

DATA SHEET

DESONO™

DX-IC10

TWO-WAY 10-INCH HIGH OUTPUT CEILING MOUNT LOUDSPEAKER



FEATURES

- Zoom Certified
- High intelligibility with exceptional uniform coverage
- Fast installation with SpringLock™ mounting clamps
- High output similar to typical 12" large format ceiling speakers
- Attractive edgeless magnetic grille design
- Conduit knock-outs on the input cover meet Chicago plenum air space requirements

TECHNICAL SPECIFICATIONS¹

| | | | |
|--|---|---------------------------------------|----------------------|
| Operating Mode | Passive with DSP | | |
| Operating Environment | Indoor | | |
| Operating Range (-10dB) ² | 65 Hz to 20 kHz | | |
| Nominal Beamwidth (H x V) | 115°, conical | | |
| Transducers | LF 1 x 10" (254 mm) HF 1 x 1.25" (32 mm) exit compression driver | | |
| Sensitivity ³ | 97 dB (2.83 V) | 96 dB (1 W at rated impedance 6.5 Ω) | |
| Nominal Continuous Power Handling ⁴ | Passive | 39 V (240 W @ 6.5 Ω) | |
| Nominal Maximum SPL ⁵ | Passive | Peak 125 dB | Continuous 119 dB |
| Rated Continuous Voltage ⁶ | Passive | 39.8 V (32 dBV) | |
| Rated Maximum SPL ⁷ (Processed) | Passive | Peak 131 dB | Continuous 119 dB |
| Autoformer | 70 V: 200 W, 100 W, 50 W, 25 W; 100 V: 200 W, 100 W, 50 W | | |
| Recommended Amplifiers | Passive | 240 W - 480 W into 8 Ω, (44 V - 62 V) | |
| Crossover Frequency | 1.0 kHz | | |
| Required Accessory | 75 Hz, 12 dB/oct. high pass filter | | |

APPLICATIONS

Large Conference Rooms · Houses of Worship
Theaters · Sports Facilities · Health Clubs
Convention Centers · Auditoriums
Malls · Airports · Corporate Meeting Rooms

DESCRIPTION

The flagship model Desono DX-IC10 exceeds the performance of competing "high-ceiling" models. The DX-IC10 provides high-level foreground music, loud-and-clear paging (even in noisy environments), and readily supports large systems in sports facilities, clubs, or concert venues for delay and zone fill. Compact, aordable replacement for typical 12" competitor ceiling speakers.

DX-IC10s can readily be combined with smaller members of the Desono DX family due to Biamp's uniform voicing technology, providing additional power and LF response in areas that require it. Featuring genuine coaxial design with separate magnets for the LF and HF drivers, the DX-IC10 exhibits reduced distortion and industry-leading sensitivity permitting 3 dB to 6 dB greater output level, while requiring half the amplification power of competing products.

Patent-pending SpringLock™ clamps allow single-handed placement to speed installation and reduce labor time. The SpringLock spring-loaded clamps support the back can on the included tile rails and snap-on C-ring, so that the installer can just tighten the clamps, securing it in the ceiling.

A magnetic grille and front-face wattage selector switch enables quick adjustment of tap levels, while the high-power internal autoformer permits full power output with 70V or 100V lines. A variety of installation accessories are available to accommodate different ceiling materials.

PHYSICAL

| | |
|------------------------|--|
| Input Connection | 4-position Euroblock connector |
| Controls | Front-face wattage / low impedance selector switch |
| Mounting Provisions | 4 SpringLock mounting clamps with 2.5-inch grip range |
| Certifications | ETL listed to comply with UL1480A, UL2043 and CSA62368-1 Suitable for use in air handling spaces per NFPA 70 and NFPA 90 |
| Dimensions W x D | 394 mm x 263 mm (15.51" x 10.37") |
| Weight | 10.73 kg (23.66 lbs) |
| Finish | Refer to the Technical Drawing (page 3) |
| Accessories (Included) | C-Ring supporting plate, tile support bridge rails, grille, paint mask, cut-out template |
| Model | DX-IC10-W - loudspeaker with White grille |

