

GAE WaveLine *PT*

The GAE WaveLine *PT* line-array system represents the result of an intensive physical and economic investigation into the market necessities in the field of touring and installation. Developed and based on the experience of other users and consultants a huge variety of approaches has been considered. The essence of these reflections builds special options for the development and – designing the WaveLine *PT* System – has been put into practice:



In respect to the special demands of installation the appearance was designed understated and reluctant, mechanical parts were reduced to a minimum. Special editions without handles or special colours are possible.



In addition the systems was designed for small cluster entities to provide a precise sound reinforcement in complex acoustical and constructional environments.

The combination of two 6,5" Neodymium transducers of the low-/mid range, each incorporating an 1,5" voice coil, allows a low crossover frequency. This way the Waveline *PT* System is suitable for full range use in special applications.



The GAE *HF-Phase-EQ* coupled to a high power 1,4" Neodymium-driver achieves an accurate and highly exact sound conduction in the high-tone range, which results in an extended high frequency bandwidth.

GAE WaveLine *PT*

The construction determines an extremely low crossover frequency to the compression driver which optimizes the horizontal dispersion of the system. Because of the high radiation-resistance the overall system comes up with an outstanding mid-tone performance. As the double-6,5"-construction enables a low tuning frequency, a smooth transition to a subwoofer is guaranteed.

Beyond that the WaveLine *PT* System displays an enormous efficiency in full range application. Most venues will not benefit from a flown bass system. For special applications (no bass extension can be placed on the ground) an optional sublow system (WaveLine *PT* Bass) is available to be flown within the rigging.

Deduced from the experiences made with the twin-coaxial principle used with the GAE WaveLine an exact symmetric dispersion could be established in the WaveLine *PT* System. From the acoustical experiences based on the WaveLine system the dynamics concept could be proven. As a result the development leads to a down scaled system, maintaining the same conceptual approach.

The overall construction is left/right symmetric, thus a concise utilization for the user and fitter results.

Furthermore the development aimed at the realization of an economic array-length-/prize-proportion. To reach this goal each WaveLine *PT* element has been outfitted with a nominal impedance of 16 ohms in the high- as well as in the low-/mid-tone range, thus three to six elements can be operated at one amplifier. In this way by the help of only three elements and one amplifier a vertical angle of 30° can be achieved as minimal configuration.

By employing modern system controllers the peripheral electronics equipment can be limited to a sensible measure.

Users already owning a GAE WaveLine System can easily make use of the WaveLine *PT* System as the preexisting amp-racks can be operated compatibly. Furthermore doubled impedance precedes to doubled quantity of units driven by the same amplification.



GAE WaveLine PT

For flying mechanics only high quality and determinate materials are applied. The load distribution is forwarded solely in the flight elements. Apart from locking quick release pins no bulk parts are needed.

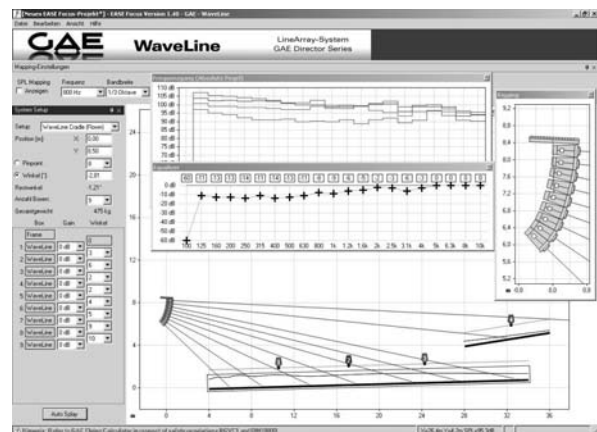


The very discreet flying mechanic is let in the loudspeaker's enclosure without attracting attention. On request the handles on the front can be removed. The whole process of mounting- and demounting has been optimally matched to all user's demands.

