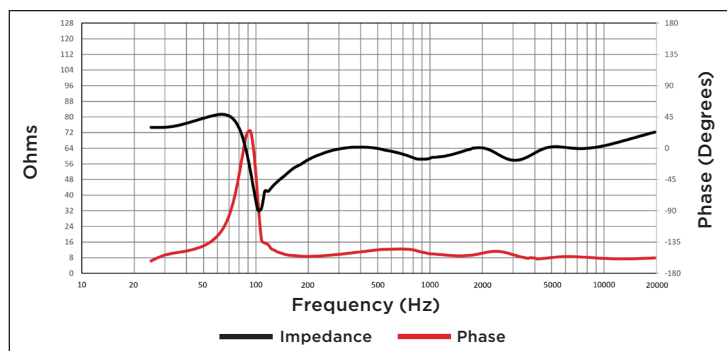
DIMENSIONS



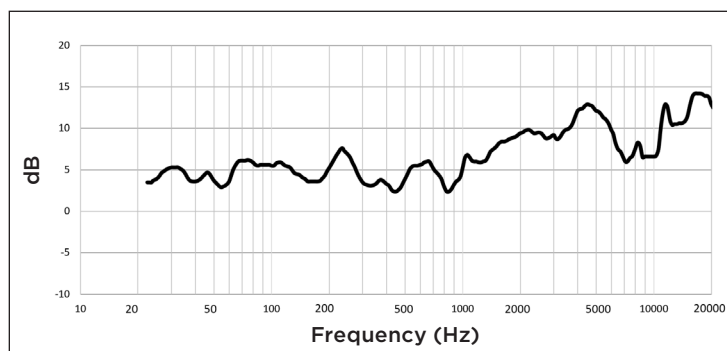
FREQUENCY RESPONSE



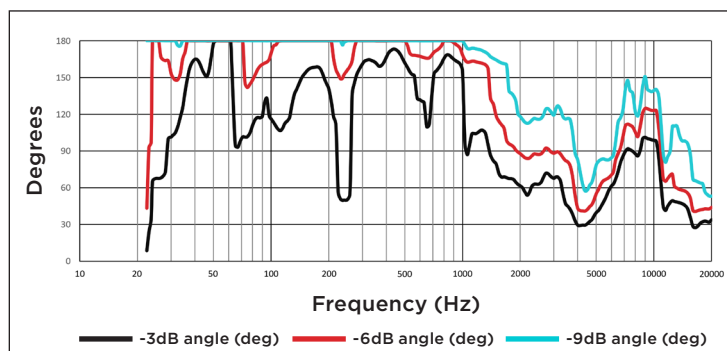
IMPEDANCE / PHASE



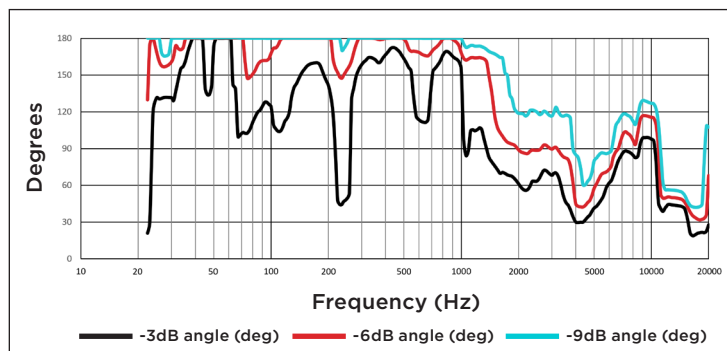
DIRECTIVITY INDEX



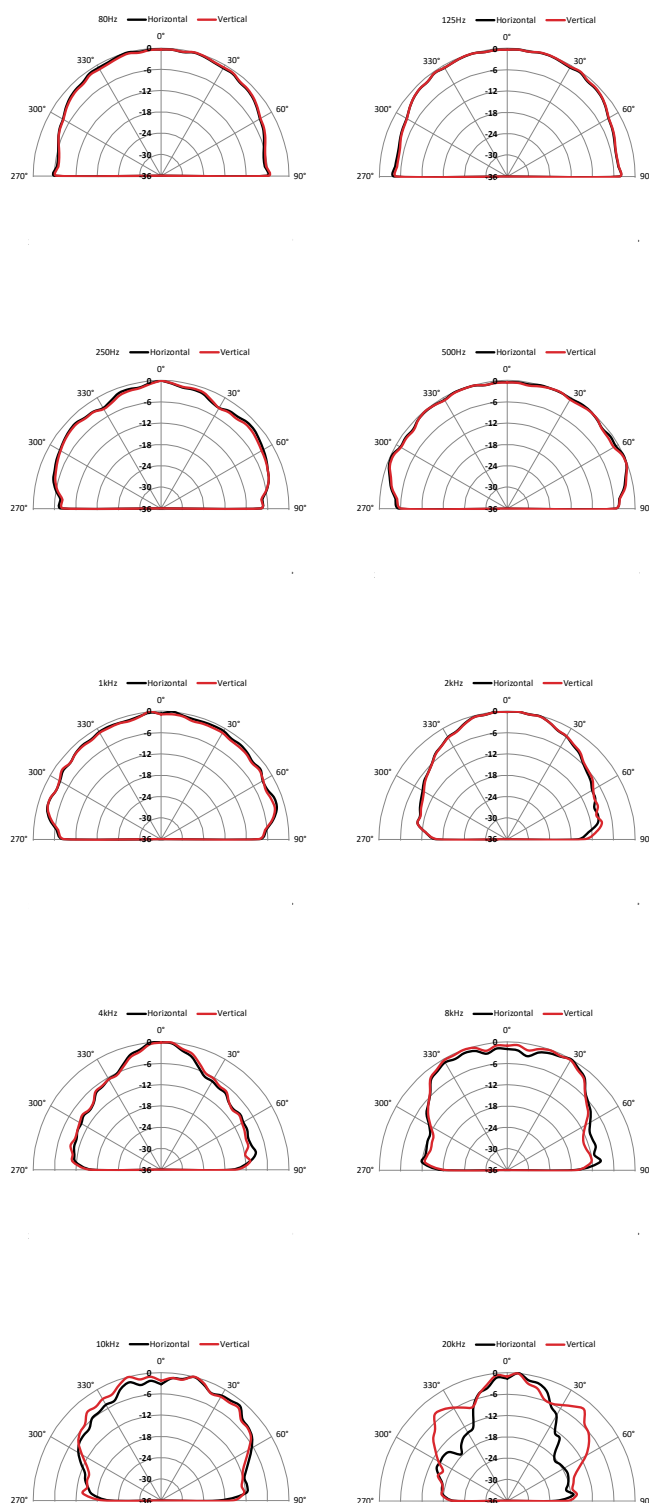
HORIZONTAL BEAMWIDTH



VERTICAL BEAMWIDTH



POLAR PLOTS



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DATA SHEET

TESIRA® AMP-450BP

4-CHANNEL POE+ CONFERENCING AMPLIFIER



The Tesira® AMP-450BP is a four-channel PoE+ (IEEE 802.3at Class 4, 30W) conferencing amplifier. The output channels are software configurable, including selectable power versus channel count. Suitable for air handling spaces, the amplifier can be located close to ceiling speakers if desired, and can even be mounted directly to the back can of a desono™ C-IC6 loudspeaker. Each AMP-450BP comes with an optional mechanical enclosure to protect electrical connections and comply with typical code requirements for above-ceiling installations. The AMP-450BP includes an internal limiter, and is capable of providing 3 watts of continuous power to all four channels. The Tesira AMP-450BP is also capable of operating in a burst mode to handle peak signals, providing up to 50 watts (4Ω load) or 30 watts (8Ω load) per channel. The amplifier serves as a dedicated endpoint in a Tesira system, making installations easier to design, support, and maintain. The AMP-450BP is ideal for TesiraFORTÉ®-equipped conference rooms or other applications where sound reinforcement is needed.