OPTIONS

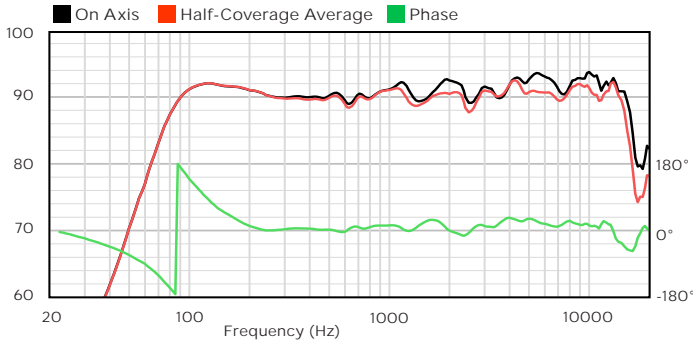
| | |
|-------------|--|
| Accessories | New Construction Brackets (SPA-NC600) Black Grilles (SPA-GRB600) High Humidity Grilles (SPA-GHH600) 48" Tile Rails (SPA-RAIL48) |
|-------------|--|

Biamp strives to improve its products on a continual basis. Specifications are therefore subject to change without notice.

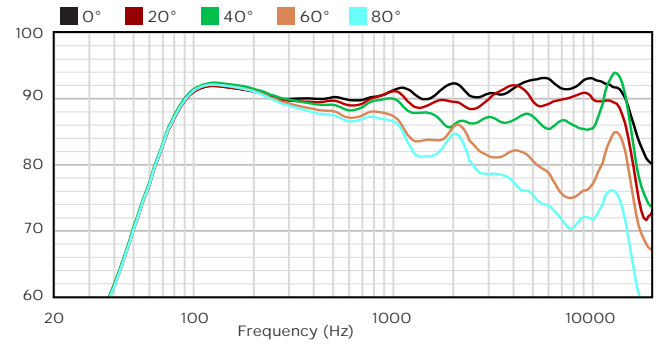
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DX-IC10 TWO-WAY 10-INCH HIGH OUTPUT CEILING MOUNT LOUDSPEAKER