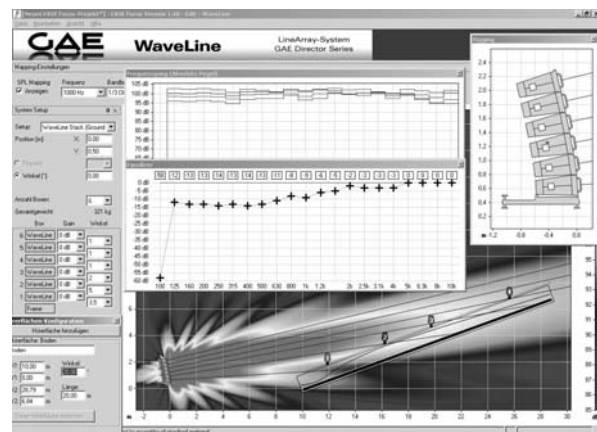
GAE WaveLine PT System's rigging mechanics together with the flying-cradle are certified according to Germans BGV-C1 and DIN 18800. An analysis of strength shows a general application of 15 units at any inclination of the flying cradle. Higher quantities and weight loads (i.e. for fixed installations) can be verified from a simple chart.

The stack-cradle together with the attached outriggers enable the mounting of up to 6 WaveLine elements as ground-stacking. The frame of the stack-cradle can be mounted to several bass units and enables a secure mounting of 6 WaveLine PT elements. An integrated stand flange offers the possibility to mount 3 elements on a rugged extension.

For simulation and calculating of acoustical configurations GAE provides the EASE Focus Aiming Software from SDA (Software Design Ahnert GmbH) again. The EASE Focus Aiming Software is a two-dimensional acoustic simulation software that serves for the configuration and modelling of Line-Arrays close to reality.



Ease Focus and the specific product file (GAE-WaveLine.efo) are available as free download from GAE's web-site.



GAE WaveLine *PT* Bass

GAE's WaveLine *PT* Bass is a high power subwoofer system, equipped with a 12" high performance sub low loudspeaker, equipped with a 4" voice coil and an extremely heavy-duty Neodymium engine. The system captivates with high efficiency within it's extended low frequency range, which was achieved by a very special tunnel geometry. In this way the system features a remarkable low frequency efficiency/housing dimension ratio. The system offers a high dynamic behaviour, generated by using a significantly adjusted parameter's loudspeaker with high magnetic flux.

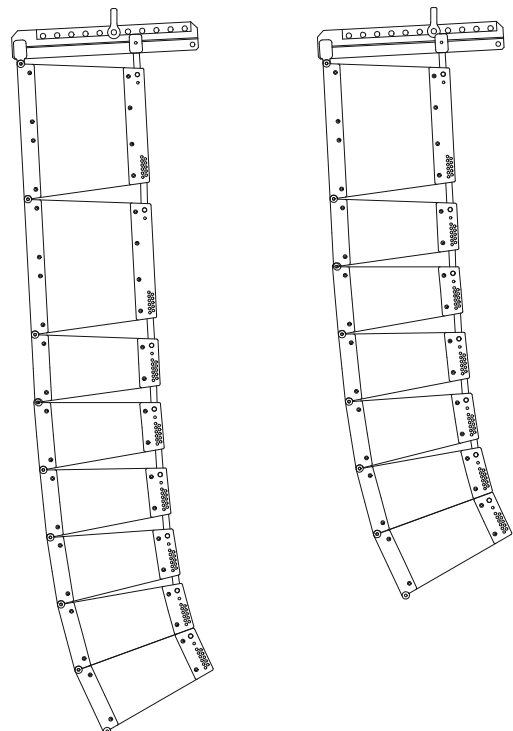


The WaveLine *PT* Bass can be combined as top flown element with WaveLine *PT* elements within a line, as well as a separate and parallel hung bass-line with a couple of *PT* Bass systems. Used with the stack cradle the *PT* Bass serves as basic element at the bottom of the line.

