

ZX1i

ZX1i Series
8-Inch Two-Way
Indoor/Outdoor Install
Loudspeaker System



Key Features:

- **Integrated QuickSAM™ Heavy-Duty Strong-Arm Mounting Bracket Included**
- **Indoor/Outdoor Design - Meets IEC 529, IP44 & MIL810 Environmental Specs**
- **ASC™ Automatic Saturation Compensation**
- **EV8L 8" Weatherized Cone High-Output LF Transducer**
- **DH2005 1" Exit True Compression Driver**
- **90° x 50° or 100° x 100° Coverage Patterns**
- **Rotatable Horn Design**
- **200W Continuous, 800W Peak Power Handling**
- **High Sensitivity, 123 dB Maximum SPL**

General Description:

The Electro-Voice® ZX1i is the new standard of no compromise audio performance and versatility in an easy to install, compact sound reinforcement package.

The high-tech enclosure uses injection-molded high-impact polypropylene to make the ZX1i extremely durable. The enclosure geometry has been engineered to provide maximum rigidity and acoustic performance. The velocity compensated port design overcomes the limitation of many small cabinet loudspeakers and enables exceptional low-frequency response without vent noise.

ZX1i installation is incredibly simple with the included QuickSAM™ mounting system. The QuickSAM™ is a unique, integrated mounting bracket which is virtually foolproof. It allows the installer to simply snap the speaker onto the bracket, then tighten it to the desired position. For array mounting, there is an optional array bracket kit available which allows multiple units to be mounted together for a variety of configurations.

Zx1i uses a special circuit that when in transformer mode the network re-configures itself to a current actuated Hi-Pass filter at the transformer primary. It gently rolls off the lowest frequencies to maintain a safe load on the amplifier without affecting the higher (vocal) frequencies and the program continues without interruption. Low frequency current is limited through the transformer eliminating low frequency saturation. Automatic Saturation Compensation allows many speakers to be run on a distributed line with a 50Hz Hi-Pass filter before the amplifier, regardless of the number of speakers on the same line (the number of tapped watts cannot exceed the amplifier rating). With the same 50Hz Hi-Pass, 10 speakers on transformers will have the same full sound as a single speaker at 8 ohms.

Two coverage patterns are available; 90° x 50° coverage for longer throw and cluster applications, 100° x 100° coverage for broad even dispersion needed in many distributed audio applications. An added benefit is horn rotation, allowing the ZX1i to be oriented either horizontally or vertically for complete coverage flexibility.

The ZX1i molded polymer enclosure is inherently water resistant. The addition of a multilayer grille with hydrophobic cloth and weatherized components enable the ZX1i to perform under many environmental conditions. An optional weatherized input panel cover with a gland nut is available for additional protection.

The ZX1i's long excursion, high output 8" woofer with a weatherized treated cone delivers smooth low-frequency performance with exceptional reliability. A sophisticated crossover network integrates it with the DH2005, a 1.25" voice coil true compression driver for maximum output with extended frequency response. Full-bandwidth overload protection is provided for reliable, long term operation without audible effect.



Technical Specifications:

Freq. Response ¹ (-3 dB):	60 Hz - 20 kHz
Freq. Range ¹ (-10 dB):	48 Hz - 20 kHz
Rec. Hipass Frequency:	40 Hz
Axial Sensitivity ¹ (90°):	94 dB (1W/1m)
(100°):	92 dB (1W/1m)
Max Calculated SPL (90°):	123 dB
(100°):	121 dB
Horizontal Coverage:	90° or 100°
Vertical Coverage:	50° or 100°
Enclosure Rotation:	+/-35°
Enclosure Sweep:	+/-45°
Rated System Power:	200W Cont. ² , 400W Prog., 800W Peak
LF Transducer:	EV8L, 8 in (203mm) Driver
HF Transducer:	DH2005, 1 in. (25.4mm) Exit Compression Driver
Crossover Frequency:	1.7 kHz
Nominal Impedance:	8 Ohms
Minimum Impedance:	6 Ohms
"T" Version Wattage Taps:	70V - 6, 12.5, 25, 50, 100, 8 Ohm bypass 100V - 12.5, 25, 50, 100, 8 Ohm bypass
Connectors:	4-Pin Phoenix Connector
Enclosure Material:	High Impact Polymer
Suspension:	Integrated QuickSAM™ Heavy-Duty Strong-Arm Mounting Bracket
Grille:	Polyester Powder Coated, 18GA Galvanized Steel
Dim (H x W x D):	451mm x 282mm x 263mm (17.75" x 11.12" x 10.35")
Net Weight:	8.4 kg (18.5 lbs) without Transformer 10.4 kg (23.0 lbs) with Transformer
Shipping Weight:	10.2 kg (22.5 lbs) without Transformer 12.3 kg (27.0 lbs) with Transformer