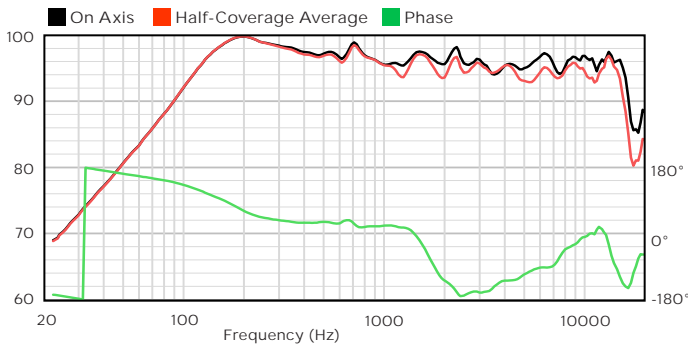
AXIAL PROCESSED SENSITIVITY (dB SPL)⁸



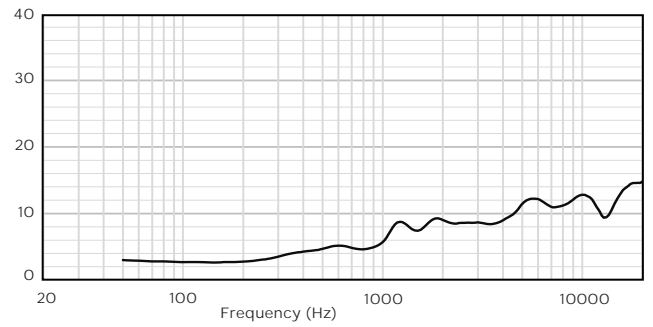
OFF-AXIS RESPONSE (dB SPL)⁹



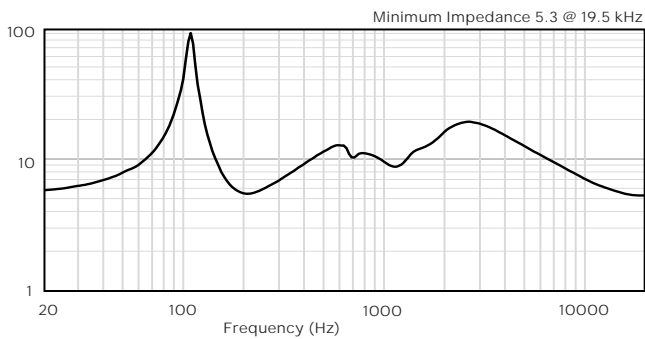
AXIAL SENSITIVITY (dB SPL)⁸



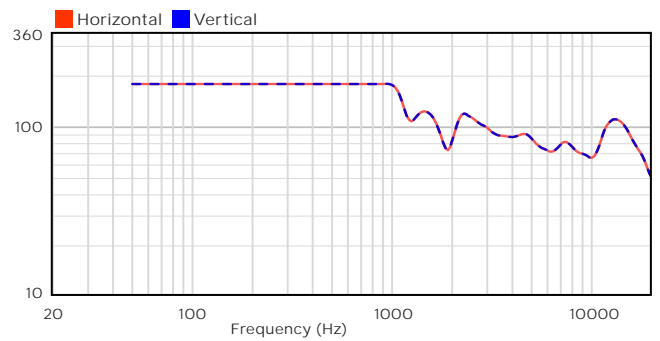
DIRECTIVITY INDEX (dB)¹⁰



IMPEDANCE (Ω)



BEAMWIDTH (degrees)¹¹



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CEILING MOUNT LOUDSPEAKER

TECHNICAL DRAWING / DIMENSIONS / FINISH

W (bezel diameter) x D

394 mm x 263 mm (15.51" x 10.37")

Cutout Diameter

360 mm (14.17")

Unit Weight

10.73 kg (23.66 lbs)

Shipping Weight (shipped in pairs)

26.65 kg (58.76 lbs)

