Vari-directional Array
The smart route to acoustical perfection

BOSCH
Invented for life

The ultimate sound performance
for acoustically challenging environments

▶ **Unmatched sound quality and speech intelligibility**

▶ **Intelligent Configuration Software, supporting EASE[1]**

▶ **Automatic beam configuration**

▶ **EVAC compliant**

▶ **Flush-mountable, sleek design**

▶ **Optional Cobranet™ networking**

Superior technology for superb acoustics

Hard construction materials applied in buildings such as railway stations, airports, places of worship and conference centers, lead to disturbing reverberation. Vari-directional Arrays from Bosch overcome this challenge to deliver unmatched acoustical performance in difficult environments.

Thanks to digitally controlled directivity, sound is only sent where it is needed, producing an optimal sound field with perfect speech intelligibility.

The modular steel-cased array units can be mounted indoors or outdoors, flat against the wall or even flush-mounted. With their unobtrusive, elegant design, they are the perfect aesthetic choice for any environment or demanding interior.

Active Line Array

Bosch's active technology covers a large range, up to 50 m, and generates an evenly distributed sound output pattern. Electrical beam steering optimizes audience coverage without wasting output energy on ceilings or open space above the audience. As less reverberation is generated, this results in excellent speech intelligibility.

EVAC compliant

Full EVAC compliance means that the arrays conform to local and international requirements for voice-alarm applications. All the amplifier and loudspeaker components are fully supervised. Provisions for fault-detection and backup power supply are available for public address and voice alarm systems like Plena and Praesideo.

[1] EASE© Simulation Software is a registered trademark of Acoustic Design Ahnert. Berlin, Germany

Non-critical mounting height
The arrays can cover the listening area from a wide range of mounting positions.

Configuration software
Automatically generates the perfect sound beam in real-time. The software suite fully supports EASE[1].

On-board DSP technology
Active line array with up to 16 amplifier channels

Built-in microphone
Registers background noise for Automatic Volume Control (AVC)

Optional CobraNet™ networking
Seamlessly connect with other CobraNet™-based components, including Praesideo from Bosch.

Flush mounting
Front access to connections and front amplifier cooling allows flush mounting in walls.

Unique software for perfect and fast configuration

Automated configuration

The Bosch Configuration Software makes it easier than ever to configure a line array. By simply entering the room dimensions and the speaker mounting height, the software automatically generates the optimal setting for the beam in real-time. The final solution is perfect, without the need for time-consuming manual configuration.