The impedance of 8 ohms enables a parallel operating of 3 WaveLine *PT* Bass systems at one channel of a modern high power amplifier.

The system is designed to be operated by a standard configurational third path of a 3-way system, also parallel driven to a standard bass ground support. No special equalization is necessary, thus a simple parallel combination with all of GAE's BR-types is possible.

The very discreet flying mechanism is housed in the loudspeaker's enclosure without attracting attention. On request the handles on the front can be removed. The shape relates just to 2 elements WaveLine *PT*. Special editions without handles or special colours i.e. for fixed installations are possible.



GAE WaveLine PT / GAE WaveLine PT Bass

Technical Specifications GAE WaveLine PT

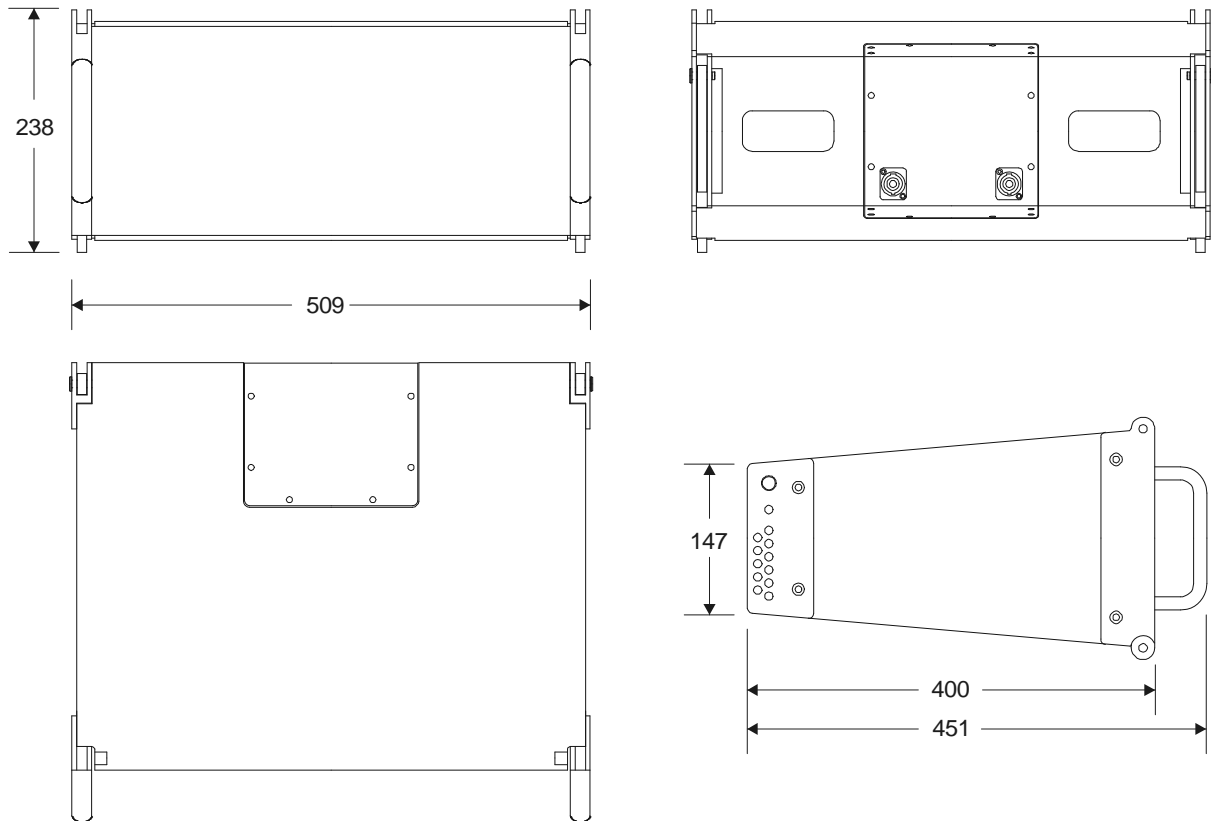
| | |
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| Type | 2-way full-range twincoaxial line-array-system, vented/hornloaded |
| Frequency response | 80 Hz – 18 kHz, +/- 3 dB |
| Power handling capacity | LMF 300 W, HF 70 W IEC norm 268-5 |
| Impedance | LMF 16 ohms, HF 16 ohms |
| Recommended input power | LMF 750 – 1500 W into 8 ohms, HF 200 – 480 W into 8 ohms |
| Dispersion | horizontal 110° symmetrical; vertical 0°...10° defined by array adjustment |
| Sensitivity | LMF 97dB (1W / 1m), HF 110 dB (1W / 1m) |
| Peak SPL (1m) | single enclosure > 127 dB |
| Components | 2x 6,5" N/Dym, 1,5" voice coil, water-resistant; 1x 1,4" N/Dym compression driver on GAE HF-Phase-EQ |
| Connectors | 2 x NL4MP Neutrik Speakon |
| Rigging/Fittings | GAE flyware, completely integrated; 2 handling recesses at the back; 2 aluminium handles at the front |
| Enclosure | multi-layered ply 15mm enclosure |
| Sealing | polyurea varnish, non-abrasive |
| Colours | standard black, equivalent to RAL9005, other colours (only in polyurethane sealing) on request |
| Front protection | Solid front grill with stylish frontcover |
| Weight | WaveLine-PT-element: 14,7kgs |
| Dimensions | Overall dimensions 238/147 x 509 x 451 (mm), H(front/back) x W x D; Housing without handles/flyware 215/147 x 509 x 400 (mm), H x W x D |
| Subwoofer | GAE BR115; BR215; BR118; BR218 |
| System Controller | Setup settings for modern digital controllers |
| Optional accessories | Flying-cradle, Stack-cradle, Touring Cases, Software |