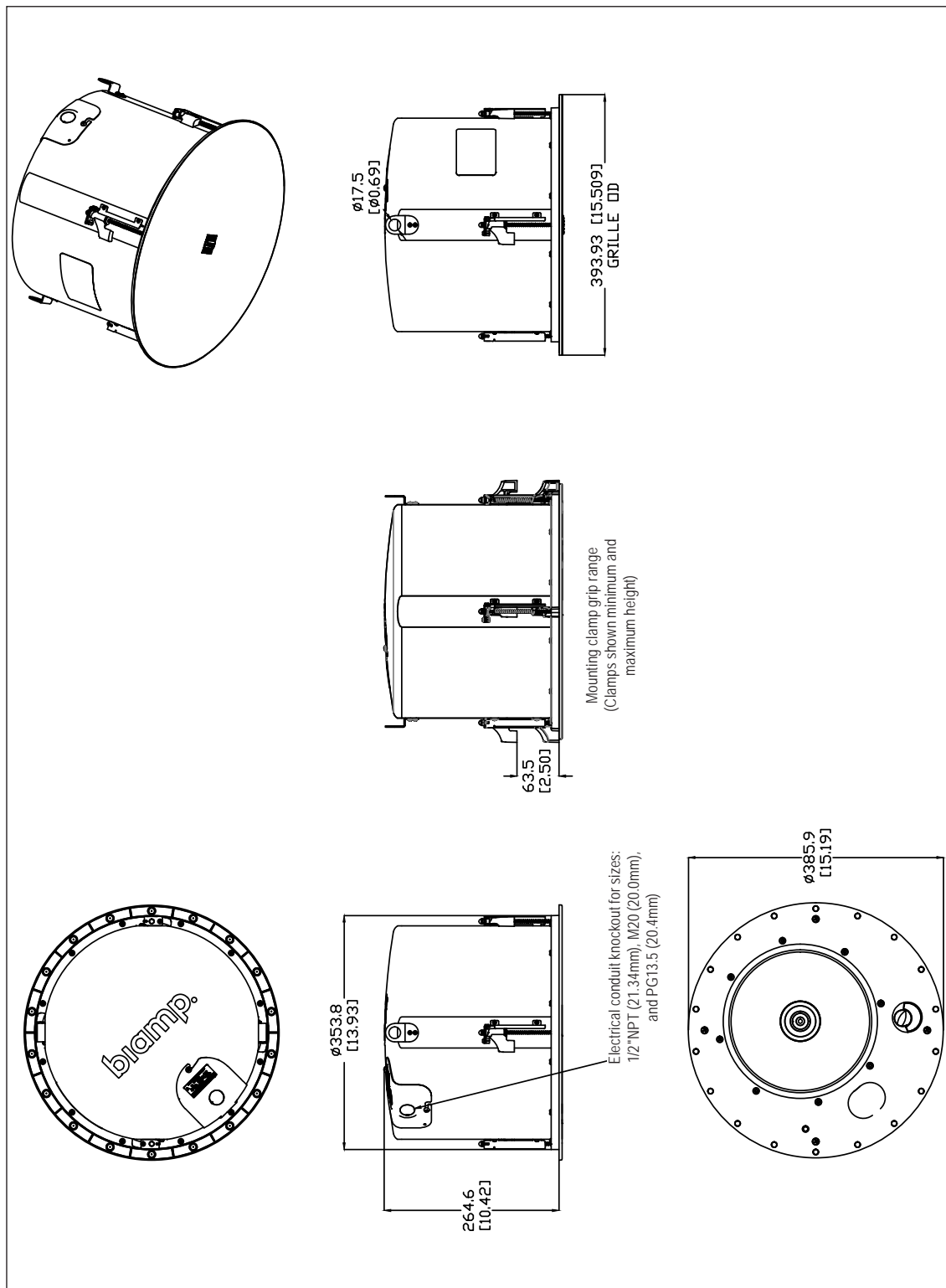
Grille:

Powder-coated perforated steel backed with color-matched woven fabric with safety line. White finish.

Enclosure / Finish

Back Can: Black, Matte finish Steel

Face: UL 94V-0 rated ABS plastic, paintable Black finish.



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A: 9300 S.W. Gemini Drive Beaverton, OR 97008 USA

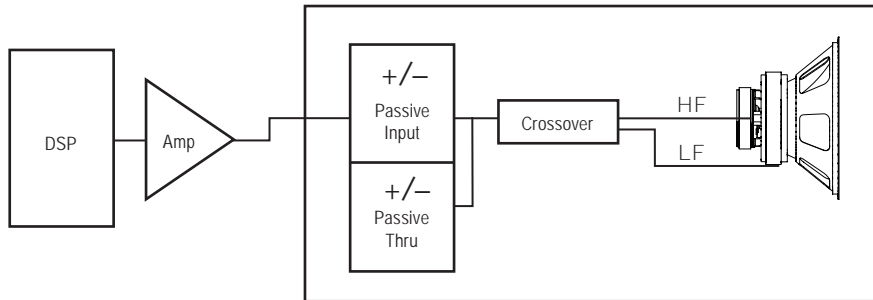
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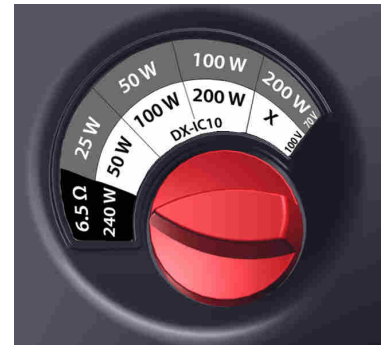
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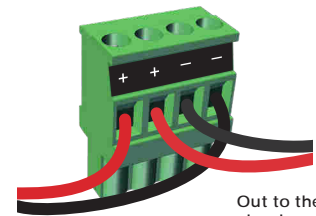
CONNECTION DIAGRAMS



