

### 100% SOUND. 100% FLEXIBILITY. 100% INTELLIGENCE.

FOHHN AIREA-SERIES.

### Airea-Series

Fohhn® Intelligent Audio Distribution

## AIREA. THE FUTURE.

Today's sound systems are not only expected to deliver perfect audio results. They also need to be simple and **flexible to install**, compact and elegant in appearance, with high levels of performance capability. Most importantly, they also need to accommodate a digital signal **input** and to be networked and remotely controlled. These demands have inspired Fohhn engineers to re-evaluate the current state of audio technology and to follow new and innovative paths of development.

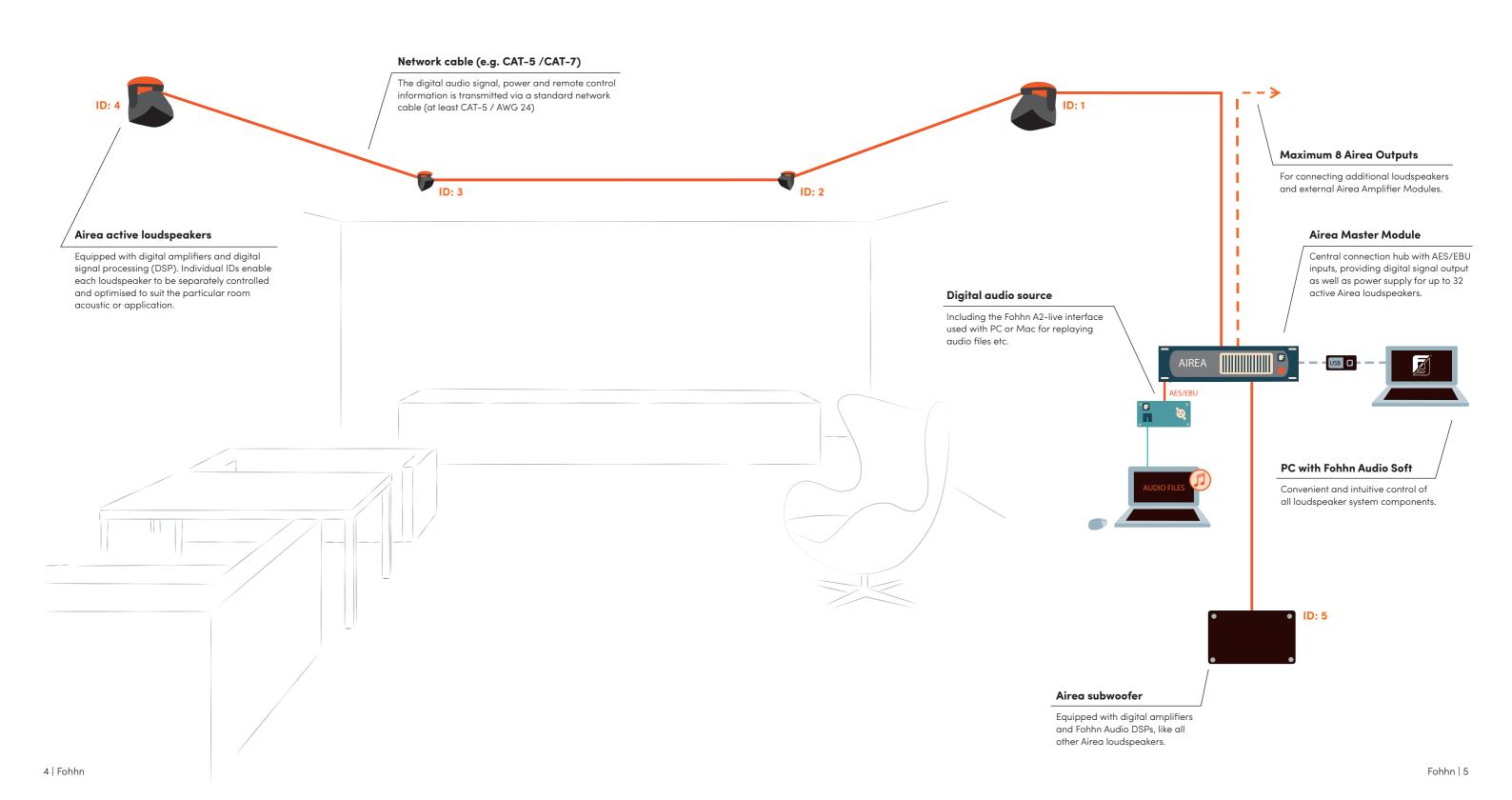
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### THE HIGHLY INTELLIGENT CONCEPT.