Technical Specifications GAE WaveLine PT Bass

| | |
|-------------------------|--|
| Type | Vented subwoofer enclosure |
| Frequency response | 45 Hz – 250 Hz, – 3 dB |
| Power handling capacity | 700 W IEC norm 268-5 |
| Impedance | 8 ohms |
| Recommended input power | 750 – 1500 W into 8 ohms |
| Dispersion | Omnidirectional |
| Sensitivity | 91,5dB (1W / 1m) |
| Peak SPL (1m) | single enclosure > 123 dB |
| Components | 1x 12" N/Dym, 4" voice coil, water-resistant |
| Connectors | 2x NL4MP Neutrik Speakon |
| Rigging/Fittings | GAE flyware, completely integrated; 2 handling recesses at the back; 4 aluminium handles at the front |
| Enclosure | multi-layered ply 15mm enclosure |
| Sealing | polyurea varnish, non-abrasive |
| Colours | standard black, equivalent to RAL9005, other colours (only in polyurethane sealing) on request |
| Front protection | solid steel front grill with stylish frontcover |
| Weight | 23,9kgs |
| Dimensions | Overall dimensions 454/362 x 509 x 451 (mm), H(front/back) x W x D; Housing without handles/flyware 431/362 x 509 x 400 (mm), H x W x D |
| System Controller | Setup settings for modern digital controllers |
| Optional accessories | Flying-cradle, Stack-cradle, Touring Cases, Software |

GAE WaveLine PT

Technical drawings GAE WaveLine PT



Recommended plugs: Neutrik Speakon Type NLT 4 FX.
 Length of link cable between 2 WaveLine-elements: 45cm
 Recommended cable: H07RN-F 4x2,5mm² / www.schulz-kabel.de.

