

SOUNDS PERFECT. IS **PERFECT.**



NEW FOHNN PRODUCTS

**100%
SOUND**

FOHNN SOUND SYSTEMS.
MUSIC TO YOUR EARS. PLEASING ON YOUR EYE.
CLEAR IN **YOUR MIND.**

FOHNN.
DRIVEN BY INNOVATION.

**TECHNOLOGICAL
DEVELOPMENT** MEETS
CREATIVE PRODUCT DESIGN,
BENEFITING BOTH **PEOPLE**
AND **ARCHITECTURE.**

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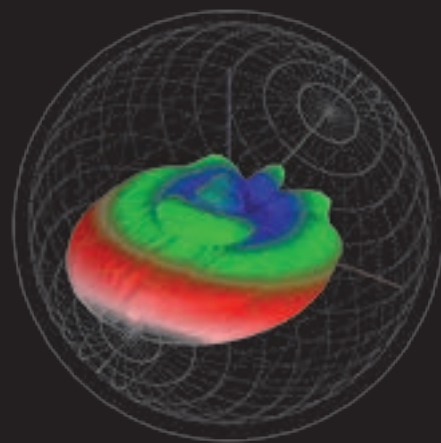
INTENSIVE RESEARCH AND
SUSTAINED **DEVELOPMENT** —
FOHNN'S ROUTE
TO **PERFECT SOUND QUALITY.**





→ THE FOHNN 2-AXIS MEASUREMENT ROBOT.

One of the Sound Lab's many technical highlights is the impressive measuring robot. The robot has been specially developed by Fohhn for measuring extremely large loudspeaker systems. It can pan through both speaker axes at 360°, with a positioning accuracy of 0.3°. With the robot's help, each loudspeaker's directional characteristics can be assessed and optimised during every development stage – from speaker chassis through to finished prototype. The polar pattern data obtained by running Fohhn loudspeakers through room simulation programs such as EASE or ULYSSES can also be analysed and optimised. This is achieved by making several hundred individual measurements, with the robot positioning itself at a different angle each time. A series of measurements for a single system can take up to 12 hours to complete.



THE FOHNN SOUND LAB.

THE FOHNN SOUND LAB.

The Sound Lab at our Nürtingen headquarters is a centre for high-level audio research. Here, multi-disciplinary engineering teams develop leading-edge technology that is constantly tested to assess the full limits of its capability. The Sound Lab also provides a perfect venue for customers to experience the full performance capabilities of our systems in a »live« environment.

LISTENING ROOM, TEST HALL, DEVELOPMENT LAB.

With an area of 24m x 14m x 6.5m, the Fohhn Sound Lab is one of Germany's largest and best equipped audio measurement facilities. A major investment in absorption and diffusion materials has turned the former industrial premises into an acoustically optimised listening environment. With 4-second reverberation time, the Sound Lab offers excellent test conditions. Developers can measure every single parameter of a loudspeaker system with the utmost precision and immediately analyse the data collected during test sessions. Only under such specialist conditions can a loudspeaker's performance be optimised to the highest level. A combination of room size and highly developed FFT measuring systems make it possible to obtain reflection free measurements down to 100 Hz – something that is usually difficult to achieve in the audio industry.

FOHNN – THE ART OF INNOVATION.

New paths to tread, innovative solutions to develop and the highest technical levels to aim for – these are our goals. An identical approach is applied with electronics and software through to acoustics and mechanics. Creative concepts for new loudspeakers are quickly translated into theory based on extensive calculations. Numerous computer simulations and prototyping phases follow in which each parameter is recorded and optimised: frequency response, dispersion characteristics, dynamics, distortion and large signal response. The next stage involves specifically optimising the amplifier electronics, digital signal processors (DSP) and remote control/networking technology for the loudspeaker. The result - a new and innovative product fully primed for high performance and true listening pleasure.



FOCUS MODULAR.

THE INTRODUCTION OF FOHNN'S LINEA FOCUS ELECTRONICALLY STEERABLE LINE ARRAY SYSTEMS PROVED A SIGNIFICANT MILESTONE.

FOUR YEARS LATER, FOLLOWING UNPRECEDENTED ENTHUSIASM, ENORMOUS SUCCESS AND A STRING OF ACCOLADES, THE NEXT GLOBAL INNOVATION IS UNVEILED.



FOCUS MODULAR TAKES FOHHN'S CURRENT BEAM STEERING TECHNOLOGY TO A WHOLE NEW LEVEL THROUGH CONTINUED DEVELOPMENT.

FOCUS MODULAR HAS GREATER PERFORMANCE CAPABILITY, BETTER DYNAMICS AND MORE POWER THAN ANY OTHER COMMERCIALY AVAILABLE ELECTRONICALLY STEERABLE LINE SOURCE SPEAKER SYSTEM.

FOCUS MODULAR GUARANTEES EXCELLENT SOUND QUALITY, HIGHEST SOUND PRESSURE LEVELS AND INCOMPARABLE BEAM STEERING PRECISION.



8 REASONS

WHY FOCUS MODULAR IS SO UNIQUE

1 Amazing potential.
Greater performance capability and better dynamics than existing electronically steerable line array systems.

2 Infinite possibilities.
Systems can be cascaded, combined and scaled for total flexibility.

3 Better results.
Includes 3 separate, state-of-the-art DSP processors.

4 Precise handling.
Perfect control in real time.

5 Unique live performance capability.
Suitable for live sound and mobile applications.

6 Incomparable precision.
Beam steering is considerably more precise.

7 Better overview.
Everything can be controlled via a single piece of software.

8 Superb integration.
Blends perfectly into architectural surroundings and stage settings.

FOCUS MODULAR

MODULAR LINE ARRAY SYSTEMS WITH BEAM STEERING TECHNOLOGY.



1. AMAZING POTENTIAL. GREATER PERFORMANCE CAPABILITY AND BETTER DYNAMICS THAN EXISTING ELECTRONICALLY STEERABLE LINE ARRAYS.

Two high frequency modules containing 8/16 ultra high performance compression drivers. These focus the speaker energy in a unique waveform/horn construction. The system produces outstanding sound pressure levels of up to 148 dB peak/1 metre. Rather than including a lot of smaller high frequency dome tweeters in each module, we have chosen real high performance technology encapsulated in a single module.

An extremely high performance low-mid module with specially developed high-powered 4" long excursion speakers. 32 of these are combined in one module to produce maximum sound pressure levels of up to 134 dB peak/1 metre*.

2. INFINITE POSSIBILITIES. SYSTEMS CAN BE CASCADED, COMBINED AND SCALED FOR TOTAL FLEXIBILITY.

Focus Modular systems can be adapted to meet a range of sound reinforcement requirements, offering unbelievable flexibility. Combine one, two or three low-mid modules with a high frequency module for example. Or, combine two high frequency modules with two low-mid modules, using one HF module on top for balcony coverage and one on the bottom for targeting the stalls. It simply depends on the venue requirements. The length and arrangement of the modules is influenced by the application and the acoustic conditions of the room. As the number of modules increases, so does the performance power. The longer the array, the longer its reach and its ability to target low frequencies more precisely.

3. BETTER RESULTS DUE TO THREE SEPARATE DSP PROCESSORS: BEAM STEERING DSP, SPEAKER PROTECT DSP AND USER DSP.

Instead of the usual single DSP unit, Focus Modular systems contain three independent, state-of-the-art processors. The processing is totally digital and extremely high quality thanks to the use of 56 bit/96 kHz double precision filter technology. Firstly, and most importantly, we have the **BEAM CONTROL DSP**. This guarantees precise beam steering in real time. Each individual speaker has separate processor control. Secondly, the **SPEAKER PROTECT DSP** offers loudspeaker protection via a sophisticated multi-band limiter. This guarantees maximum operating reliability and a controlled, clear sound image at all volume levels. The third DSP is known as the **USER DSP**. This gives the user direct access to the DSP functionality that includes very high quality audio tools such as 10-band parametric EQ, delay, dynamics, x-over etc. There's also an integrated pink noise generator and a sine tone generator plus status, temperature and operating time displays. The loudspeakers are also equipped with pilot tone monitoring for integration into emergency evacuation systems.

4. PRECISE HANDLING. PERFECT CONTROL IN REAL TIME.

A further unique feature is the ability to control the Focus Modular beam characteristics in real time via software simulation. This real-time capability offers tremendous advantages during venue set-ups. Using the software simulation, the user can see exactly where the beam is being directed and hear the result at the same time. It's a case of »What you see is what you hear«. This enables optimum sound results to be reliably achieved, without any stress!

* Peak, 20 ms, Pink Noise (IEC 60268- 2).

FOCUS MODULAR

MODULAR LINE ARRAY SYSTEMS WITH BEAM STEERING TECHNOLOGY.



Focus Modular flown system comprising two FM-400 low-mid modules and an FM-100 high frequency module, suspended via a VFM-1 flying cradle. Low frequency extension from patented high performance PS-9 21" active subwoofer featuring Adaptive Control Loop Technology. 8.5 KW peak.



5. UNIQUE LIVE PERFORMANCE CAPABILITY. SUITABLE FOR LIVE SOUND AND MOBILE APPLICATIONS.

Focus Modular systems are perfect for mobile sound reinforcement applications. They are compact, lightweight and extremely powerful. One FM-110 high frequency module and two low-mid FM-400 modules have a combined weight of 120kg and a maximum sound pressure level (dBA) of ca. 100dB at a distance of 100 metres. The coverage is very even and natural sounding. The dynamic performance is equivalent to six modules of conventional, compact 2 x 6.5"/1.4" line array. In comparison with conventional line arrays, the results are clearer and more precise, especially in challenging acoustic situations.

The modules also take up less space for transportation – use a sprinter van instead of a truck! When mounting on ceilings, the overall weight remains manageable and the set-up time is short. Using an existing rigging system, several modules can be quickly combined without the need for additional tools. The array hangs straight with no mechanical curving.

Setting up the speaker beams can be done via laptop – in real time. Small adjustments can be carried out at the click of a mouse. This enables changes to be made just before or even during the show, for example if audience numbers are less than expected, or if the balcony is not being used.

6. INCOMPARABLE PRECISION. BEAM STEERING IS CONSIDERABLY MORE EXACT.

The computing power of the signal processors used, combined with an enormous investment in development, has resulted in the ability to adjust the speakers' vertical beam width (0°-90°) and vertical sound inclination angle (-40°/+40°) in highly precise 0.1 increments. In real time! This has enabled more direct coverage of audience areas avoiding room reflections – something that is very important in reverberant surroundings.

Another contributory factor in achieving such precision is the use of Fohhn's **»Side Lobe Free Technology«**. Developed in house, this algorithm is designed to suppress the unwanted side lobes that inevitably occur with line arrays, leading to greatly improved speech intelligibility.

Another outstanding technological function is Fohhn's **»Two Beam Technology«**. Two separate beams are generated in the loudspeakers' vertical dispersion range (each beam has a full acoustic line length), enabling different areas such as stalls and gallery to be simultaneously targeted. The **acoustic centres** of both beams can be moved over the entire length of the array and adjusted to give optimum results, even in the most difficult acoustic conditions.

7. BETTER OVERVIEW. EVERYTHING CAN BE CONTROLLED VIA A SINGLE PIECE OF SOFTWARE.

Focus Modular systems can be directly and intuitively controlled using a single piece of software: Fohhn Audio Soft V3.3. Highly unusual, it nevertheless offers tremendous advantages: No unnecessary waiting time while data is transferred between software programs, or computer processes are completed. Loudspeakers do not have to be muted while settings are optimised. Both the software and loudspeaker systems are permanently online and in constant communication with one another. Every single adjustment, including beam steering and sound settings, can be made in real time. Bass Arrays can also be controlled using the same software.

8. SUPERB INTEGRATION. BLENDS PERFECTLY INTO ARCHITECTURAL SURROUNDINGS AND STAGE SETTINGS.

Focus Modular is also remarkable for its appearance. Architects, event organisers and customers simply love the loudspeakers' slim, unobtrusive »look« that allows the units to blend perfectly into architectural surroundings and stage settings.