Active Loudspeaker Concept with Digital Audio Networking Capability.

Airea is an intelligent, networkable, active loudspeaker concept specially developed for high quality, flexible, forward-looking sound reinforcement applications.

The innovative Airea-System is based on state-of-the-art loudspeakers with integrated digital amplifiers and DSP technology, and a master module with digital input and output, all linked together via a conventional network cable.



### THE AIREA SYSTEM.

### System components

### THE AIREA LOUDSPEAKERS.

Powerful performance and perfect sound.



**LX-20 ASX**Ultra compact 2-way-speaker, 2 x 4" / 0,75" Tweeter, 100 W.



Available in all RAL colors



**LX-10 ASX**Ultra compact 2-way-speaker,
coax-design, 4" / 0,75" Tweeter, 50 W.



### THE AIREA MASTER MODULES.

Equipped with digital AES/EBU inputs, the Airea Master Modules form the main link to any digital mixing console, matrix, external sound source or digital audio network.





Network Cable (at least CAT-5 / AWG 24)

All Airea loudspeakers are equipped with an integrated 2-channel Class D amplifier plus state-of-the-art Digital Signal Processors (DSP). The two separate amplifier channels enable the speakers to run in bi-amping mode, with separate amplification of the high-frequency and low-mid drivers. Together with the integral dual-channel DSPs, this guarantees excellent audio performance, a wide dynamic range, linear frequency response and optimized protection.

The DSPs also offer high-quality audio tools such as parametric EQ, delay, dynamics, X-over etc. All Airea loudspeakers are equipped with RJ-45 input / output connectors.

The signal path remains fully digital throughout the entire Airea-System, so there is no loss in sound quality due to AD/DA conversion. The Airea Master Module also functions as the central power supply for up to 32 connected active loudspeakers. Because the loudspeakers do not require their own individual power supplies, the size of smaller Airea loudspeaker models could be reduced to the smallest possible dimensions. The power of each Airea Master output channel is limited to 200 W.



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### THE AIREA SYSTEM.

### System components

### **JUST ONE CABLE!**

All Airea-System components can be connected via a standard twisted pair network cable.



The network cable delivers the power, digital audio signal and remote control information, resulting in a simple, cost-effective and unobtrusive system connection – tread resistant cabling is also available for specific applications. The network cable has to be at least CAT-5 / AWG 24.

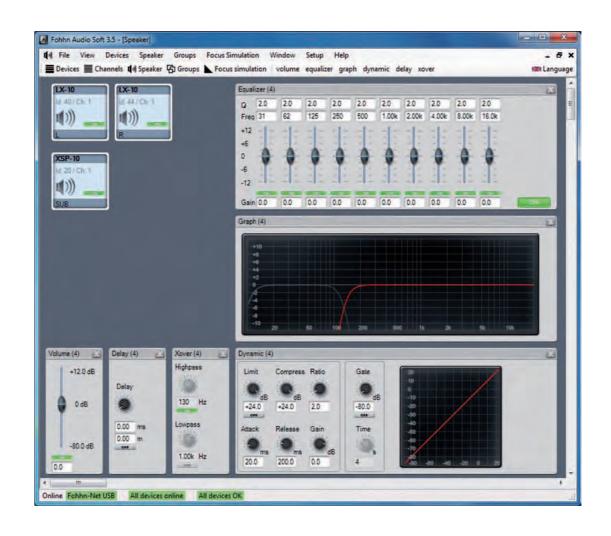
The Airea system functions as a dedicated network. This means that standard computer networks with switches cannot be used. The Airea network enables cable lengths of up to 100 m to be used. When Airea speakers or external Airea amplifiers are daisychained within a network the digital signal will be reinforced and even higher distances can be implemented.



### **SOFTWARE CONTROL.**

Each Airea loudspeaker has it's own ID within the network.

Each individual speaker can be separately controlled by Fohhn Audio Soft.



### Each loudspeaker in the system can be remotely controlled and monitored using Fohhn Audio Soft control software.

The software's intuitive, transparent interface enables each of the loudspeakers' numerous functions to be controlled in real time. The operating status of each loudspeaker can always be seen and its condition constantly monitored, resulting in excellent ergonomics and total security.



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### THE AIREA SYSTEM.