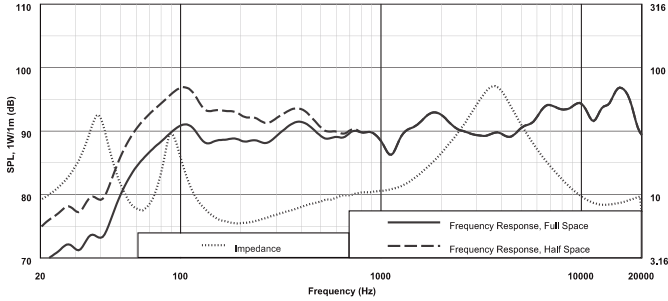
¹ Half Space Measurement.

² IEC Pink Noise, 6 dB Crest Factor.

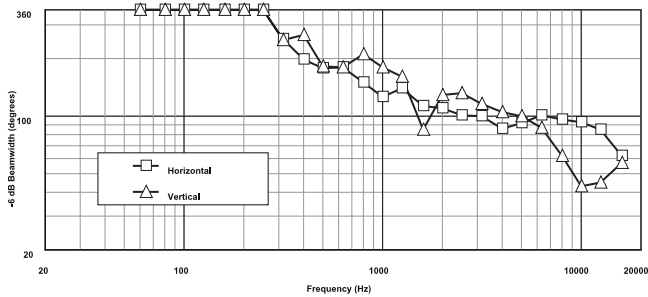
ZX1i Series Full Range Loudspeaker

ZX1i-90

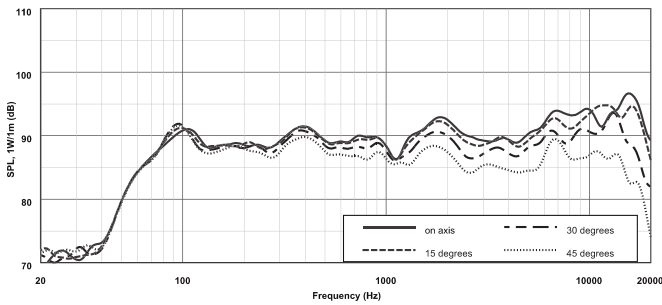
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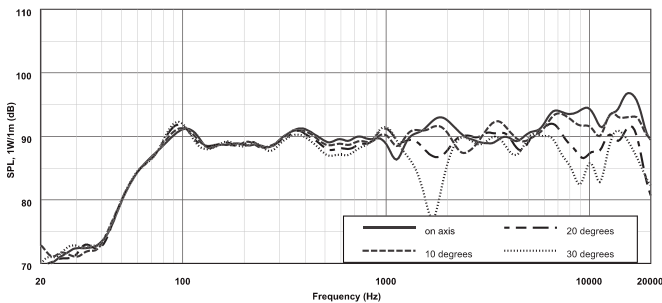
Beamwidth:



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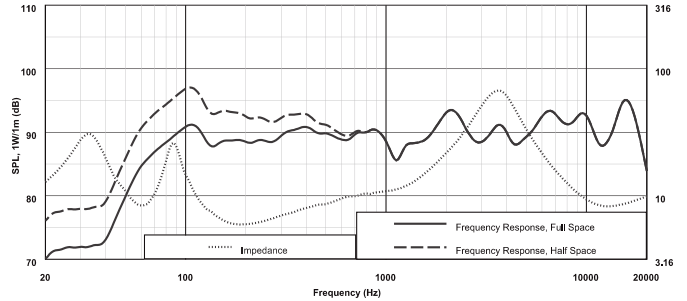