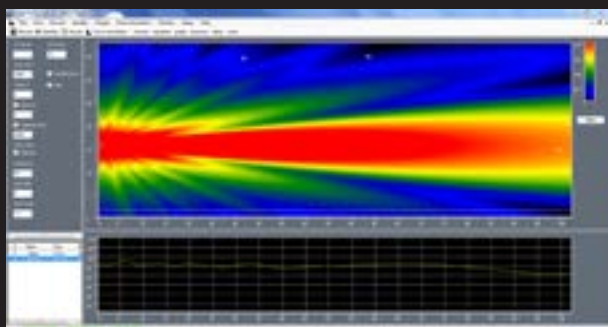
Housings can be supplied in all RAL colours to match interiors. As the speakers are electronically adjustable, they can be installed flat against the wall, or even integrated into a wall cavity enabling them to merge unobtrusively into the room architecture.

FOCUS MODULAR

MODULAR LINE ARRAY SYSTEMS WITH BEAM STEERING TECHNOLOGY.

SIDE LOBE FREE TECHNOLOGY

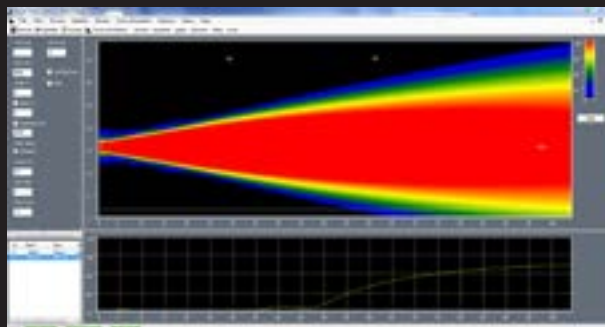
Developed in house, this algorithm is specially designed to suppress naturally occurring but unwanted side lobes. This results in more direct coverage and greatly improved speech intelligibility, especially in reverberant acoustic conditions.



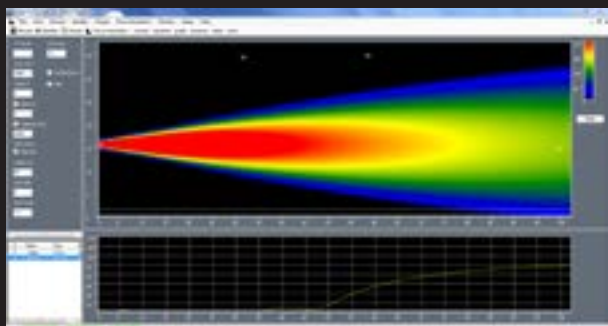
WITHOUT SIDE LOBE FREE TECHNOLOGY

TWO BEAM TECHNOLOGY

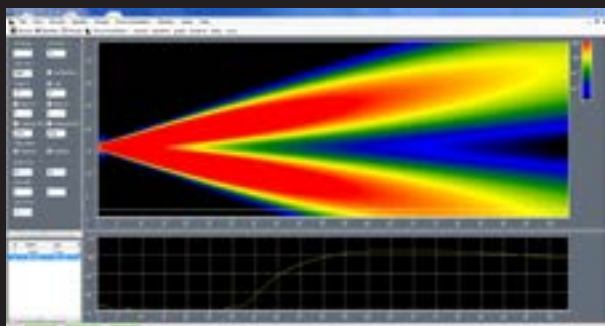
Also developed in house, »Two Beam Technology« enables the generation of two separate beams per module within a loudspeaker's vertical sound dispersion range. This applies to both the Focus Modular low-mid/full range and high frequency modules.



A SINGLE LOUDSPEAKER BEAM



WITH SIDE LOBE FREE TECHNOLOGY

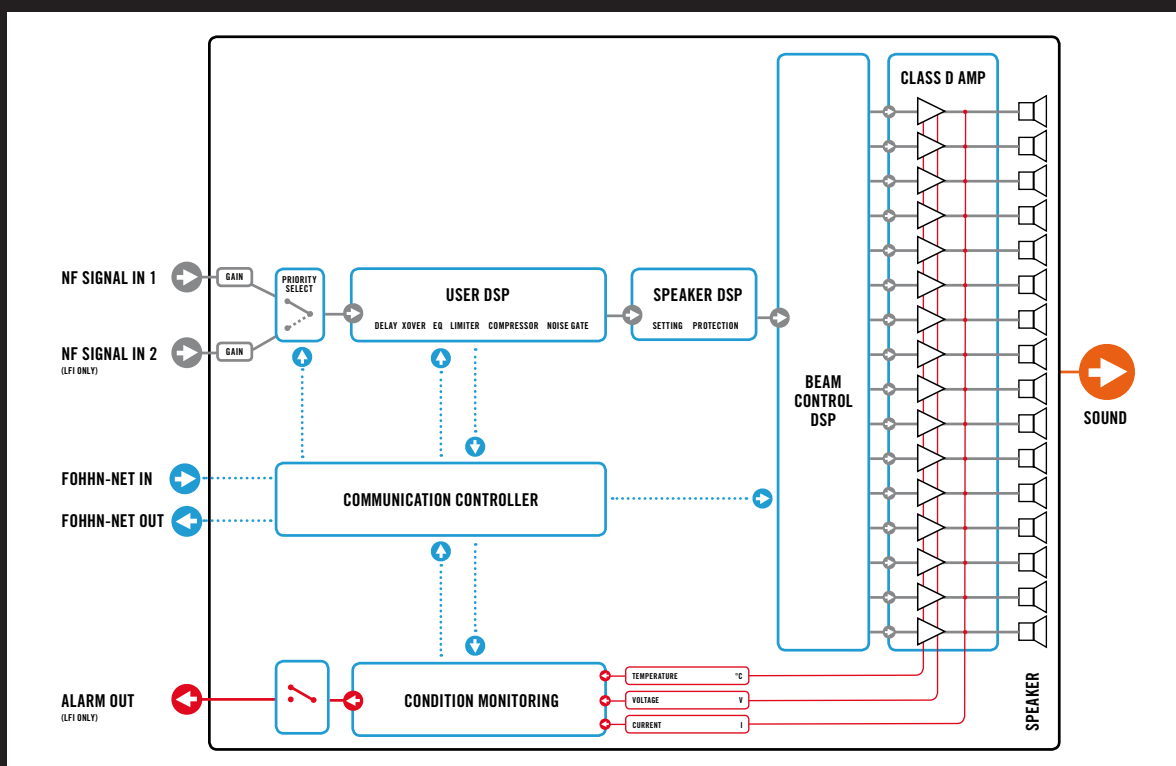


TWO SEPARATE BEAMS



Using Fohhn Audio Soft 3.3, Focus Modular systems can be intuitively controlled in real time. A clearly laid out graphical user interface gives quick and easy access to the integrated digital audio tools, grouping functions, sound presets and the Focus Simulation window.

FOHFN MODULAR – THE FUNCTIONAL PRINCIPLES.



This simplified diagram gives interested readers a basic overview of the functional principles. The input signal initially runs through the NF Signal In. This has a Priority Select that is primarily used to handle emergency evacuation information, guaranteeing maximum safety during an emergency. The input signal then passes through a digital signal processor (the User DSP), which offers an extensive range of real-time processing functions. These can be simply and intuitively accessed via Fohhn Audio Soft control software. The »Speaker Setting & Protection« DSP contains all the various protection mechanisms such as a finely tuned multi-band limiter.

At the »heart« of all Focus Modular systems is the »Beam Control DSP«. This contains the algorithms required for calculating the various beam characteristics. From here, all software beam steering settings made by the user are transmitted for realisation by the individual loudspeakers. Each speaker, with its specially calculated signal, is then driven by its own Class D amplifier.

Constant monitoring of each individual output signal and of component conditions such as temperature, current and voltage enables the user to check on the actual operating status at all times. Any modified settings can be saved as presets.

FOCUS MODULAR

MODULAR LINE ARRAY SYSTEMS WITH BEAM STEERING TECHNOLOGY.



FM-100/FMI-100

→ High performance, high frequency module with beam steering technology, equipped with 8 neodymium 1" compression drivers with Waveguide/horn system. 8 state-of-the-art Class D amplifiers are also integrated, as well as a specially developed multi-channel DSP processor for beam steering capability. The loudspeaker can reach a maximum SPL of 142 dB/1 metre. Its vertical beam width (0°-90°) and sound inclination angle (-40°/+40°) can be adjusted in real time, in 0.1° increments, using Fohhn Audio Soft control software. This ultra-fine degree of adjustment enables the speaker beam to be targeted with extreme precision towards the required audience area.

The speaker output can be split into two separate beams (Fohhn Two Beam Technology), enabling simultaneous coverage of different areas such as stalls and balcony. A further feature is Fohhn's Side Lobe Free Technology. This algorithm is designed to suppress the unwanted side lobes that inevitably occur with line arrays, resulting in greatly improved speech intelligibility.

The elegant speaker housing is constructed from premium quality birch plywood. Loudspeaker drivers and electronics are protected by a steel front grille, backed by acoustic foam, specially designed to give maximum sound transparency.

Two or more Focus Modular units can be securely combined in seconds using Fohhn's own Quick-Lock system. Flying mechanics can also be secured using Quick-Lock. Optional brackets for ceiling and wall mounting, and also for flown applications, are separately available. CAAD simulation data for EASE is available on request.

The FMI-100 fixed installation model is also equipped with important features that enable its integration into emergency evacuation systems (in accordance with EN60849 requirements). The connector panel has a protective cover with slots to accommodate cabling.



FM-110/FMI-110

→ High performance, high frequency module with beam steering technology, equipped with 16 neodymium 1" compression drivers with Waveguide/horn system. 16 state-of-the-art Class D amplifiers are also integrated, as well as a specially developed multi-channel DSP processor for beam steering capability. The loudspeaker can reach a maximum SPL of 148 dB/1 metre. Its vertical beam width (0°-90°) and sound inclination angle (-40°/+40°) can be adjusted in real time, in 0.1° increments, using Fohhn Audio Soft control software. This ultra-fine degree of adjustment enables the speaker beam to be targeted with extreme precision towards the required audience area.

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The FMI-110 fixed installation model is also equipped with important features that enable its integration into emergency evacuation systems (in accordance with EN60849 requirements). The connector panel has a protective cover with slots to accommodate cabling.



FM-400/FMI-400

→ **High performance, low-mid/full range module with beam steering technology, equipped with 32 specially developed, high performance neodymium loudspeakers.** 16 state-of-the-art Class D amplifiers are also integrated, as well as a specially developed multi-channel DSP processor for beam steering capability. The loudspeaker can reach a maximum SPL of 134 dB/1 metre. Its vertical beam width (0°-90°) and sound inclination angle (-40°/+40°) can be adjusted in real time, in 0.1° increments, using Fohhn Audio Soft control software. This ultra-fine degree of adjustment enables the speaker beam to be targeted with extreme precision towards the required audience area.

The speaker output can be split into two separate beams (Fohhn Two Beam Technology), enabling simultaneous coverage of different areas such as stalls and balcony. A further feature is Fohhn's Side Lobe Free Technology. This algorithm is designed to suppress the unwanted side lobes that inevitably occur with line arrays, resulting in greatly improved speech intelligibility.

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Two or more Focus Modular units can be securely combined in seconds using Fohhn's own Quick-Lock system. Flying mechanics can also be secured using Quick-Lock. Optional brackets for ceiling and wall mounting, and also for flown applications, are separately available. CAAD simulation data for EASE is available on request.

The FMI-400 fixed installation model is also equipped with important features that enable its integration into emergency evacuation systems (in accordance with EN60849 requirements). The connector panel has a protective cover with slots to accommodate cabling.