### System components

### THE EXTERNAL AIREA AMPLIFIER MODULE.

To convert an existing installation into an active, digital Airea System, or to create an Airea System using passive loudspeakers, one or more external amplifier modules can be connected to the Airea Master module. The external amplifier modules are equipped with speakon connectors. This way, excellent sound quality, reliability and remote control can be achieved using passive systems. As with all Airea loudspeakers, the Airea amplifier module also enables any connected loudspeakers to benefit from the two-stage DSP structure of the Fohhn system.





### A-2 LIVE - DIGITAL AUDIO INTERFACE.

Audio signals from a computer can be directly transmitted to Airea without any loss in sound quality or level. Designed to meet a range of professional audio requirements, the USB audio interface is equipped with an AES/EBU output. No additional driver installation is necessary.



### INTELLIGENCE CAN BE HEARD WITHOUT BEING SEEN.

### Especially with Airea.

- 100% sound quality: No A/D conversion, no loss in sound quality or level, no noise.
- Individual control: Each connected loudspeaker and subwoofer has its own ID and can be individually set-up and controlled. Remote maintenance via internet is also possible with PC-based configurations.
- Maximum flexibility: Customised sound coverage and settings for different areas and zones. If a room is re-organised, the system can easily be re-programmed.
- **Just one cable required:** Even if there are several loudspeakers involved, the system can be daisy chained using just a single cable (max 200W per Airea Master output channel). Visually, it's a perfect solution.
- Easy to install: Cabling and installation costs are reduced, as is the risk of errors during installation. Save both time and money.
- Comprehensive product range: Different tops and subs are available. Different sizes of loudspeakers (up to 200 W) can be connected to the master module and incorporated into the Airea System. Even ultra-compact speakers such as the LX-10 can be used as Airea systems.

- Long distance coverage: Airea enables the use of long cables, up to 100 metres in length. The fully digital signal path ensures that no loss of quality occurs at any point over the entire distance.
- **Contemporary design:** Innovatively designed, technically advanced and visually elegant.
- Open for the future: Use of the established AES/EBU protocol provides connection compatibility with all current audio networks, as well as those of the future.

### • Airea System Applications:

- · AV integration
- · IOSONO 3D sound
- · Broadcas
- · TV studios
- · Shops
- · Conference room
- ·Theatre
- · Rental
- Churches
- · Hotels
- Dare
- · Restaurants
- · High end home audio applications

### AS FLEXIBLE AS AN ACTIVE SYSTEM.

As easy to cable as a passive system.

In comparison with conventional installation solutions, Airea offers many advantages. With its remote control, signal processing and monitoring capabilities, Airea simply doesn't compromise when it comes to sound quality, ergonomics or flexibility.

To control individual loudspeakers, it is normally necessary to use either a number of separate amplifiers with point-to-point cabling, or an appropriate number of active systems. Both solutions can prove expensive, complex and inflexible.

By using just one cable, Airea is vastly superior to conventional active systems. As well as the possibility to daisy-chain a number

of loudspeakers, it is also possible to cover distances of up to 100 metres without any problems, with individual sound, delay and dynamic settings for each speaker.

Using standard AES/EBU signal input, Airea is both versatile and open for the future: Third-party converters not only enable the simple connection of analogue audio sources, but also provide a solution for connecting to digital audio protocols including MADI, CobraNet, Dante or Ethersound, as well as those of the future.

The system's fully digital signal path means no loss in quality, while at the same time ensuring that it is well prepared for the future.

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### **AIREA IN 3D.**

### Three-dimensional images deserve three-dimensional sound.

This circular listening space offers 360° projection, with an equally impressive 3D sound system. The relatively small room has been equipped with Airea loudspeakers at both listening height and on the ceiling. In this particular situation, the advantages of Airea lie in the simple, clear structure of the

system as well as the excellent sound quality due to the digital signal transfer. Airea technology also enables the function of all the system components and the quality of the sound reproduction to be constantly monitored.