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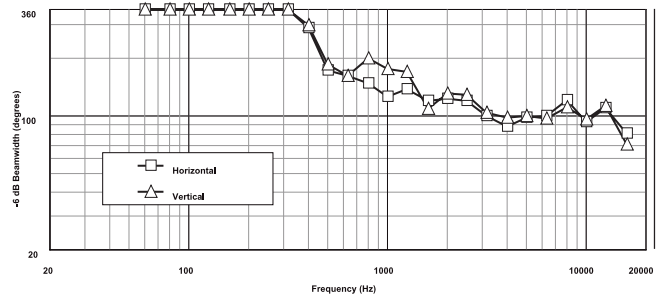


ZX1i-100

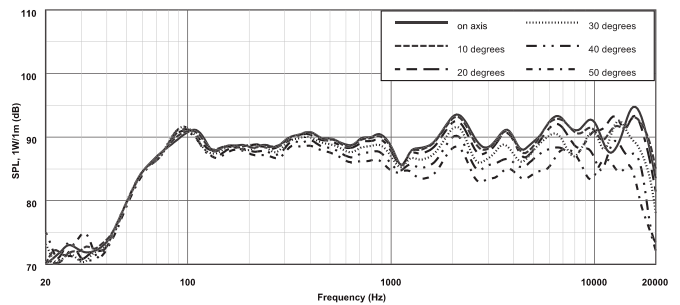
Frequency Response & Impedance:



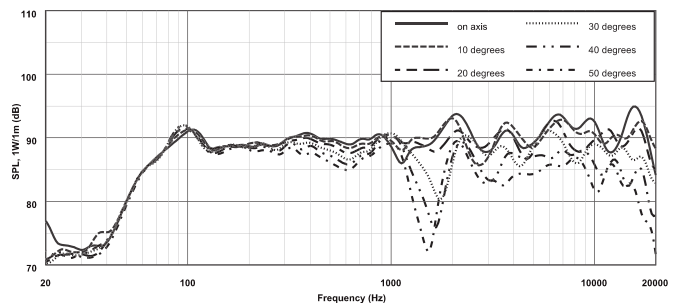
Beamwidth:



Horizontal Off Axis Frequency Response:



Vertical Off Axis Frequency Response:

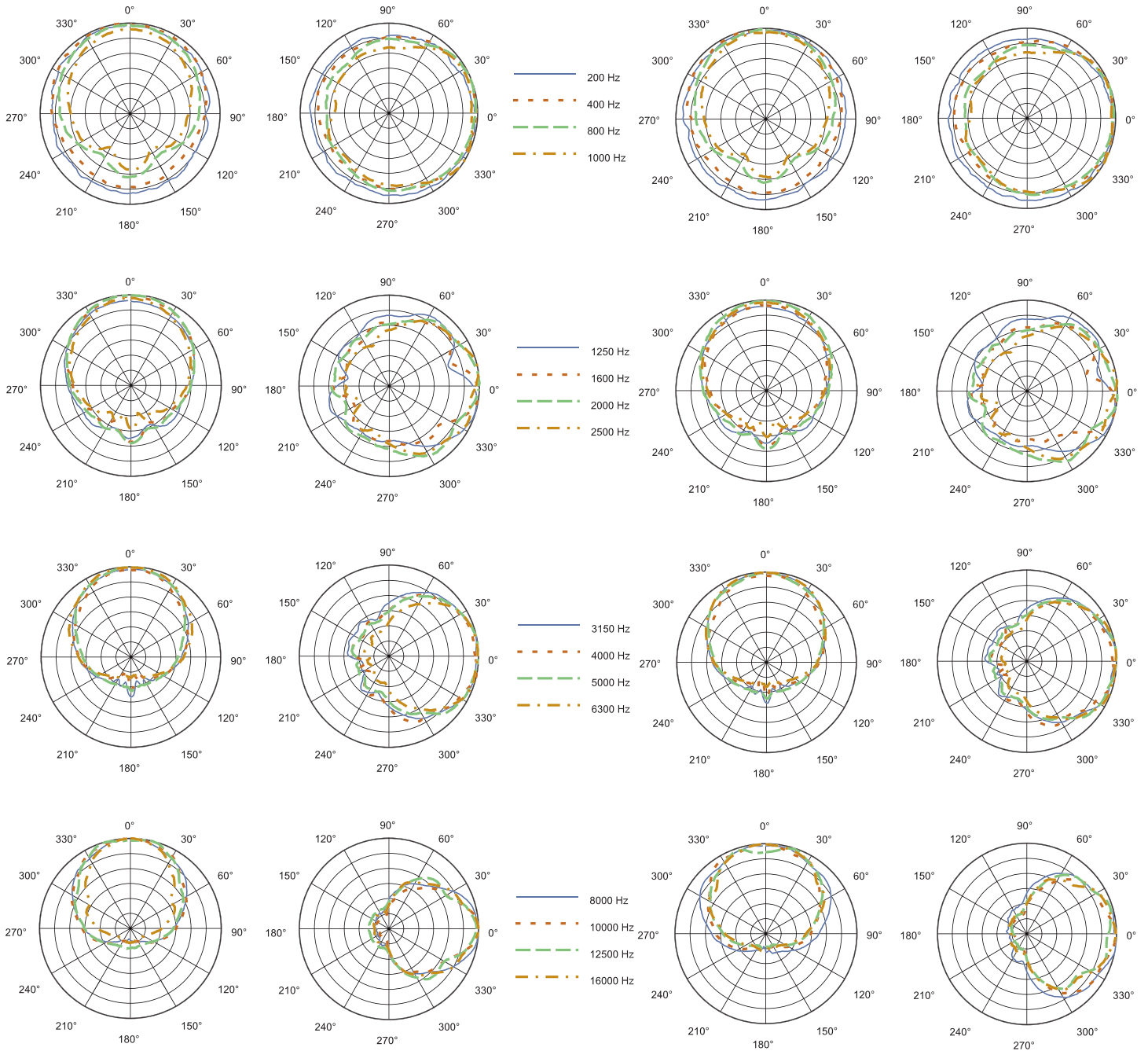


Horizontal 1/3 Octave Polars, ZX1i-90:

Vertical 1/3 Octave Polars, ZX1i-90:

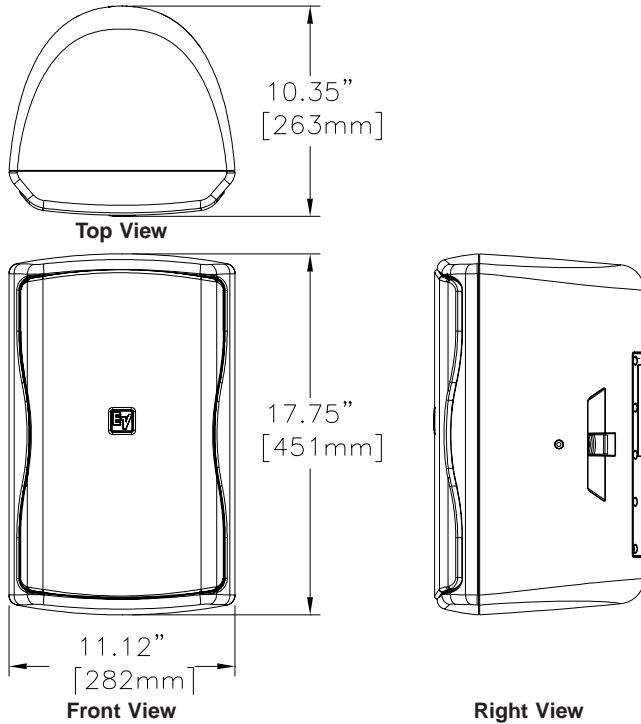
Horizontal 1/3 Octave Polars, ZX1i-100:

Vertical 1/3 Octave Polars, ZX1i-100:



Graph scales are 6 dB per division

Dimension Drawings:



Architectural and Engineering Specs:

The loudspeaker shall be a two-way system consisting of one 8" (102mm) low-frequency transducer, a 1.25" titanium diaphragm true high frequency compression driver with rotatable horn and a frequency dividing network installed in a vented enclosure. The network shall include a full range passive limiter for total system protection. The high frequency compression transducer shall drive a horn to evenly cover a pattern of either 90° by 50° or 100° by 100°. The horn shall be rotatable to allow for horizontal or vertical mounting of the cabinet. The enclosure shall be molded of high impact polystyrene.

