# AX2010P

Dual 10" (260mm)
High Output
Vertical Array Element

## KEY FEATURES

- High output Line Array element
- Compact size, very good output-to-weight ratio
- High quality, low compression, low distortion HF driver
- Very stable horizontal coverage
- Transmission Line back loading for clean mid-bass reproduction
- Natural sound Transmission Line HF projection wave-forming device

## APPLICATIONS

The **AX2010** Vertical Line Array element is designed for a wide range of sound reinforcement applications where a flexible and easy to use vertical array systems is needed.

## THE AX2010P LINE ARRAY MODULE

The **AX2010P** is a new line array element in the AXIOM range that combines superior sound quality with easiness and flexibility in a simple system with a very convenient price-to-performance ratio.
The **AX2010P** has been designed both for rental live sound applications and for fixed installations and has been engineered for the simplest use possible but without sacrificing anything in sound quality and performance.

## SYSTEM SPECIFICATIONS

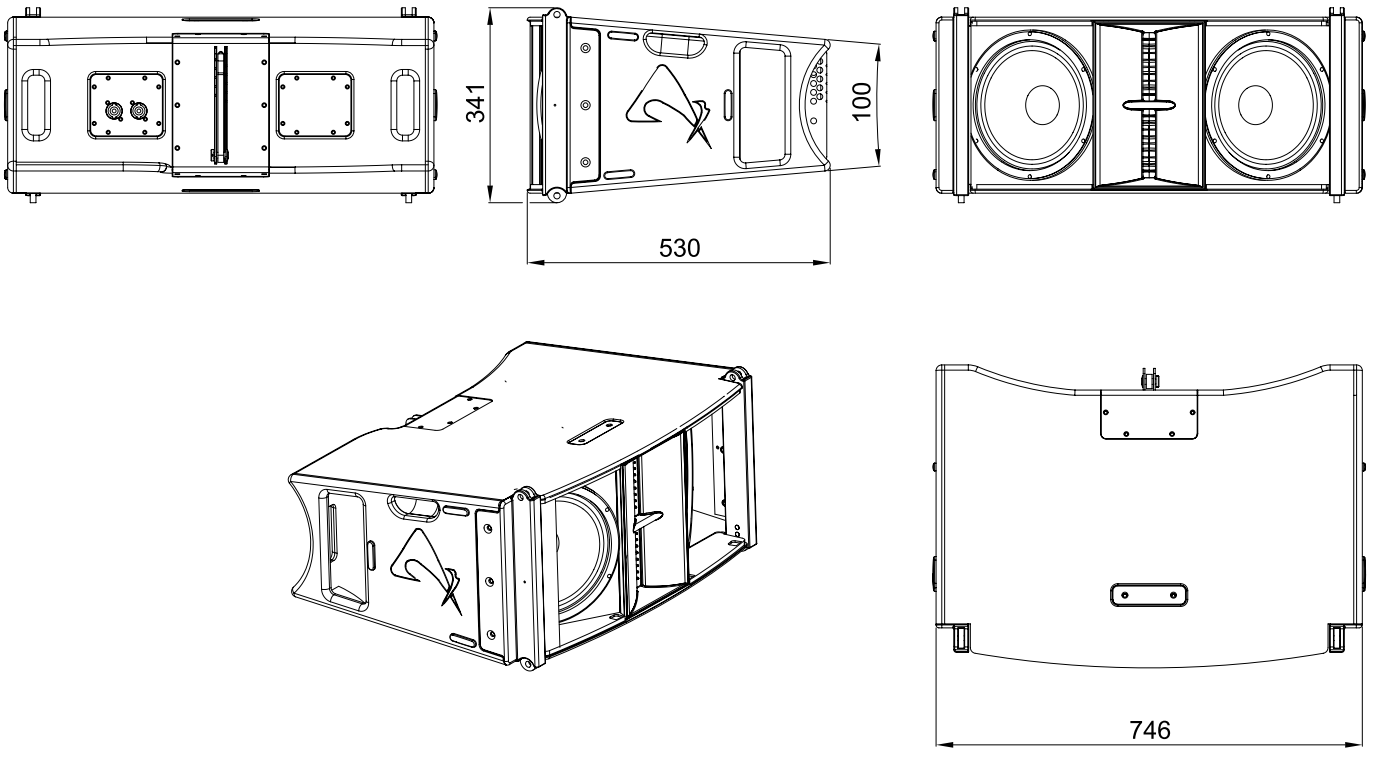
| | |
|---|---|
| **SYSTEM** | |
| Frequency Response (±3dB) | 75 Hz – 18kHz Processed |
| Nominal Impedance | 8Ω (LF) + 8Ω (HF) |
| Minimum Impedance | 7.5Ω@ 300Hz (LF); 7Ω@2.5kHz (HF) |
| Sensitivity (2.83V @ 1m, 2Pi) | 99dBSPL (LF); 108dBSPL (HF) |
| Maximum Peak SPL @ 1m | 130 dB |
| System's Acoustic Principle | Transmission Line back loading and Transmission Line HF Waveguide High Directivity Line Array Element |
| **Transducers** | |
| LF | Two 10"(260mm), 2.5"(64mm) aluminum voice voil, 16Ω each, paralleled |
| HF | Two 1.4" drivers, 2.5"(64mm) edgewound voice coil, titanium diaphragm, 16Ω each, paralleled |
| **Input Connections** | |
| Connector Type | Neutrik® Speakon® NL4 x 2 |
| Input Wiring | LF = Pin 1+/-; HF = Pin 2+/-) |
| **POWER HANDLING CAPABILITY** | |
| Continuous AES Pink Noise Power | 700W + 150W |
| Program Power | 1400W + 300W |
| LF Power Compression | |
| @ -10dB Power (70W) | 0.5dB |
| @ -3dB Power (350W) | 1.5dB |
| @ 0dB Power (700W) | 3.2dB |
| **ENCLOSURE & CONSTRUCTION** | |
| **Physical Dimensions** | |
| Width | 746 mm (29.37") |
| Heigth | 341 mm (13.42") |
| Depth | 530 mm (20.86") |
| Enclosure Material | 15mm, reinforced Phenolic Birch |
| Paint | High resistance, water based paint |
| **Suspension system** | |
| Front Suspension | Aluminum Fast Link structure |
| Back Suspension | High Strength Steel with ¼ Fast Pin |
| Net Weight | 39.9 Kg (87.96 lbs.) rigging included |