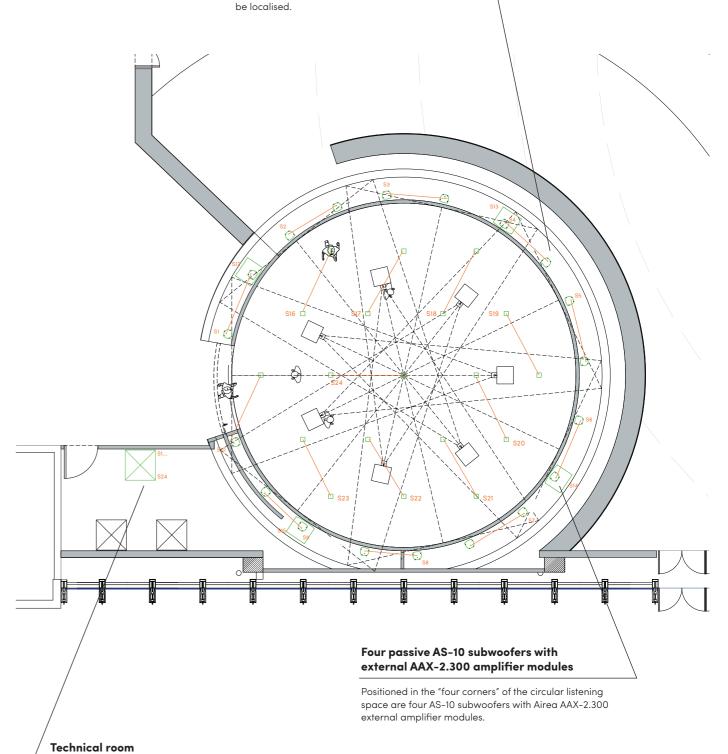
# Low reverberation time Absorbers are used behind the projection screen to sook up reflections from the wall

cally "dry".

and ensure that the room sounds acousti-

### Loudspeaker LX-20 ASX

These loudspeakers are installed behind the acoustically transparent projection screen and have their own specially calculated signal within the Airea network. The loudspeakers are mounted in a circle, ensuring that virtual sound sources on the listening plane can



An IOSONO 3D sound processor and three Airea Master modules form the heart of this system. The sound processor calculates an individual signal for each loudspeaker. The Airea Master modules transmit the signals to the loudspeakers, along with the necessary power. Using a laptop and Fohhn Audio Soft, the system can be set up and permanently monitored.

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### AIREA MAKES THE CONNECTION.

When two rooms are made into one.

### Conference room project example

For this project, the planners and architects wanted an unobtrusive, de-centralized sound reinforcement solution. The system needed to be able to reproduce sound from media equipment, as well as forming part of a surround set-up and producing

high levels of speech intelligibility for presentations. A dividing wall enables the room to be used as either one large or two smaller conference rooms.

### AS-10 subwoofer with external AAX-2.300 amplifier module The DSP in the amplifier module ensures that the subwoofer actively functions from 40 Hz up to 130 Hz and can be effectively aligned with the other loudspeakers.

LX-20 ASX

The loudspeaker DSP includes a high pass filter. In this case it is set to 130 Hz. This means that the loudspeaker and subwoofer together form an ideal fullrange system.

### LX-10 ASX

The duration of this loudspeaker signal is optimised in such as way that the listener always hears the sound source from a front facing central position. For this particular speaker, this means a delay time of around 8ms.

### LX-20 ASX

This back facing loudspeaker is used for surround sound.

### LX-20 ASX

This small sound system has been set up for playback from media devices. As soon as the dividing wall is opened, the speakers function as delay lines to ensure excellent levels of speech intelligibility in this area.

## Electric dividing wall

### 19" rack in technical room

The rack contains an Airea Master Module with eight output lines, enabling up to four loudspeakers to be connected to each. A small installation matrix provides the necessary AES/EBU signals.

### Lapel microphone, hand-held microphone or media system

The loudspeakers' integrated DSPs ensure that the sound system is perfectly adapted to the room acoustics or different microphone set-ups.

### Laptop with A2-live

For presentations, the A2-live plug-and-play audio interface can be connected to the speaker's computer for professional quality, fully digital audio transfer with no loss in quality.

### FR-10 wall panel

This panel offers the possibility of switching between audio presets for controlling the system settings depending whether the deviding wall is open or closed. It also enables volume control of the loudspeakers as well as activating surround sound playback.

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### AIREA. PERFECT SOUND RESULTS FROM A HIGHLY INTELLIGENT CONCEPT.

### fohhn.com

### OUR LOVE OF DETAIL GOES FAR BEYOND THIS BROCHURE:

On our website you can find detailed product descriptions, technical data, accessories and full data sheets for download, along with 360° product views, user guides, PDF brochures, CAD drawings, 2D and 3D DWG files, Fohhn software, firmware updates, EASE and ULYSSES simulation data, references and much more.

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