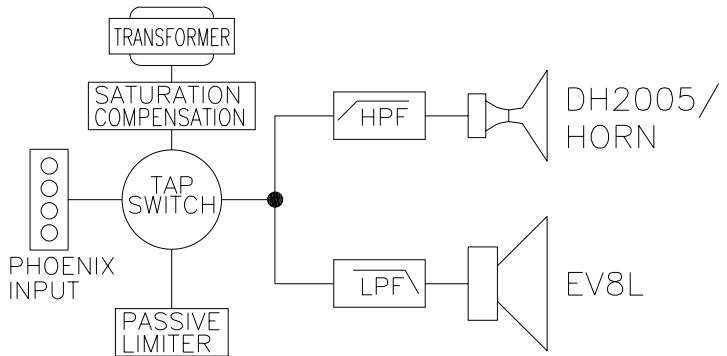
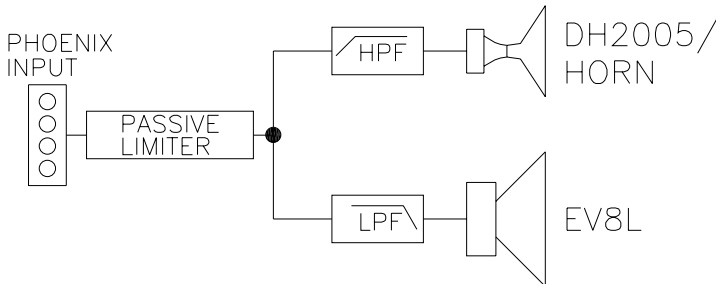
The finish shall be a paintable black or white. The grille shall be zinc plated, powder coated for corrosion resistance, and equipped with both hydrophobic cloth and acoustic foam. The loudspeaker position shall be adjustable over a range of 100° horizontally and 45° vertically.

The support bracket shall be low profile and integral with the enclosure. The bracket shall allow for a quick snap fit mounting of the speaker enclosure for placement before securing. The speaker terminals shall include a 4 pin removable phoenix style connector to allow for signal pass through. The system shall be weather resistant to MIL Spec 810 and IEC 529 test conditions.

The loudspeaker shall be available with a 100w transformer for 70 or 100v operation. The speaker shall have ASC™ for protection against transformer saturation overload. There shall also be an 8 ohm bypass position on the wattage selector switch to enable 8 ohm operation from these models.

The loudspeaker system shall meet the following performance criteria: Power handling, 200-Watts long term program using IEC268-5 shaped pink noise; Frequency response, 48 Hz – 20 kHz (-10 dB from rated sensitivity); Pressure sensitivity, 94 dB at one watt, 60 Hz – 20 kHz at one meter; Impedance, 8 ohms nominal, 6 ohms minimum. The enclosure shall be 17.75" (451mm) high, 11.12" (282mm) wide, 10.35" (263mm) deep. Net weight shall be 18.5 lbs (8.4 kg) for non-transformer versions and 23.0 lbs (10.4 kg) for transformer versions.

Block Diagrams:



ZX1i (Non-Transformer) and ZX1i (With Transformer) in 8 Ohm Mode

ZX1i (With Transformer)



This ZX1i Loudspeaker should be suspended overhead only in accordance with the procedures and limitations specified in the *ZX1 Users Manual* and possible manual update notices. This system should be suspended with certified rigging hardware by an authorized rigging professional and in compliance with local, state, and federal overhead suspension ordinances.

ZX1i Part Numbers

- 301851-001 - ZX1i-90, 90° x 50° Horn, Black Finish
- 301851-002 - ZX1i-90W, 90° x 50° Horn, White Finish
- 301851-003 - ZX1i-100, 100° x 100° Horn, Black Finish
- 301851-004 - ZX1i-100W, 100° x 100° Horn, White Finish
- 301852-001 - ZX1i-100T, 100° x 100° Horn, Black Finish, Transformer
- 301852-002 - ZX1i-100TW, 100° x 100° Horn, White Finish, Transformer
- 301852-003 - ZX1i-90T, 90° x 50° Horn, Black Finish, Transformer
- 301852-004 - ZX1i-90TW, 90° x 50° Horn, White Finish, Transformer

Performance Match

- D170180 CPS2T, 120V Power Amplifier, 2 x 600W
- D170261 CPS2.8, 120V Power Amplifier, 2 x 800W

Accessories

- 301918-001 AB-ZE, Array Bracket Kit for 2 or 4 ZX1i or EVID Systems, Black
- 301955-001 TC-ZX1i, Terminal Cover with Gland Nut



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