THE MAIN FACTS AT A GLANCE

- High performance, high frequency modules with 1" compression drivers, Waveguide and horn (SPL max: 148 dB)
- High performance low-mid module (SPL max: 134 dB)
- Powerful, musical sound
- Real-time beam steering via intuitive software
- Ultra-fine adjustment of loudspeaker beams in 0.1° increments
- Vertical beam width 0°-90°
- Vertical sound inclination angle -40° to +40°
- Side Lobe Free Technology – suppresses side lobes
- Two Beam Technology – two separate beams per module
- Suitable for mobile applications and fixed installations
- Excellent speech intelligibility, even in reverberant acoustics
- Build into the wall for complete invisibility
- Can be combined and cascaded
- No mechanical curving
- Extremely compact, low weight
- Short set-up time
- Extremely long reach

APPLICATIONS

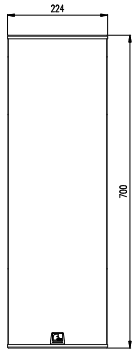
→ Focus Modular is the ideal sound reinforcement system for large conference facilities, theatres, cathedrals, concert halls, exhibition halls etc.

FOCUS MODULAR

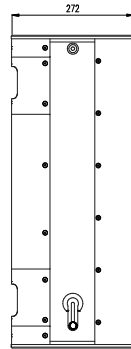
MODULAR LINE ARRAY SYSTEMS WITH BEAM STEERING TECHNOLOGY.

FM/FMI-100

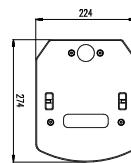
Front view



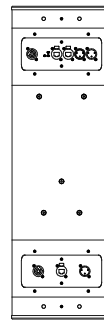
Side view



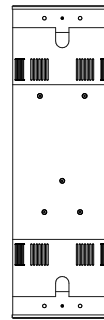
View from above



Rear view FM-100 with connection sockets

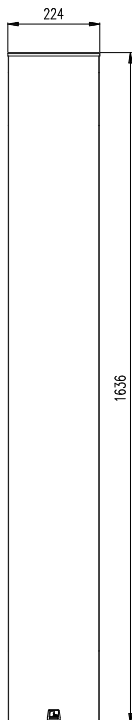


Rear view FMI-100 with internal connection sockets

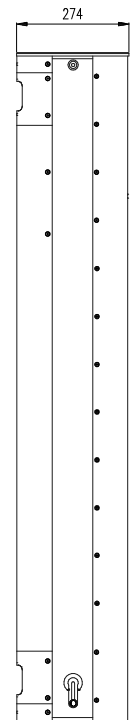


FM/FMI-400

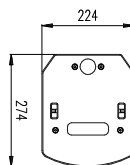
Front view



Side view



View from above



Rear view FM-400 with connection sockets

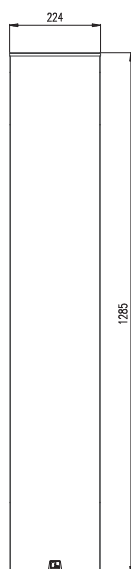


Rear view FMI-400 with internal connection sockets

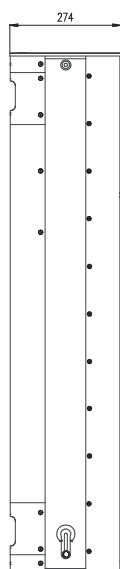


FM/FMI-110

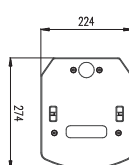
Front view



Side view



View from above



Rear view FM-110 with connection sockets

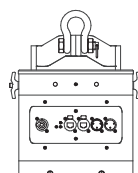
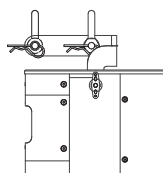
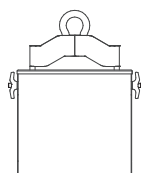


Rear view FMI-110 with internal connection sockets

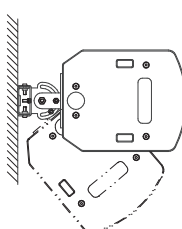
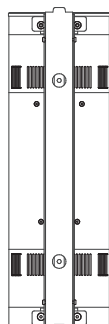
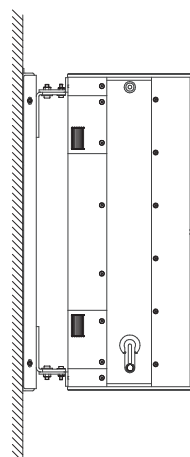


ACCESSORIES

Flying cradle VFM-1



Wall brackets WFMI-100, WFMI-110, WFMI-400



FOCUS MODULAR

MODULAR LINE ARRAY SYSTEMS WITH BEAM STEERING TECHNOLOGY.

	FM/FMI-100	FM/FMI-110	FM/FMI-400
Electro-acoustical features			
acoustic design	electronically steerable line array speaker	electronically steerable line array speaker	electronically steerable line array speaker
components	8x 1" horn loaded compression driver, neodymium motor	16x 1" horn loaded compression driver, neodymium motor	32x 4" long excursion with treated cones, neodymium motor
operating mode	active, 8-channel DSP amplifier, class D	active, 16-channel DSP amplifier, class D	active, 16-channel DSP amplifier, class D
maximum SPL ^[3]	142 dB (102 dB @ 100 m)	148 dB (108 dB @ 100 m)	134 dB (94 dB @ 100 m)
frequency range ^[5]	1 kHz – 20 kHz	1 kHz – 20 kHz	60 Hz – 17 kHz
horizontal dispersion ^[6]	90°	90°	–
	–	–	90°
	–	–	80°
vertical dispersion, electronically steerable ^[6]	0°– 90° in 0.1° steps	0°– 90° in 0.1° steps	0°– 90° in 0.1° steps
vertical sound inclination angle, electronically steerable	-40° – +40° in 0.1° steps	-40° – +40° in 0.1° steps	-40° – +40° in 0.1° steps
acoustic centre, both beams steerable	0% (at the bottom) to 100% (at the very top)	0% (at the bottom) to 100% (at the very top)	0% (at the bottom) to 100% (at the very top)
features			
enclosure	aluminum/wood cabinet	aluminum/wood cabinet	aluminum/wood cabinet
protection grille	steel, ball impact resistant, powder coated	steel, ball impact resistant, powder coated	steel, ball impact resistant, powder coated
rigging points	4x M8 threads, integrated rigging system	4x M8 threads, integrated rigging system	4x M8 threads, integrated rigging system
standard colours	black or white powder coating	black or white powder coating	black or white powder coating
front design	steel grille in enclosure colour, backed by acoustically transparent foam	steel grille in enclosure colour, backed by acoustically transparent foam	steel grille in enclosure colour, backed by acoustically transparent foam
dimensions (W x H x D)	224 x 700 x 274 mm	224 x 1285 x 274 mm	224 x 1636 x 274 mm
weight ^[7]	24 kg	39 kg	41 kg
optional features			
optional colours	all RAL-colours	all RAL-colours	all RAL-colours
remote control, remote monitoring and simulation			
remote control	Fohhn-Net, Fohhn Audio Soft	Fohhn-Net, Fohhn Audio Soft	Fohhn-Net, Fohhn Audio Soft
remote monitoring	temperature, protect, signals, power supply, Fohhn-Net, Fohhn Audio Soft, Pilot signal monitoring	temperature, protect, signals, power supply, Fohhn-Net, Fohhn Audio Soft, Pilot signal monitoring	temperature, protect, signals, power supply, Fohhn-Net, Fohhn Audio Soft, Pilot signal monitoring
fault message contact	relay 2x changeover	relay 2x changeover	relay 2x changeover
simulation beam	Fohhn-Net, Fohhn Audio Soft	Fohhn-Net, Fohhn Audio Soft	Fohhn-Net, Fohhn Audio Soft

	FM/FMI-100	FM/FMI-110	FM/FMI-400
electrical features			
amplifier output	8x 120 W	16x 120 W	16x 120 W
amplifier type	Pure Path Digital PWM	Pure Path Digital PWM	Pure Path Digital PWM
audio inputs	2 independent line inputs with automatic priority, transformer-balanced	2 independent line inputs with automatic priority, transformer-balanced	2 independent line inputs with automatic priority, transformer-balanced
audio outputs	2x link	2x link	2x link
DSP channels	Fohhn Audio DSP 16	Fohhn Audio DSP 16	Fohhn Audio DSP 16
amplification	28 dB	28 dB	28 dB
input sensitivity	1,4 V	1,4 V	1,4 V
frequency response	20 Hz – 20 kHz	20 Hz – 20 kHz	20 Hz – 20 kHz
S/N Ratio	>105 dB/A	>105 dB/A	>105 dB/A
protective circuit	soft start, temperature monitoring, short-circuit protection, overload	soft start, temperature monitoring, short-circuit protection, overload	soft start, temperature monitoring, short-circuit protection, overload
power supply	100 V – 240 V AC 4 A 50/60 Hz, power supply with Power Factor Correction	100 V – 240 V AC 4 A 50/60 Hz, power supply with Power Factor Correction	100 V – 240 V AC 4 A 50/60 Hz, power supply with Power Factor Correction
current consumption	Standby 5 W, max 1000 W	Standby 10 W, max 1000 W	Standby 10 W, max 1000 W
fuse	16 A @ 230 V	16 A @ 230 V	16 A @ 230 V
low power	Green Power Standby Mode	Green Power Standby Mode	Green Power Standby Mode
emergency power operation possible	external USV 230 V 1000 W 16 A	external USV 230 V 1000 W 16 A	external USV 230 V 1000 W 16 A
temperature range	0 – 40° C	0 – 40° C	0 – 40° C
cooling	temperature-controlled fan	temperature-controlled fan	temperature-controlled fan
weight electronics	3 kg	5,5 kg	5,5 kg
Controller			
digital signal processors	2	2	2
independent limiters	4	4	4
selective 3-band limiting	bass / mid / high	bass / mid / high	bass / mid / high
band specific time constants	✓	✓	✓
filter technology	56-bit double precision	56-bit double precision	56-bit double precision
AD	24 bit / 96 kHz	24 bit / 96 kHz	24 bit / 96 kHz
FIR filters			
gain	-80 dB – +12 dB	-80 dB – +12 dB	-80 dB – +12 dB
volume	-80 dB – +12 dB	-80 dB – +12 dB	-80 dB – +12 dB
EQ	10-band parametric EQ, gain +/-12 dB, frequency range 10 – 20 kHz, Q 0,1 – 100	10-band parametric EQ, gain +/-12 dB, frequency range 10 – 20 kHz, Q 0,1 – 100	10-band parametric EQ, gain +/-12 dB, frequency range 10 – 20 kHz, Q 0,1 – 100
limiter compressor	✓	✓	✓
noise gate	✓	✓	✓
X-Over	Linkwitz-Riley 4. order, 24 dB / octave, high pass 10 Hz – 20 kHz, low pass 10 Hz – 20 kHz	Linkwitz-Riley 4. order, 24 dB / octave, high pass 10 Hz – 20 kHz, low pass 10 Hz – 20 kHz	Linkwitz-Riley 4. order, 24 dB / octave, high pass 10 Hz – 20 kHz, low pass 10 Hz – 20 kHz
delay	0,01 – 350 ms (3,4 mm – 120 m)	0,01 – 350 ms (3,4 mm – 120 m)	0,01 – 350 ms (3,4 mm – 120 m)
CAAD simulation data	EASE	EASE	EASE

FOCUS MODULAR

MODULAR LINE ARRAY SYSTEMS WITH BEAM STEERING TECHNOLOGY.