Easy, intuitive software interface

The software menus are straightforward to use and easy to understand. A unique feature is that the software generates a real-time visual coverage pattern to check how the beam will be steered. Changing the parameters will instantly change the coverage pattern. Furthermore, the software features a complete on-line monitoring screen for Vari-directional Array diagnostics.
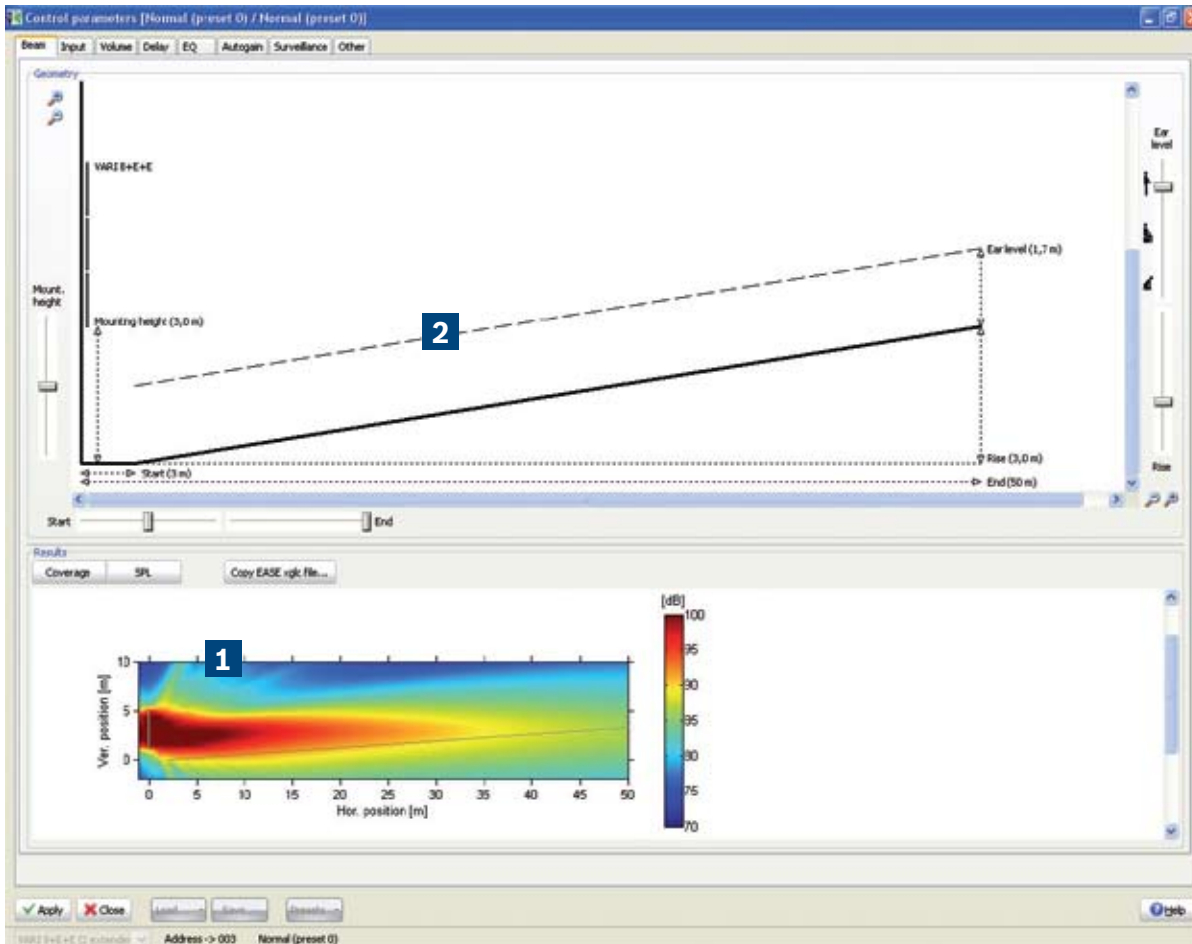
The software can fully control the built-in delay, equalization, supervision parameters for Voice Evacuation applications and offers automatic volume control for noisy environments.

Interchangeable data

When a 3-dimensional analysis of room-acoustics is required, the directivity data of the Vari-directional arrays can be easily exported for use in EASE[1].

The computer running the configuration software can be connected to the array directly or via a dedicated network by means of an RS485/USB connection.

Real user flexibility

1   Through the software, the sound beam of the array is automatically generated to meet specific needs.

2   A tilted beam can easily be generated for use in auditoriums with tiered rows of seats.

Sound pressure is constant over the entire audience area. There are no hot spots – the sound is clear and natural throughout the listening space.

A total **acoustical solution**
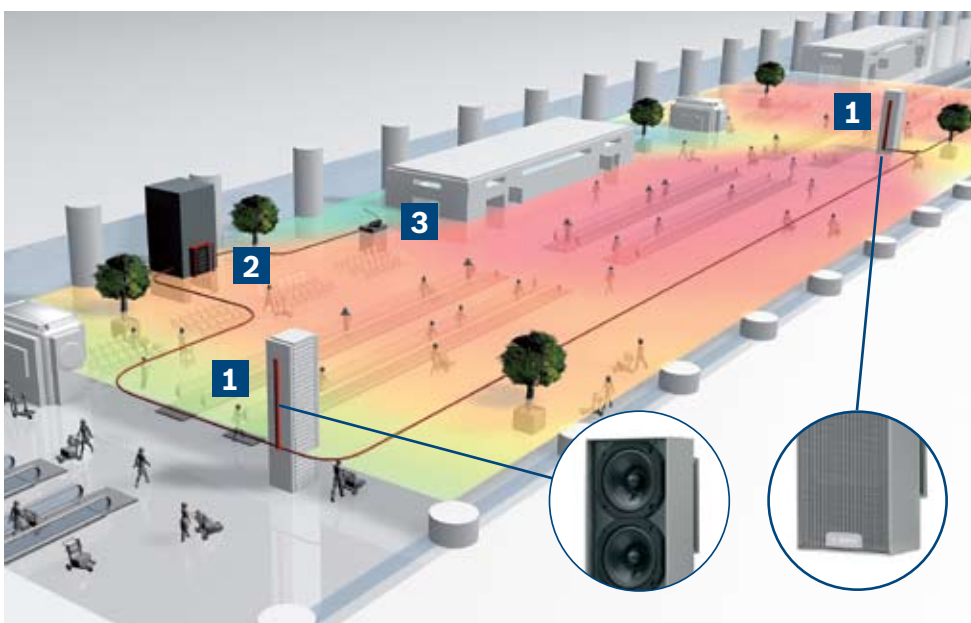for small to large projects