Recommended subwoofer:



GAE BR115

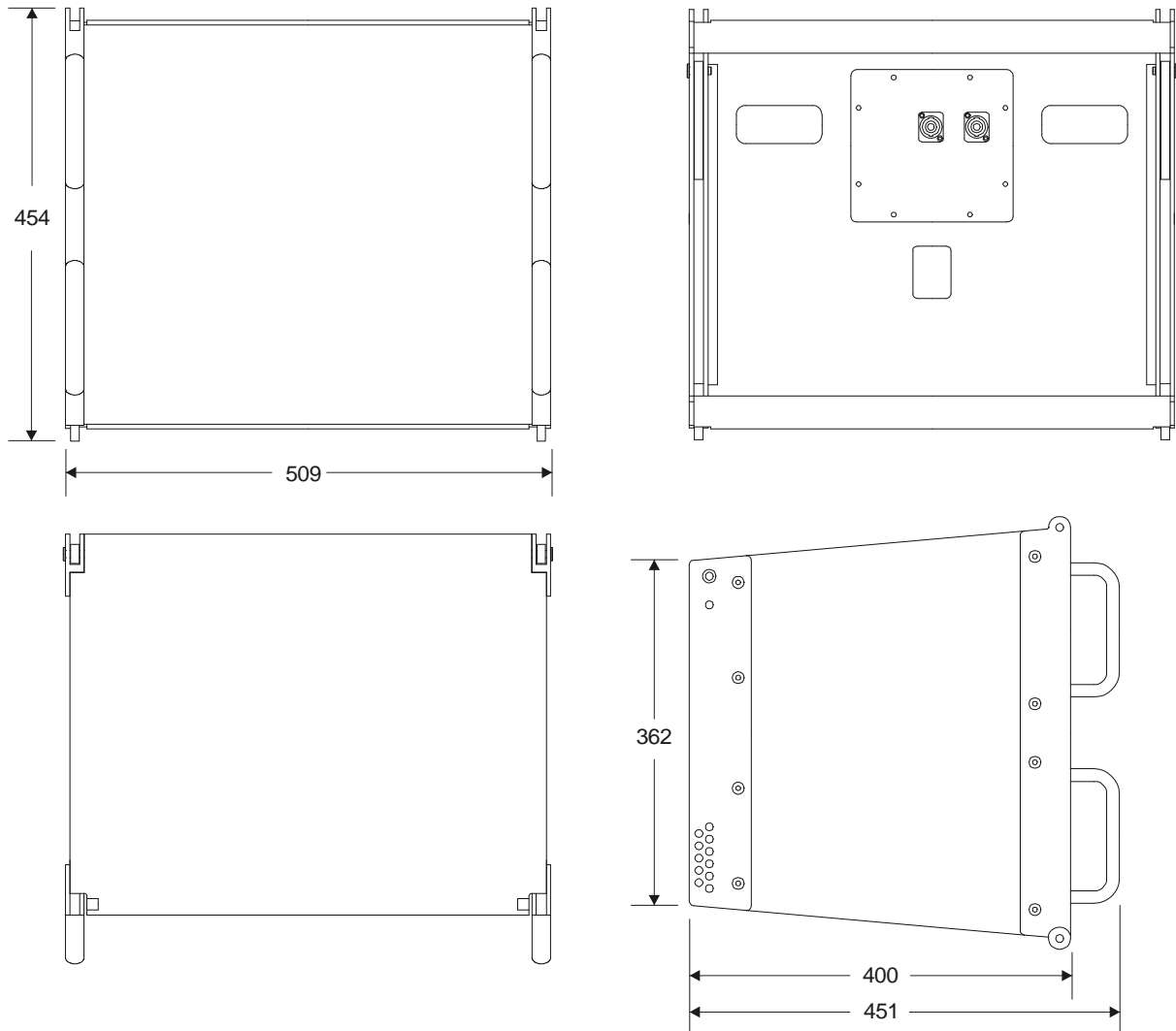
GAE BR215

GAE BR118

GAE BR218

GAE WaveLine PT Bass

Technical drawings GAE WaveLine PT Bass



GAE

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Technical modifications without notice.