	FM/FMI-100	FM/FMI-110	FM/FMI-400
controls FM-100/110/400 fixed installation (all controls internal)			
Fohhn-Net	2x in/thru, Phoenix terminals, 3-pin	2x in/thru, Phoenix terminals, 3-pin	2x in/thru, Phoenix terminals, 3-pin
mains connections	1x Powercon in, 1x Powercon out	1x Powercon in, 1x Powercon out	1x Powercon in, 1x Powercon out
audio inputs	2 independent line inputs with automatic priority, transformer-balanced	2 independent line inputs with automatic priority, transformer-balanced	2 independent line inputs with automatic priority, transformer-balanced
audio outputs	2x link, Phoenix terminals, 3-pin	2x link, Phoenix terminals, 3-pin	2x link, Phoenix terminals, 3-pin
fault contact	relay 2x changeover, link	relay 2x changeover, link	relay 2x changeover, link
display LEDs (internal)			
power on/ off (standby)	green=on, red=standby, red flashing=fault	green=on, red=standby, red flashing=fault	green=on, red=standby, red flashing=fault
network control	receive/send remote control LED	receive/send remote control LED	receive/send remote control LED
Anschlüsse FM-100/110/400 mobile application			
Fohhn-Net	1x RJ-45 Neutrik in, 2x RJ-45 Neutrik out	1x RJ-45 Neutrik in, 2x RJ-45 Neutrik out	1x RJ-45 Neutrik in, 2x RJ-45 Neutrik out
mains connections	1x Powercon in, 1x Powercon out	1x Powercon in, 1x Powercon out	1x Powercon in, 1x Powercon out
audio inputs	1x line input, XLR, transformer balanced	1x line input, XLR, transformer balanced	1x line input, XLR, transformer balanced
audio outputs	2x XLR, balanced	2x XLR, balanced	2x XLR, balanced
display LEDs			
power on/ off (standby)	green=on, red=standby, red flashing=fault	green=on, red=standby, red flashing=fault	green=on, red=standby, red flashing=fault
network control	receive/send remote control LED	receive/send remote control LED	receive/send remote control LED



The manufacturer reserves the right to make technical modifications according to legal regulations stipulating the continual improvement of product features.

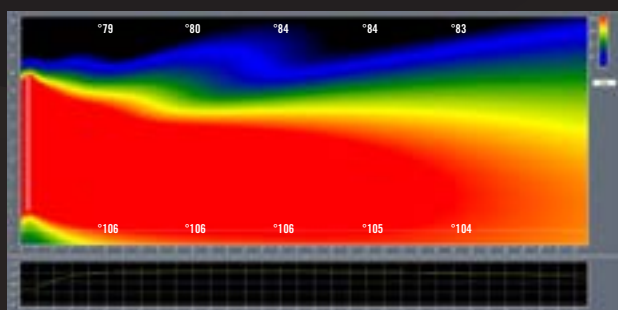
[3] Peak, 20 ms with bandpass filtered pink noise signal according to IEC 60268-2 at one octave above the lower limit of the frequency range.

[5] Usable frequency range [6] horizontal x vertical at -6 dB [7] net weight without optional equipment

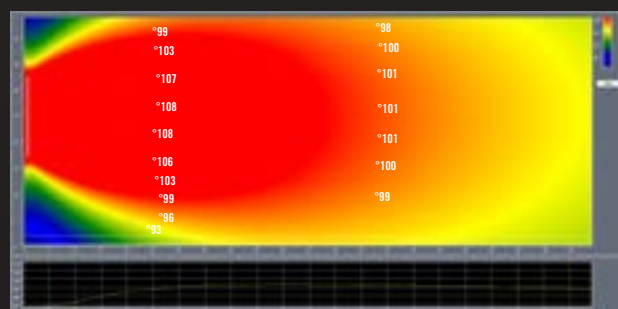


FOCUS SUB ARRAY BEAM STEERING TECHNOLOGY FOR BASS ARRAYS

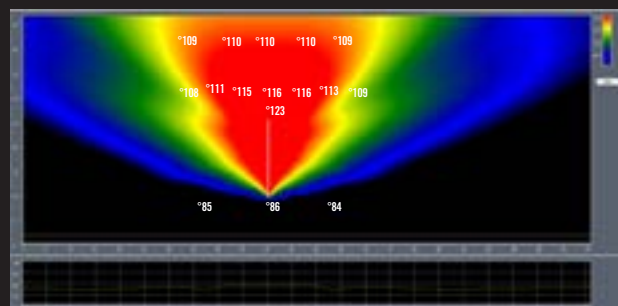
VERTICAL BASS ARRAY



HORIZONTAL BASS ARRAY



ENDFIRED BASS ARRAY





FOCUS SUB ARRAY AND PS-22

BEAM STEERING TECHNOLOGY FOR BASS ARRAYS.

Combining multiple subwoofers to form bass arrays is a common practice in modern sound reinforcement. The technique enables subwoofer beam characteristics to be optimized and more precisely directed.

However, the ability to control these beam characteristics in real time via software is completely new and unique. This is achieved using Fohhn Audio Soft 3.3 in combination with Fohhn DSP technology and Fohhn subwoofers. For the user, there are tremendous advantages: Real-time control lets you see the directional characteristics of the beam via software simulation and hear the result at the same time. This ability to simultaneously see and hear what is going on enables effortless and accurate set-up and control of horizontal, vertical and endfired bass arrays.

Electronically steerable bass arrays can be constructed using any Fohhn active subwoofers. If passive subwoofers are used, additional Fohhn DSP-controlled amplifiers or a Fohhn FC-8 controller must also be included.

The PS-22 compact subwoofer is the latest addition to Fohhn's Perform series. Specially designed as a flyable bass reflex system, it is equipped with a high performance, 12" long excursion speaker. The subwoofer is available as an active system (PS-22 active), with integral Class D amplifier, 1000W, Fohhn Double Precision DSP's, 4-line LCD display and network connection. A passive 500W/8 ohm version of the subwoofer (PS-22 passive) is also available.

THE MAIN FACTS AT A GLANCE

- Remote control of the bass frequency range using Fohhn Audio Soft
- Real-time beam steering in 0,1° increments
- Build horizontal, vertical or endfired bass arrays
- Powerful and precise reproduction of bass frequencies
- Even coverage of audience areas
- Reduction of troublesome room reflections
- Suppression of unwanted low frequency »side lobes«

Compact Subwoofer PS-22

- Flyable bass reflex system
- High performance, 12" long excursion speaker
- Active system (PS-22 active) with integrated Class D amplifier, 1000 W and Fohhn Double Precision DSP's
- PS-22 passive in 8 ohms with 500 W power rating
- Powerful and controlled sound over the entire frequency range of 38 Hz – 130 Hz
- Integrated flying mechanics and optional flying cradle
- Up to 12 PS-22s can be combined in a column to form a vertical array
- Ideal as a low frequency extension for electronically steerable systems such as the Focus Modular series

UNIQUE AND INTUITIVE:

**ONE PIECE OF SOFTWARE
CONTROLS EVERYTHING.**

DESIGNED FOR USE

**WITH ALL PRODUCTS.
REAL-TIME OPERATION.**

CONTROL AND MONITOR ALL FOHNN DSP AMPLIFIERS, DSP CONTROLLERS AND ACTIVE LOUDSPEAKER SYSTEMS EITHER INDIVIDUALLY OR IN A NETWORK. BEAM STEERING IN REAL TIME FOR LINEA FOCUS SYSTEMS, FOCUS MODULAR AND FOCUS SUB ARRAYS.

**100%
CONTROL**



FOHHN AUDIO SOFT V3.3

ONE PIECE OF SOFTWARE LETS YOU CONTROL AN ENTIRE SOUND SYSTEM. FOHHN AUDIO SOFT.

State-of-the-art technology and dedicated software have been closely developed in tandem by our engineers and finely tuned for perfect compatibility. No other software program is required; everything is included in a single intuitive application - Fohhn Audio Soft V3.3. The advantages are obvious: No unnecessary waiting time while data is transferred between software programs, or computer processes are completed. Loudspeakers do not have to be muted at any time while settings are optimised. Both the software and loudspeaker systems are permanently online and in constant communication with one another. Every adjustment can be made in real time, guaranteeing problem-free live control of all connected Fohhn systems.

Free download from www.fohhn.com.

THE MAIN FACTS AT A GLANCE

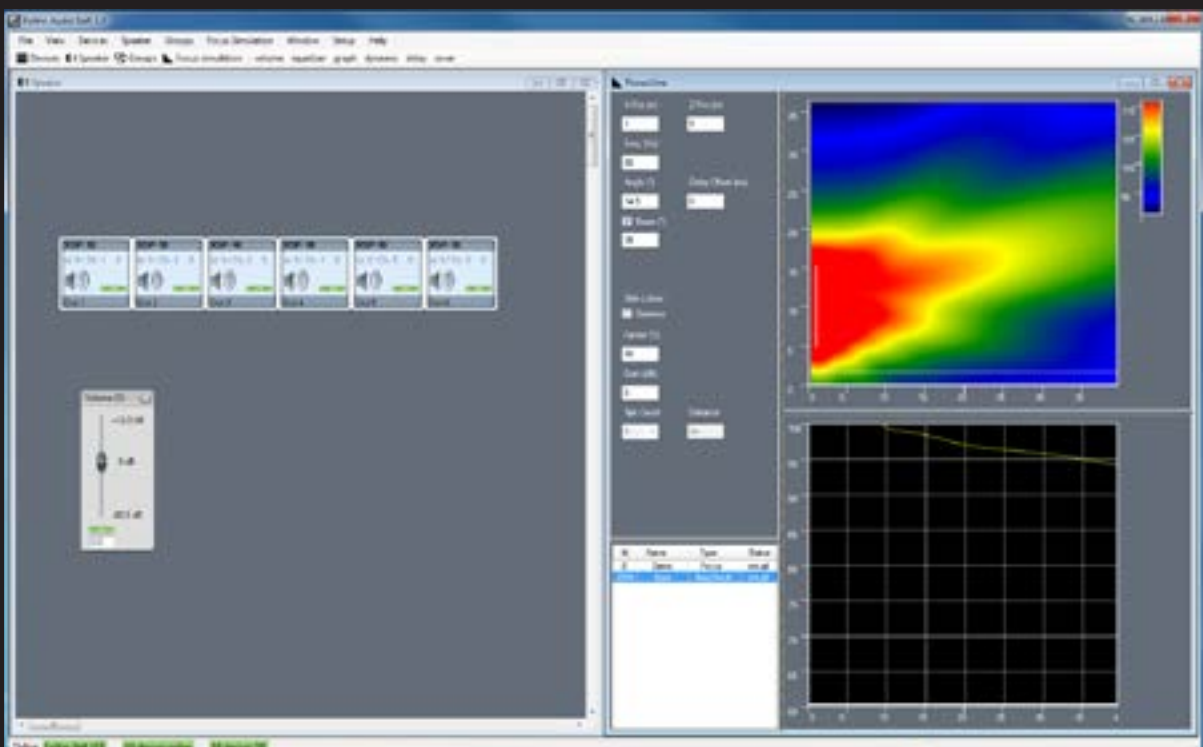
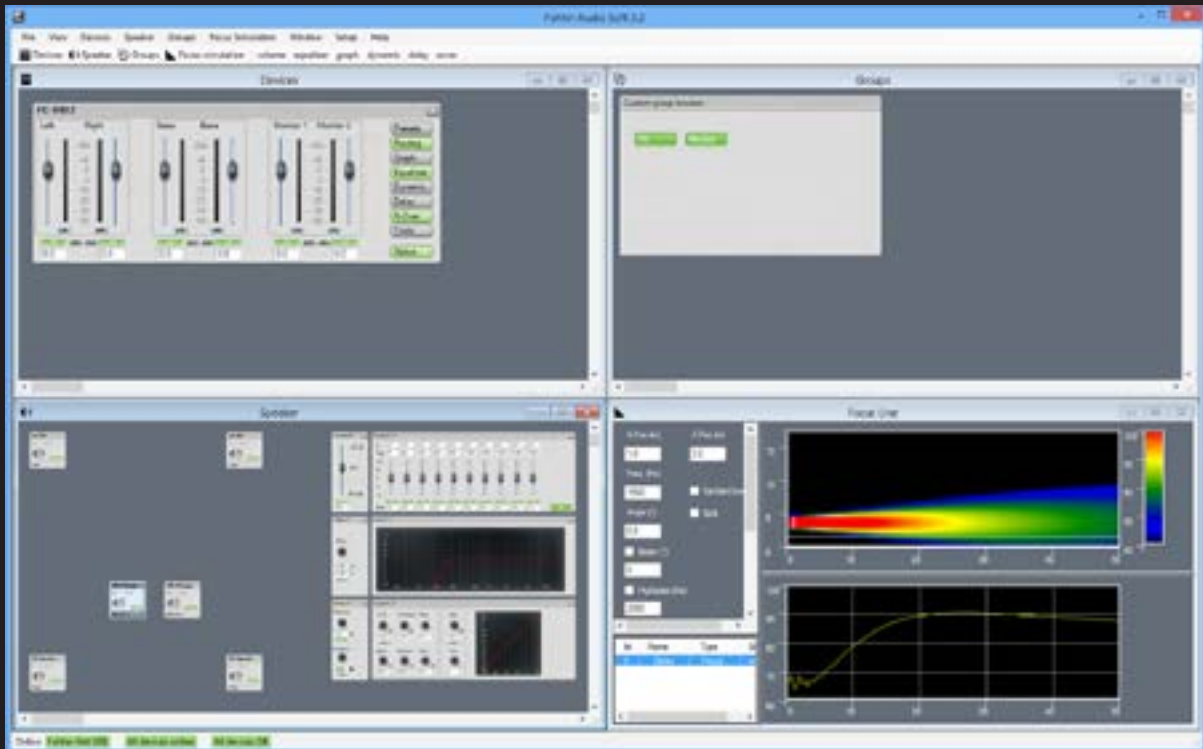
- Direct and intuitive remote control of Fohhn systems in real time
- Clear graphical user interface gives speedy access to all connected digital audio devices, group functions, software presets and Focus Simulation
- Devices can be controlled via laptop using Fohhn USB adapter or Fohhn Ethernet adapter
- All settings can be saved as presets.
- Up to 256 devices can be networked and remotely controlled