## TRANSDUCERS

The high frequency range is reproduced by two low-distortion compression drivers, equipped with very light-weight diaphragms. Two transmission line wave-forming waveguides have been used to load the HF drivers, in order to provide a detailed and natural sound and to achieve a long-distance HF projecting capacity.
The two 10" woofers employed in the reproduction of the mid-bass range are equipped with very light-weight cones. The lightness of the diaphragm is furthermore improved by the use of aluminum voice coil instead of conventional copper. This ensure a fast reproduction of the mid range and of mid-bass musical passages, improving also the thermal capacity of the voice coil and, consequently, controlling the overall power compression. The two 10" woofers are back loaded by a short hybrid transmission line that minimizes the effect of the box resonances and eliminates the "boxy" mid-bass sound commonly obtained from regular bass-reflex enclosures.

## SYSTEM CONCEPT AND SONIC PERFORMANCES

The **AX2010P** offers a simple but innovative design in line array elements. The simple concept of the WTW symmetrical design is implemented in an effective way in order to minimize the effects of potential beaming phenomena around the crossover frequency.
In order to minimize these effects, many different details have been carefully engineered, the first of them being the choice of the HF driver units. The special light-weight diaphragm used in these drivers features a very low mechanical resonance, thus allowing a relatively low crossover frequency point that is placed in the 900Hz range.
Moreover, the orientation of the two woofers allows to minimize the interference effect between them, while the use of a mechanical-acoustic polyurethane filter represents a further help in minimizing the midrange beaming.
The crossover filter approach is based on a "Constant Power" technique. Thanks to a particular phase combination between the two ways around the crossover frequency, this approach is able to provide a very stable horizontal coverage and a very stable off-axys sound image, also minimizing unwanted effects around the crossover frequency. The further application of phase linearization techniques, combined to constant power crossover, yield a linear phase response and a coherent time response. This allows for a natural perception of acoustic instruments and voices and for an improved depth of the sound image.

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