Superb speech intelligibility

Due to the optimal sound beam, there is no sound-energy loss and no disturbing reverberation, resulting in clear and easy-to-understand recorded messages and live speech. All relevant frequencies are present in the listening area, due to constant directivity. All frequency octaves are spread equally, for great music reproduction.

Fewer installation points

The long throw, combined with the wide horizontal opening angle and built-in amplifiers, means that fewer loudspeakers are needed to cover a large area, even an outdoor space like a recreation park. The result is a significant planning advantage with fewer installation points, less cabling and central equipment.

CobraNet™ networking

Using the optional CobraNet™ networking feature, Vari-directional Arrays can operate and be individually addressed in an infrastructure or larger system – such as a Praesideo public address system from Bosch – using the existing Ethernet network.
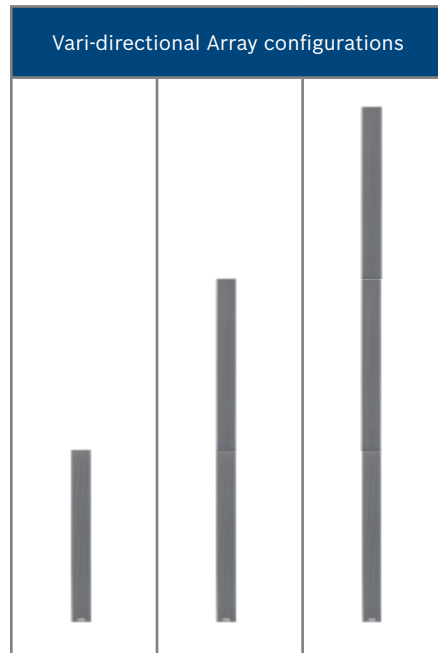

Vari-directional Arrays use best-in-class technology to ensure that the target audience hears everything perfectly, whatever the application. Whether it's an announcement of the next train, an inspiring sermon, a musical performance or a multimedia presentation, the message will always come through loud and clear.

1 Vari-directional Array
2 Praesideo system
3 Call station

Only a few modules **that make a world of difference**

Just a few product types provide all the tools to configure a superb loudspeaker system for nearly any environment. The standard base unit (LA3-VARI-B) is rugged enough for outdoor use, while the high-frequency base unit (LA3-VARI-BH) uses coax drivers for improved music reproduction. Both base units contain 8 amplifier channels, input and output connections, digital signal processing and a power supply for a complete array. The extension units, in combination with the base unit, create a loudspeaker that is up to 3.6 m tall and delivers a throw of up to 50 m.

LA3-VARI-B	LA3-VARI-BH	LA3-VARI-E
Base unit	Base unit with improved high frequency	Extension unit

Vari-directional Array configurations		

	Vari-array B1	Vari-array B2	Vari-array B3
LA3-VARI-B	1x	1x	1x
LA3-VARI-E		1x	2x

	Vari-array H1	Vari-array H2	Vari-array H3
LA3-VARI-BH	1x	1x	1x
LA3-VARI-E		1x	2x
Throw	15 m	30 m	50 m
Height	1.2 m	2.4 m	3.6 m

A Tradition of Quality and Innovation
For over 100 years, the Bosch name
has stood for quality and reliability.
Bosch is the global supplier of choice
for innovative technology, backed by
the highest standards for service and
support.

Bosch Security Systems proudly
offers a wide range of security, safety,
communications and sound solutions
that are relied upon every day in
applications around the world, from
government facilities and public venues
to businesses, schools and homes.