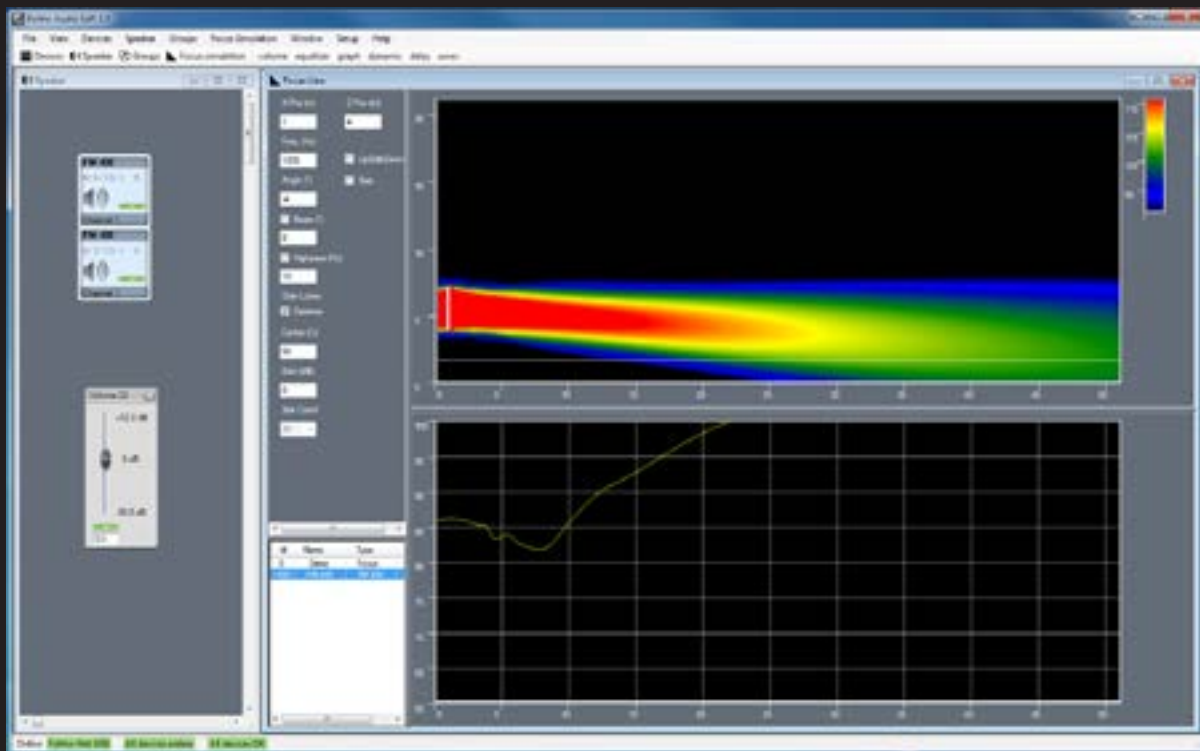
FREE DOWNLOAD AVAILABLE

→ www.fohhn.com

FOHNN AUDIO SOFT V3.3

ONE PIECE OF SOFTWARE CONTROLS EVERYTHING.





WHAT'S NEW: THE THREE LATEST FEATURES

FOCUS MODULAR SUPPORT.

Fohhn Audio Soft 3.3 includes full support for Focus Modular – Fohhn's brand new modular line array series with beam steering technology.

NEW PRESET FUNCTION.

The new Preset function in the Speaker View enables settings from multiple devices to be simultaneously saved and recalled. Speaker presets can also be directly configured using the loudspeaker symbols.

FOCUS SUB ARRAYS: BEAM STEERING TECHNOLOGY FOR BASS ARRAYS.

With Fohhn Audio Soft 3.3, multiple subwoofers of the same type can be combined to form a bass array and remotely steered in real time. By using either a mouse or keyboard to enter individual values, the direction and angle of each subwoofer beam can be precisely set. The Focus Simulation window virtually displays the various beam characteristics. Side Lobes can be suppressed and the acoustic centre adjusted or moved as required. Even coverage and accurate dispersion of bass frequencies can be achieved in minutes!

THIS TIME, EVEN WE'RE
SURPRISED
BY THE POWER OF OUR
OWN PRODUCT!



When we began developing the PT-6, we didn't want to build another horn-loaded PA system to fill the gap between conventional loudspeakers and modular line arrays. Instead, we took three of our PT-8 line array modules, put them in a compact housing and added state-of-the-art loudspeaker technology. The first time we powered up the system, we were absolutely amazed at its performance capability.





100%
PERFORMANCE

PERFORM PT-6

COMPACT HIGH PERFORMANCE PLUG-AND-PLAY LOUDSPEAKER SYSTEM WITH INTEGRATED LINE ARRAY TECHNOLOGY FOR STAND-MOUNTED, STACKED OR FLOWN APPLICATIONS.

The PT-6 has a twin coaxial speaker construction. Six 6.5" low-mid long excursion speakers offer a low cut-off frequency and more powerful performance. Three high performance 1.4" compression drivers and a specially developed HF phase EQ ensure crystal clear, precise reproduction of high frequencies.

A vertical dispersion angle of 30° guarantees excellent results even in venues with challenging acoustics, while a 110° horizontal dispersion angle makes the loudspeaker ideal for a wide range of sound reinforcement applications in venues such as festival tents, clubs and concert halls, as well as at open-air events.

Designed as a bi-amping system, the PT-6 is geared towards use with Fohhn's 4-channel D-4.1200 DSP amplifier. This ensures the best possible sound performance and maximum operating reliability, as well as simple plug-and-play connection.

THE MAIN FACTS AT A GLANCE

- Compact plug-and play system with integrated line array technology
- 6 x 6.5"/3 x 1.4" neodymium speakers with Waveguide. 2-way bi-amping technology
- Very high performance capability, powerful sound
- Enormous reach, extremely directional beam (30° vertical)
- Low weight, compact dimensions, easy to transport
- Easy handling, very short set-up time
- Safer stand use/flown applications due to sophisticated retaining bracket
- Geared for use with D-4.1200 DSP-controlled amplifier, presets for D-2.1500 and FC-8 controller

APPLICATIONS

→ PT-6 is an ideal system for small open air events, festivals, live music, town halls, marquees, clubs etc.

ARTICLE NUMBER

BLACK	1505-P0000
WHITE	1505-H0000

PERFORM PT-6

COMPACT PLUG-AND-PLAY SYSTEM WITH LINE ARRAY TECHNOLOGY.

TRULY VERSATILE.

→ Whether stand-mounted, flown or stacked, the multifunctional VPT-6 universal bracket enables the PT-6 to be quickly and securely set up. The bracket allows the speaker's inclination angle to be minutely adjusted between $\pm 25^\circ$.



→ PT-6 in combination with subwoofers

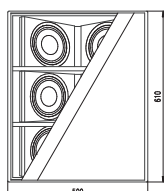
To add extra low end, we recommend combining the PT-6 with a Fohhn PS-9 active subwoofer, or an XS-4 active/passive sub. Fohhn DSP processor technology enables perfect alignment of the systems.

→ PT-6 and LX-11: Ultra high performance meets ultra compact.
PT-6: „I'm your father!"

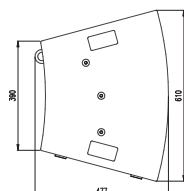
PERFORM

PT-6

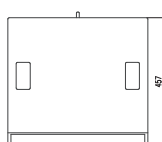
Front view



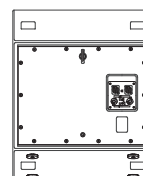
Side view



View from above



Rear view



AM-20



Clamp LC-50



TV spigot 30



SA-3



VPT-6



Electro-acoustical features

Acoustic design	2-way biamped full-range twin-coaxial curved array system, vented/hornloaded
Components ^[*]	6x 6,5" long excursion transducers, 3x 1,4" compression drivers on Waveguide, all speakers hornloaded, neodymium magnets
Power rating (nominal) ^[1]	900 W/210 W
Power rating (program) ^[2]	1800 W/420 W
Power rating (peak) ^[3]	3600 W/840 W
Sensitivity ^[4]	101 dB/114 dB
Maximum SPL ^[3]	135 dB/138 dB
Frequency range ^[5]	65 Hz – 20 kHz
Nominal dispersion (h x v) ^[6]	100° x 30°
Nominal impedance	6 Ohm/24 Ohm

Features

Enclosure	birch plywood
Protection grille	steel, ball impact resistant, powder coated
Rigging points	6x M10 & 2x M8 threads
Suspension points	6x M10, 2x M8 thread
Connections	2x Neutrik NL4 Speakon
Standard colour	scratch-proof polyurethane coating, black
Front design	acoustically transparent foam in enclosure colour
Dimensions (W x H x D)	500 x 610/390 x 455 mm
Weight ^[7]	39 kg

Optional features

Integrated 100 V-transformer	not available
Optional colours	all RAL colours
Weather resistance	impregnated speaker membranes

CAAD simulation data EASE

The manufacturer reserves the right to make technical modifications according to legal regulations stipulating the continual improvement of product features. [1] according to IEC-60268-5 long term, [5] -10 dB under anechoic halfspace-conditions, [2] according to IEC-60268-5 short term, [6] horizontal x vertical at -6 dB, averaged 1-4 kHz, [3] Peak, 20 ms with bandpass filtered pink noise signal according to IEC 60268-2 at one octave above the lower limit of the frequency range. [7] net weight without optional equipment, [4] 2,83 V at 8 ohms (2 V at 4 ohms, 4 V at 16 ohms) at a distance of 1 metre under anechoic fullspace conditions, [*] Intelligent Protection Circuit. Voltage-controlled semiconductor circuit protecting the HF-driver against overload highly effective and with very short attack time.



FULL CONTROL **FOR PERFECT SOUND.**

USER-FRIENDLY CONCEPT

Like all Fohhn systems, the DSP-controlled D-4.1200 digital amplifier can be intuitively controlled and monitored via laptop, in real time.

**100%
POWER**



D-4.1200 AMPLIFIER

IN A CLASS OF ITS OWN: THE NEW DSP-CONTROLLED, 4-CHANNEL D-4.1200 AMPLIFIER.