FEATURES

- Four channels; 3 watts of continuous power per channel
- Burst mode to handle peak signals in accordance with ANSI/CTA-2006-B; supports up to 50 watts (4Ω load) or 30 watts (8Ω load) per channel
- Powered by PoE+ (IEEE 802.3at Class 4, 30W)
- RJ-45 connectors enable termination-free connections to compatible speakers like the desono C-IC6
- Class D amplifier topology
- Fanless operation
- Audible locate function available on the front panel
- Includes internal limiter function
- Software-selectable power versus channel count
- Evaluated to the requirements of UL 2043 and is suitable for use in air handling spaces
- LED indicators for power and amplifier status
- Configurable via Tesira software
- CE marked, UL listed, and RoHS compliant
- Covered by Biamp Systems' five-year warranty

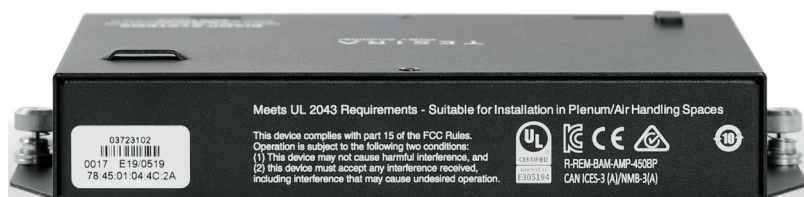
ARCHITECTS & ENGINEERS SPECIFICATION

The PoE+ conferencing amplifier shall be designed exclusively for use with Biamp® Tesira® systems. The PoE+ conferencing amplifier shall provide control data and digital audio over AVB via an RJ-45 connector. The PoE+ conferencing amplifier shall provide four software-configurable output channels of 3 watts of continuous power per channel into a 4-ohm load and an 8-ohm load. The PoE+ conferencing amplifier shall also provide burst power of 50 watts per channel into a 4-ohm load, and 30 watts per channel into an 8-ohm load in accordance with ANSI/CTA-2006-B. The PoE+ conferencing amplifier shall provide connections to loudspeakers via RJ-45 connectors. The PoE+ conferencing amplifier shall be powered by PoE+ (IEEE 802.3at Class 4) and shall be suitable for use in air handling spaces in accordance with UL 2043. The PoE+ conferencing amplifier shall be capable of being attached directly to the back can of a desono™ C-IC6 ceiling speaker. The signal processing of the PoE+ conferencing amplifier shall be configurable via the Tesira design software including, but not limited to: volume control, filters, compressor/limiting, delay, speaker equalization and output sensitivity. The PoE+ conferencing amplifier shall be CE marked, UL listed, and shall be compliant with the RoHS directive. Warranty shall be five years. The PoE+ conferencing amplifier shall be Tesira AMP-450BP.

TESIRA AMP-450BP SPECIFICATIONS

Network Connection:	Gigabit Ethernet, RJ-45 (Cat 5e and above)	Power:	PoE+ (IEEE 802.3at Class 4 , 30W)
Number of Output Channels:	4	Indicators:	Power Indicator (Green/Yellow/Red LED) Amp Status Indicator (Green/Yellow/Red LED)
Connectors:	RJ-45	Overall Dimensions:	
Amplifier Topology:	Class D	Height:	1.2 inches (30mm)
Burst Power Output (per ANSI/CTA-2006-B @ 1kHz):		Width:	7.7 inches (195mm)
4Ω (per channel):	50W	Depth:	4.7 inches (120mm)
8Ω (per channel):	30W	Weight:	1.5 lbs (0.7 kg)
Continuous Power Output:		Environmental:	
Single Channel Driven (4Ω, 8Ω):	15W	Ambient Operating	
Dual Channel Driven, (4Ω, 8Ω):	7W	Temperature Range:	32 - 104° F (0 - 40° C)
Four Channel Driven, (4Ω, 8Ω):	3W	Humidity:	0-95% relative humidity (non-condensing)
THD+N (20Hz-20kHz, at continuous power):	< 0.3%	Altitude:	0-10,000 ft (0-3000m) MSL
Frequency Response (20Hz-20kHz):	± 1dB	Compliance:	
Dynamic Range (20Hz-20kHz BW):	> 90dB		FCC Part 15B (USA)
Minimum Operational Load:	4Ω		UL and C-UL listed (USA and Canada)
Intermodulation distortion (SMPTE):	<0.3%		CE Marked (Europe)
Crosstalk (channel to channel @ 1kHz):	< -90dB		RoHS Directive (Europe)
Cooling:	Convection		Evaluated to the requirements of UL 2043 and is suitable for use in air handling spaces

TESIRA AMP-450BP BACK PANEL



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