Single amp



Tap Switch (on face)



In from the amplifier or previous loudspeaker, terminals 1[+] & 4[-]
Out to the next loudspeaker, terminals 2[+] & 3[-]

Input

NOTES

- 1. PERFORMANCE SPECIFICATIONS** All measurements are performed using a time-windowed impulse response to eliminate reflections, approximating an anechoic environment, at a distance of at least 6.0 m. All acoustic specifications are rounded to the nearest whole number. An external DSP using settings provided by Biamp is required to achieve the specified performance; further performance gains can be realized using the FIR loudspeaker optimization presets available in Biamp's Community Amplified Loudspeaker Controllers (ALC SERIES).
- 2. OPERATING RANGE** The frequency range over which the on-axis equalized/processed response remains within 10 dB of the rated sensitivity, in accordance with IEC 60268-5.
- 3. SENSITIVITY** The broadband SPL of the loudspeaker when pink noise is applied (band limited to the loudspeaker's Operating Range) at an input voltage of 2.83 V, in accordance with IEC 60268-5. Also listed for a voltage that would produce 1 watt into the nominal impedance. Measured in whole space with no external processing applied, except where indicated.
- 4. NOMINAL CONTINUOUS POWER HANDLING** The maximum continuous nominal input voltage at the rated impedance that the system can withstand, without damage, for a period of 2 hours using an IEC 60268-1 defined spectrum with recommended signal processing and protection filters.
- 5. NOMINAL MAXIMUM SPL** The SPL produced when an IEC 60268-1 signal is applied, at the nominal input voltage, to the equalized/processed loudspeaker system. Referenced to a distance of 1 meter. The peak SPL represents the 2:1 (6 dB) crest factor of the IEC 60268-1 test signal.
- 6. RATED CONTINUOUS VOLTAGE** The maximum continuous rated input voltage for the system that results in no more than a 3 dB change in the system's response during operation.
- 7. RATED MAXIMUM SPL** The SPL produced when a typical program material signal is applied to the equalized/processed loudspeaker system, at a level which drives at least one subsection to its rated continuous voltage limit. Referenced to a distance of 1 meter. The peak SPL represents the 4:1 (12 dB) crest factor of the program signal.
- 8. AXIAL (PROCESSED) SENSITIVITY** The variation in acoustic output level with frequency for a swept-sine measurement signal. The Processed measurement uses the recommended signal processing for the loudspeaker system. The other sensitivity measurements use no additional external processing. All data are referenced to 1 meter. The on-axis magnitude and phase responses, as well as the average magnitude response, calculated over one-half of the nominal coverage angles, are shown. The responses have 1/6 octave smoothing applied.
- 9. HORIZONTAL / VERTICAL OFF-AXIS RESPONSES** The loudspeaker's magnitude response at various off-axis angles using the recommended signal processing in the operating mode which utilizes the largest number of individually amplified pass bands. The responses have 1/3 octave smoothing applied.
- 10. DIRECTIVITY INDEX** The ratio of the on-axis SPL to the mean SPL at the same distance for all points within the measurement sphere for each given frequency; expressed in dB. The response has 1/3 octave smoothing applied.
- 11. BEAMWIDTH** The included angle between the -6 dB points in the polar response of the loudspeaker when driven in the operating mode which utilizes the largest number of individually amplified pass bands. The responses have 1/3 octave smoothing applied.

Data presented on this data sheet represents a selection of the basic performance specifications for the model. These specifications are intended to allow the user to perform a fair, straightforward evaluation and comparison with other loudspeaker spec sheets. For a detailed analysis of this loudspeaker's performance, please download the GLL file and/or the CLF file from our website: www.biamp.com