Fohhn is pleased to introduce the latest addition to its range of high performance, DSP-controlled multi-channel amplifiers – the new D-4.1200. The amp has been specially developed to guarantee the highest standards of audio quality and reliability. Fohhn DSP amplifiers ensure excellent sound quality and reliable operation, as well as offering a range of options for intelligently adapting your sound system to fit the room acoustic. Weighing just 11.1kg and occupying 2U of rack space, the CLASS D amplifier is extremely compact. It has a power rating of 4x 1200W/4 Ohm and runs very quietly. A major feature is the integration of Fohhn Audio DSPs.

THE MAIN FACTS AT A GLANCE

- 4 input channels
- 4 amplifier outputs 1200 W/4 Ohm each (output channels 1-4)
- 2 DSP aux outputs (output channels 5 and 6)
- State-of-the-art CLASS D amplifier technology
- Integral Fohhn DSPs guarantee optimum sound performance
- 5 top-class audio tools e.g. integrated parametric EQ
- Integral loudspeaker database for optimum operating reliability
- Remote control and remote monitoring capability. Networkable
- Minimal heat gain, quiet ventilators fans

APPLICATIONS

→ In combination with Fohhn loudspeaker systems, suitable for use in theatres, opera houses, churches, at concerts and live music events. Can also be used for delay lines, AV and industrial applications.

ARTICLE NUMBER

6005-00900

D-4.1200 AMPLIFIER

DIGITAL MULTI-CHANNEL AMPLIFIER WITH INTEGRAL DSP TECHNOLOGY.

SOUND QUALITY. OPERATING RELIABILITY.
INTELLIGENT CONTROL.



→ Integrated Fohhn Audio DSPs.

Dual DSP power guarantees excellent sound quality and maximum operating reliability. Fohhn's integrated DSP technology offers a range of options for system integration. The inclusion of two separate DSPs and an integral database containing details of all Fohhn loudspeakers makes our amplifiers unique.

The speaker database is based on an algorithm specially developed for each speaker. This protects bass, mid and high frequency drivers in all performance classes, guaranteeing outstanding sound and maximum operational reliability. The DSPs offer, on each channel, a range of programmable audio tools including 10-band parametric EQ, delay, compressor/limiter, noise gate and crossover, as well as temperature and performance monitoring. There is also a series of presets containing the necessary loudspeaker protection data and sound optimisation details for all Fohhn loudspeakers. This optimisation, together with the multiband limiting, enables maximum levels of performance and reliability to be achieved. Custom presets can also be created and stored.

With remarkable reductions in generated heat, incredibly low weight and compact dimensions combined with characteristically high levels of output power, this new Class D DSP amplifier is recommended for an unlimited range of applications.

→ Plug & Play

For mobile applications, the intuitive 4-line user display gives easy access to all DSP functions. The D-4.1200 runs very quietly due to temperature controlled ventilators and a precisely adjustable noise gate. The amplifier's multi-channel design saves having to connect and adapt external DSPs, EQs and crossovers. For small installations, projects can be realised quickly and reliably using a comparably simple microphone mixer.

→ Remote control/remote monitoring

The D-4.1200 can be networked and remotely controlled via laptop from a mixing desk or production area. Multiple amplifiers can be networked and centrally controlled. The D-4.1200 can also be linked to a media control system, which can be used to switch between presets for different room settings for example.

→ Fohhn® Mains Control.

The integrated network monitoring system.

During use, the supply to the amplifier is constantly monitored. If at any time it exceeds the maximum permitted range (180-255 VAC), the supply will be interrupted. During power up it also minimizes the input surge current by switching on at the mains voltage zero crossing.

→ Accessories

Control software, USB adapter, Ethernet adapter

D-4.1200



Electro-acoustical features

Amplifier technology	Class D
EIA amplifier power	4x 1200W/4 ohms 4x 750W/8 ohms (1 kHz, THD+N < 1%, 230 V mains)
Minimum impedance	4 ohms
Outputs	4 + 2 DSP
Inputs	4
DSP channels, Fohhn Audio DSP	6
Amplification	34 dB
Input sensitivity	1,4 V
Frequency response	20 Hz - 20 kHz
S/N Ratio	>105 dB/A
Protective circuit	switch-on delay, soft start impedance- and short-circuit
Remote control	Fohhn-Net, Fohhn Audio Soft
Remote monitoring	temperature, protect, signals
Power supply	AC 230V, 195 V - 250 V AC 50/60 Hz, switch mode power supply
Temperature range	0 - 45°C
Cooling	temperature-controlled fan
Weight	11,1 kg
Dimensions W x H x D	2HE, 88,9 x 483 x 380 mm

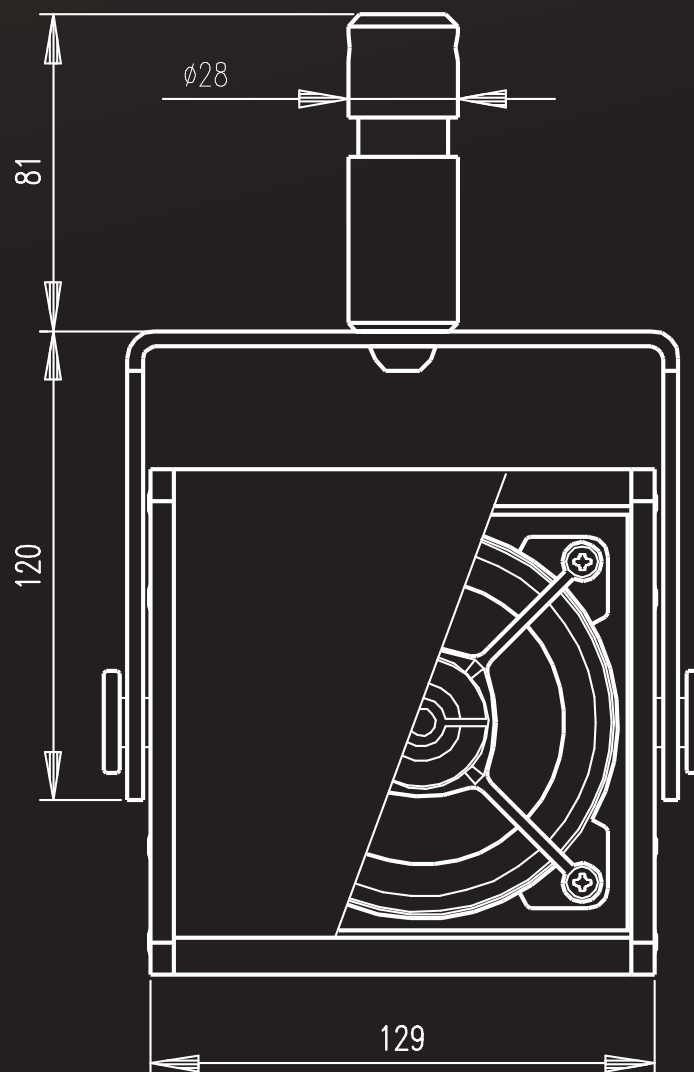
Controller

Controller	6 digital signal processors 24 independent limiters selective 3-band limiting (bass/mid/high) band specific time constants 56-bit double precision filter technology AD/DA 24 bit/48 kHz
Controls	Select potentiometer 4 buttons for DSP handling Power on/off switch 6 buttons for channel select
Indicators	4 line display 12x Signal/Level LED 4x Clip LED 6x channel select LED 1x ready LED 1x over-temperature LED receive/send remote control LED
Dynamic range	110 dB, A-weighted 20Hz-20kHz
Propagation delay	< 0.65 ms
Calculation depth	56 bit
Inputs/outputs	electronically balanced
Input impedance	10 kOhm
Output impedance	100 Ohm
Input clipping Level	+15 dBu
Output clipping Level	+20 dBu
Internal clipping Level	+38 dBu
THD	THD < 0.002%, +3 dBu, 1kHz THD+N < 0.02%, +3 dBu, 20Hz-20kHz

GOOD THINGS COME IN SMALL PACKAGES

LX-10 AND LX-11:

GREAT PERFORMANCE,
GREAT POWER, PERFECT SIZE.



LX-11 with VLX-11
universal mounting bracket
and TV spigot.

**IDEAL FOR FLOWN APPLICATIONS IN
TV/BROADCAST SOUND, EXHIBITION STANDS AND
ALL TYPES OF NEARFIELD USE.**



**100%
FIXED**

**100%
MOBILE**

LX-10 AND LX-11

SOUND PERFECTION FOR SMALL ROOMS AND SHORT DISTANCES.

High quality sound is just as important for small rooms, short distance coverage and nearfield applications. That's why we developed the ultra-compact, LX-10 and LX-11 2-way professional loudspeakers. The systems are equipped with high performance 4"/0.75" neodymium drivers and include a passive crossover with electronic Intelligent Protection Circuit (IPC). The speaker chassis have a coaxial construction. Developed in exactly the same way as our larger loudspeaker systems, the LX-10 and LX-11 are outstanding for their even sound coverage, flat frequency response and excellent reproduction of speech and music.

THE MAIN FACTS AT A GLANCE

- Ultra-compact nearfield loudspeakers
- Specially developed 2-way coaxial design
- Excellent reproduction of speech and music
- Very good speech intelligibility
- Very even sound coverage
- High quality speakers
- Highly developed electronic Fohhn IPC high frequency protection (as found in our larger PA systems)
- Elegant design; integrates perfectly into room architecture

APPLICATIONS

→ Ideal for demanding nearfield applications, small conference rooms, boardroom meetings, under balcony, TV and broadcast monitoring, restaurants, bars, surround sound etc.

ARTICLE NUMBERS

LX-10, BLACK	1207-B0AA0
LX-10, WHITE	1207-W0AA0
LX-11, BLACK	1210-B0000
LX-11, WHITE	1210-W0000

LINEA LX-10 AND LX-11

ULTRA-COMPACT NEARFIELD LOUDSPEAKER SYSTEMS.

A WORD FROM OUR DEVELOPERS

»The basic idea behind our LX-10/LX-11 systems involved the development of an ultra-compact, very high performance 2-way nearfield system. Many of our customers had expressed a wish for an extremely compact system, based on the same design characteristics of our larger Linea-LX systems, that could be used for smaller rooms, front fill, delay line or monitoring applications.

Despite their compact size, the new systems generated an enormous list of requirements including maximum set-up flexibility, excellent reproduction of speech and music, even coverage, high resistance to feedback and reliable operation to name but a few.

Even for nearfield/monitor use – which invariably involves being near microphones - all these aspects had to be meticulously considered and factored into the development process in exactly the same way as with our larger systems. Following a series of prototypes, it was decided that using special performance-optimised loudspeakers with a 2-way coaxial construction was the best way forward. To guarantee maximum protection of the high frequency drivers, Fohhn's own Intelligent Protection Circuit (IPC) was implemented. This same system is also found in larger Fohhn loudspeaker models.«

— The Fohhn Development Team



→ **The ultra-compact AV sound system featuring** a perfect combination of LX-11s and an XS-10 active subwoofer (integrated CLASS D amplifier, 2x 500W, DSP with loudspeaker presets for the LX-11). Up to 8 LX-11 loudspeakers can be used with an active XS-10. LX-11 systems are shown mounted on microphone stands using the VLX-11 universal bracket.



→ **LX-10** – Ideal for fixed installation with rear-mounted 8-pole Phoenix connectors. Optional wall bracket (WAL-03) and angled bracket (QLX-10) also available. All RAL Colours (optional).



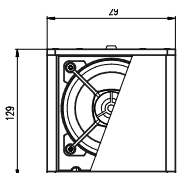
→ **LX-11** – Ideal for mobile applications. Two integrated Speakon connectors. Optional VLX-11 universal bracket for monitor applications. Can also be stand mounted using the SA-3 stand adapter, or flown using the Clamp-1. All RAL Colours (optional).

LINEA

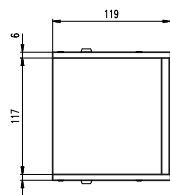
LX-10

LX-11

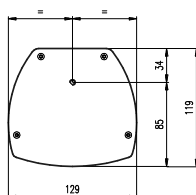
Front view



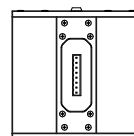
Side view



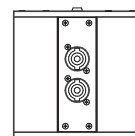
View from above



LX-10 Rear view



LX-11 Rear view



QLX-10



VLX-11



WAL-03



WAL-03



Model	Linea LX-10	Linea LX-11
Electro-acoustical features		
Acoustic Design	compact nearfield speaker system, 2-way coaxial	
Components ^[1]	4"/0,75" Tweeter, with self-resetting IPC ^[*] -HF protection, fully neodym.	
Power rating (nominal) ^[1]	50 W	
Power rating (program) ^[2]	100 W	
Power rating (peak) ^[3]	200 W	
Sensitivity ^[4]	86 dB	
Maximum SPL ^[3]	109 dB	
Frequency range ^[5]	90 Hz - 20 kHz	
Nominal dispersion ^[6] (h x v)	100° x 100°	
Nominal impedance	16 ohms	

The manufacturer reserves the right to make technical modifications according to legal regulations stipulating the continual improvement of product features. [1] according to IEC-60268-5 long term, [2] according to IEC-60268-5 short term, [3] Peak, 20 ms with band pass filtered pink noise signal according to IEC 60268-2 at one octave above the lower limit of the frequency range. [4] 2,83 V at 8 ohms (2 V at 4 ohms, 4 V at 16 ohms) at a distance of 1 metre under anechoic full space conditions, [5] -10 dB under anechoic half space-conditions, [6] horizontal x vertical at -6 dB, averaged 1-4 kHz, [7] net weight without optional equipment, [*] Intelligent Protection Circuit. Voltage-controlled semiconductor circuit protecting the HFdriver against overload highly effective and with very short attack time.

	Linea LX-10	Linea LX-11
Features		
Enclosure	aluminium housing	
Protection grille	ball impact resistant metal, powder coating	
Rigging points	2x M6 thread	
Connections	8-pin Phoenix terminal	2x Neutrik NL4
Standard colours	black or white powder coating	
Front design	metal grille in enclosure colour	
Dimensions (W x H x D)	130 x 130 x 120 mm	
Weight ^[7]	1,4 kg	
Angle for monitor set-up	stepless with universal bracket VXL-11	
Wall bracket	WAL-03, QLX-10	—
Optional features		
Integrated 100 V-transformer	10 W/5 W/2,5 W	
Optional colours	all RAL colours	
Weather resistance	weatherproof	
CAAD simulation data	EASE	

A PERFECT COMBINATION OF POWER AND ELEGANCE.

Customers who have successfully used Linea LX-100 and LX-150 systems in various projects told us they wished we had a high performance hybrid line array system capable of covering larger sized rooms – approx. 35 m in length. Intensive development work and a 2.2m loudspeaker length has now turned that wish into a reality.



2,20 Metres

13 cm



**100%
ELEGANCE**

LINEA LX-220

PEAK PERFORMANCE POWER.

Linea LX-220 is an extremely high performance, hybrid line source system incorporating state-of-the-art 4-way speaker technology.

It combines innovative line array technology with elegant design. The system was specially developed to provide the best possible sound quality for speech and live music applications in challenging acoustic environments, as well as enabling effective integration into architectural surroundings.

18 x 4" high performance speakers arranged in a column, plus three 1" compression drivers with horn loaded Fohhn Waveguide system, produce a very direct, cylindrical beam characteristic. At the heart of these cylindrical waveforms, the sound pressure level remains much more constant over distance compared with conventional loudspeakers. This has a very positive effect on the overall sound coverage. What's more, the sound reaches the audience more directly than with other conventional systems. Unwanted reflections from the ceiling or floor can be avoided, which greatly improves speech intelligibility especially in reverberant rooms. Using the LX-220, complex microphone set-ups can also be quickly and easily implemented. The inclusion of high quality aluminium housing and laminated speakers enables the unit to be used outside. For live applications, the LX-220 can be combined with Fohhn AS-20, AS-30, AS-40 or XS-20, XS-30 and XS-4 subwoofers.

Recommended amplifiers for the LX-220:
Fohhn D-2.1500 or D-4.1200 DSP-controlled systems.

THE MAIN FACTS AT A GLANCE

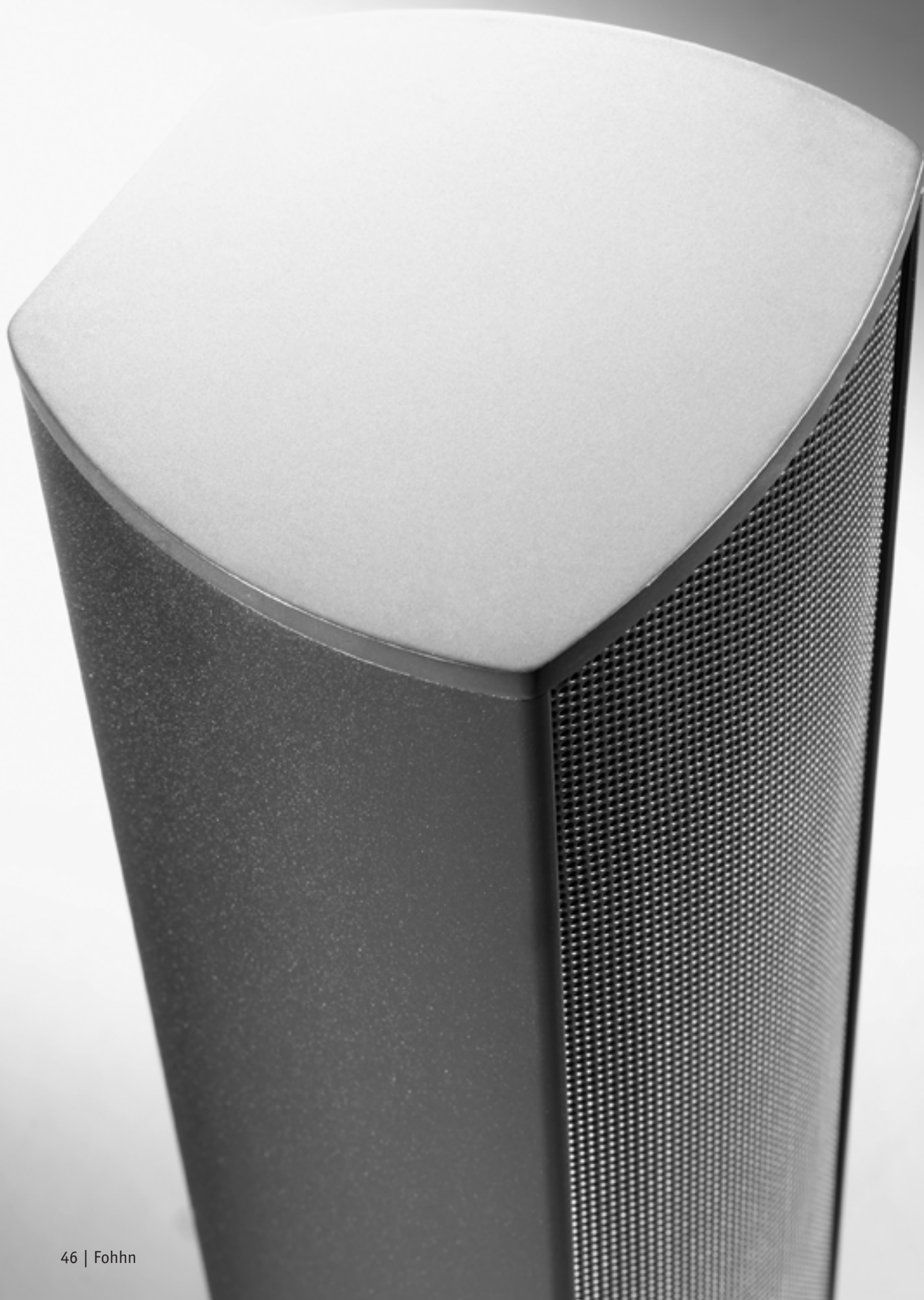
- High performance 4-way hybrid line source/mini line array system
- Long reach and excellent speech intelligibility
- State-of-the-art loudspeaker technology: 18x4" neodymium long excursion chassis and 3x1" compression drivers with specially developed waveform
- Sophisticated multi-zone crossover points with electronic IPC high frequency protection
- Excellent sound quality for both speech and live music
- Very even, controlled sound coverage with high resistance to feedback
- Weatherproof aluminium housing
- Elegant design, perfect integration into room architecture

APPLICATIONS

→ Ideal for fixed installation in churches, cathedrals, universities, conference rooms, halls etc.

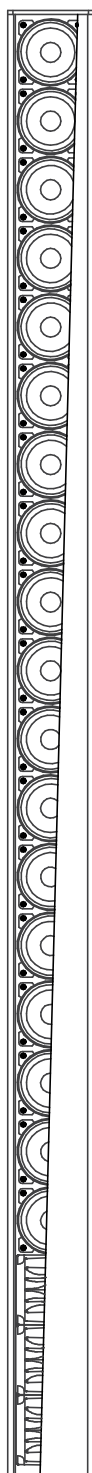
LINEA LX-220

HIGH-PERFORMANCE HYBRID LINE ARRAY SYSTEM.

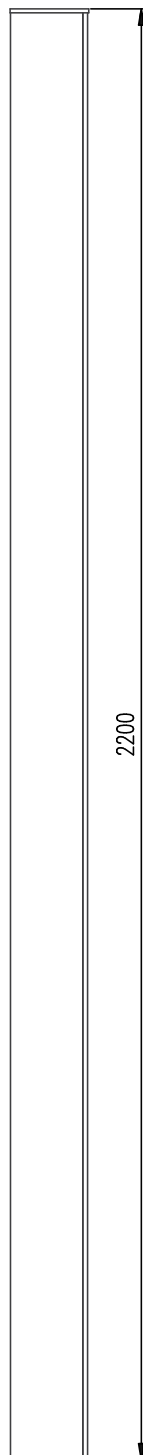


LINEA LX-220

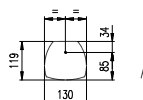
Front View



Side View



Top View



Electro-acoustical features

Acoustic design	passive hybrid line source speaker system, 4-way, weather resistant
Components ^[*]	18x 4" long excursion with treated cones, 3x 1" compression driver on Fohhn®-Waveguide with self-resetting IPC[*]-HF protection, fully neodymium
Power rating (nominal) ^[1]	900 W
Power rating (programm) ^[2]	1800 W
Power rating (peak) ^[3]	3600 W
Sensitivity ^[4]	96 dB
Maximum SPL ^[3]	131 dB
Frequency range ^[5]	65 Hz – 20 kHz
Nominal dispersion (h x v) ^[6]	130°x15°
Nominal impedance	4 Ohm

Features

Enclosure	Weatherproof aluminum
Protection grille	steel, ball impact resistant, powder coated
Rigging points	12x M6 threads
Connections	8-pin Phoenix terminal
Standard colours	black or white powder coated
Front design	steel grille in enclosure colour, backed by acoustically transparent foam
Dimensions (w x h x d)	130 x 2200 x 120 mm
Weight ^[7]	16 kg

Optional features

Integrated 100V-transformer	60/30/15 W
Special colours	all RAL colours
Weather protection	weatherproof

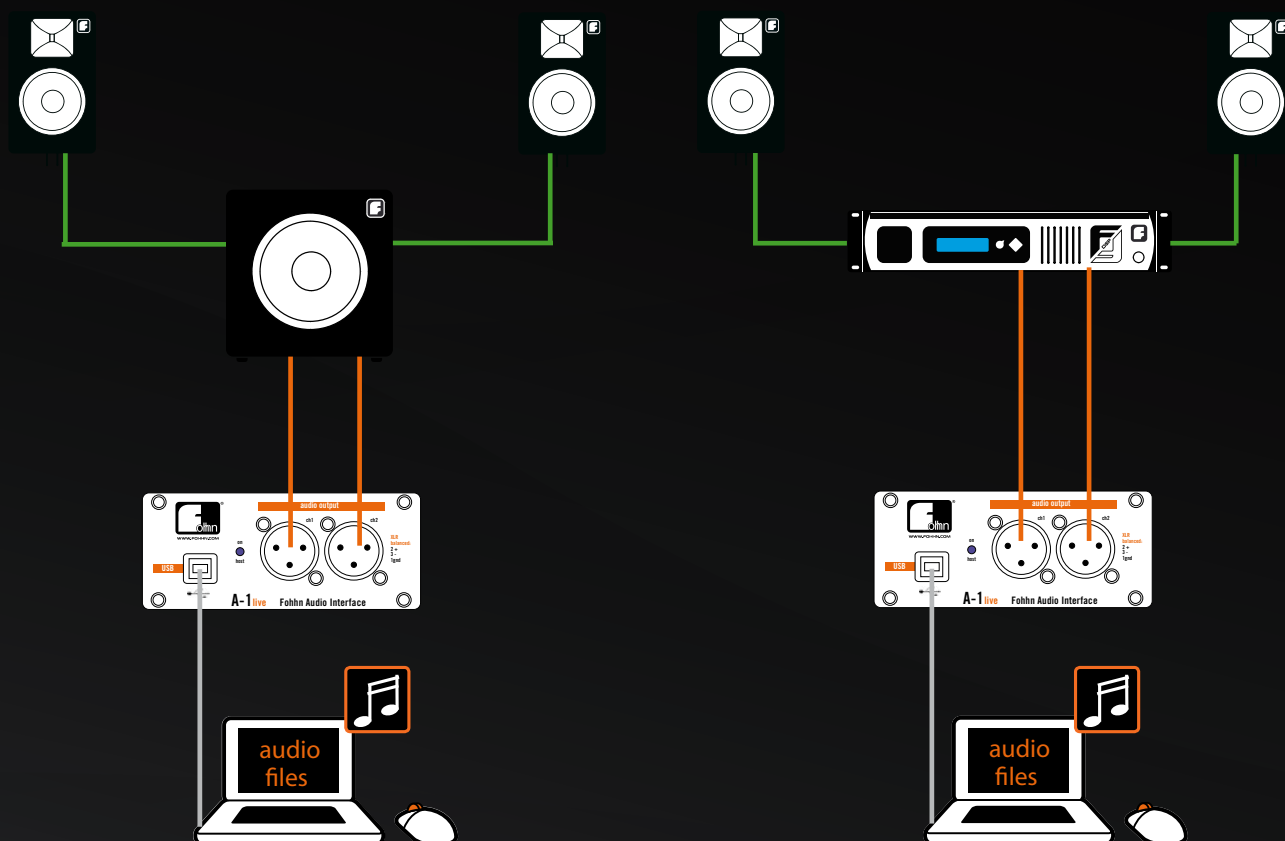
CAAD simulation data	EASE
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The manufacturer reserves the right to make technical modifications according to legal regulations stipulating the continual improvement of product features. [1] according to IEC-60268-5 long term [5] -10 dB under anechoic halfspace-conditions, [2] according to IEC-60268-5 short term, [6] horizontal x vertical at -6 dB, averaged 1-4 kHz, [3] Peak, 20 ms with bandpass filtered pink noise signal according to IEC 60268-2 at one octave above the lower limit of the frequency range. [7] net weight without optional equipment, [4] 2,83 V at 8 ohms (2 V at 4 ohms, 4 V at 16 ohms) at a distance of 1 metre under anechoic fullspace conditions, [*] Intelligent Protection Circuit. Voltage-controlled semiconductor circuit protecting the HF-driver against overload highly effective and with very short attack time.

SIMPLY PROFESSIONAL.

FOHNN'S A-1 LIVE

AUDIO INTERFACE.



The requirement: Direct transmission of audio from a computer to a professional sound reinforcement system without any reduction in sound quality or level.
The solution: Fohhn's new A-1 Live audio interface.

**100%
SOUND**



A-1 LIVE

SIMPLY PROFESSIONAL. FOHHN'S NEW A-1 LIVE AUDIO INTERFACE.

The A-1 live is a high quality, two-channel USB audio interface with balanced XLR outputs and a galvanically isolated USB connection. The interface has been specially developed to enable high quality, trouble-free transfer of audio signals from a computer to a professional sound reinforcement system.

Despite offering a variety of functions and possibilities, many standard sound cards and interfaces often lack either balanced XLR outputs or a galvanically isolated USB connection. This frequently leads to interference, hum, poor transfer quality and insufficient output levels. With the A-1 live however, these become a thing of the past.

Easy handling

Using the A-1 live, the computer can be directly connected to the system via balanced XLR connectors, without the need for additional devices such as a mixer. A trouble-free, secure connection is guaranteed, with no reduction in signal level and the galvanic isolation providing additional protection for your computer.

Requirements

The A-1 live is compatible with Windows XP, Windows Vista, Windows 7 and 8 (32-bit and 64-bit), as well as Mac OS 10.4 – 10.7 and Linux from Kernel 2.6. No driver installation required. The A-1 live is ready for immediate use.

THE MAIN FACTS AT A GLANCE

- No driver installation required
- Excellent audio quality
- Balanced XLR stereo outputs
- No DI box required
- Galvanically isolated USB connection
- No separate power supply required

ARTICLE NUMBER

6403-00000

FOHHN SOUNDLAB
CREATES
FASCINATING
3D WORLDS.

A JOINT PROJECT
WITH IOSONO.





FOHHN / IOSONO 3D SYSTEM

THE PERFECT 3D SOUND EXPERIENCE.

During February 2013, Fohhn Audio in cooperation with IOSONO, leading provider of 3D audio solutions for live events, theatre, cinemas, museums etc, installed and opened a spectacular IOSONO 3D demonstration facility in its Nürtingen SoundLab.

The new system offers a spectacular three-dimensional audio experience that places the listener at the very heart of the sound image. The implementation of several different loudspeaker levels gives a true 3D experience. Sound can move freely throughout the length, breadth and depth of the room with different characteristics simultaneously prioritized. For example, the sound of an approaching thunderstorm can be heard in the distance, while individual raindrops can also be heard falling directly over the heads of individual listeners. In comparison with conventional surround systems, the IOSONO 3D set-up offers more than simply a two-dimensional speaker system with effects. Each loudspeaker in the IOSONO 3D audio system is capable of reproducing a full dynamic range. Therefore, rather than simply transmitting effect signals, the loudspeakers can recreate an actual 3-dimensional sound image. This enables particular sounds to occur in specific places, exactly as they would in real life.

THE MAIN FACTS AT A GLANCE

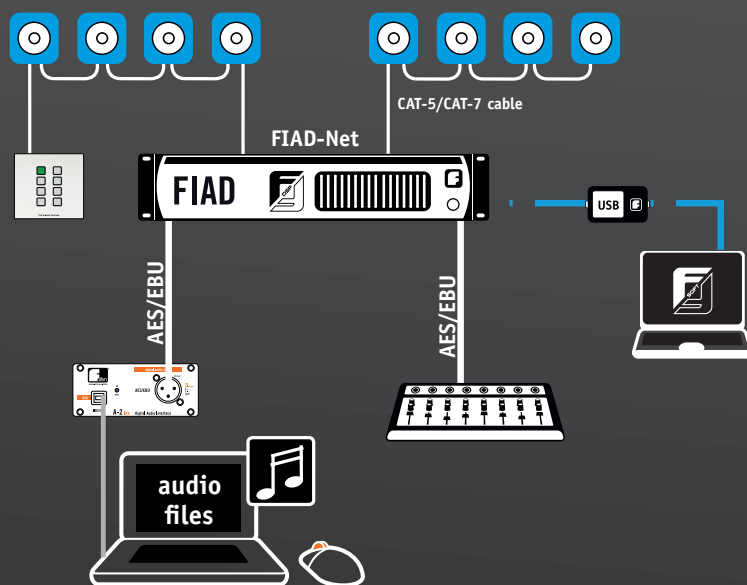
- 24 Fohhn LX-100 line source loudspeakers in special freestanding housing with integrated floor stands and cable ducts
- 18 LX-10 compact speakers mounted at a precise distance of 5,10 meters from the ceiling
- All speakers in custom silver powder coating to blend unobtrusively with the surroundings
- Four subwoofers AS-40
- 12 DSP amplifiers with 46 channels altogether
- IOSONO IPC 100 Processor
- IOSONO Spatial Audio Workstation (SAW)
- Digital Audio Workstation Nuendo

FULLY DIGITAL

NETWORKABLE AND REMOTELY CONTROLLABLE.

FIAD: SEVERAL ACTIVE, DSP-CONTROLLED COMPACT LOUDSPEAKER SYSTEMS.

ONLY ONE CABLE!



FULLY DIGITAL SOUND DESIGN.

A-2 LIVE - DIGITAL AUDIO INTERFACE



To ensure faultless transmission of digital audio signals from a computer to the FIAD system without any reduction in quality, Fohhn's new A-2 live digital audio interface provides a perfect solution.

The high quality, 2-channel USB interface has galvanically isolated AES/ EBU digital outputs with XLR connection, ensuring that interference, hum, poor transfer quality and low output levels can be avoided.



FIAD FOHNN INTELLIGENT AUDIO DISTRIBUTION

FIAD – A FULLY DIGITAL SOUND SYSTEM AND AUDIO NETWORK SYSTEM AT THE SAME TIME.

Fohhn Intelligent Audio Distribution (FIAD) has been specially developed as a result of demands for increasingly compact, lightweight but powerful active loudspeaker systems. As technology constantly evolves, products are becoming both smaller and more powerful. Flexibility is also key, as is the need for optimal use of resources.

With this in mind, the challenge facing Fohhn engineers has been how to successfully integrate two speakers, an amplifier, power supply, DSP processors and three connectors for power, audio and network into increasingly compact loudspeaker housing, without compromising on performance or quality. The additional expense and aesthetic problems resulting from having to fit three different cable harnesses to each compact loudspeaker have also proved an issue. However, detailed research by the Fohhn development team has culminated in a solution that is significantly more than just another active loudspeaker system: FIAD is a fully digital networkable system comprising a master input/output module and compact active loudspeakers that are connected to the master module via a single CAT-5/CAT-7 cable.

THE MAIN FACTS AT A GLANCE

CAT-5/ CAT-7 cable

- Power supply, digital audio signal, network/ remote control all carried out by one Twisted-Pair-Cable (starting with CAT-5). For mobile applications, a hard-wearing CAT-5 cable (for example with Neutrik etherCON RJ-45 connector) is recommended.

FIAD active speakers

- several FIAD models: Tops and Subs, each equipped with a integrated Class D amplifier (2x 300 W), DSP's, input connector RJ-45 (for CAT-5/CAT-7 cable), output connector RJ-45 (for CAT-5/CAT-7 cable). Signal LED for status, communication and identification (Sign). Monitoring with integrated microphone.

FIAD Master

- digital audio inputs (AES/EBU), digital FIAD-NET outputs, a central power supply feeding the active loudspeakers and Fohhn-Net connections for remotely controlling all connected FIAD-NET devices via laptop and Fohhn Audio Soft, FR-10 wall panel or touch panel.



THE LATEST INNOVATION FROM GERMANY'S WIRELESS SOUND REINFORCEMENT PIONEERS.

For the last 20 years, Fohhn engineers have played a leading role in the development of innovative wireless loudspeaker systems. Consistently pioneering work has led to the emergence of high performance solutions that are Made in Germany.

With the latest EasyPort series, Fohhn presents a new modular generation of battery-powered loudspeaker systems that once again have the potential to become classics.

**100%
WIRELESS**



EASYPORT SERIES

EASYPORT – MODULAR FLEXIBILITY. THE NEXT GENERATION OF WIRELESS LOUDSPEAKER SYSTEMS FROM GERMANY.

The new EasyPort loudspeaker series is remarkable both for its modular construction and for its extensive acoustic re-engineering.

All models are equipped with very high performance 1" compression drivers with short horn and high efficiency 8" cone loudspeakers. This results in even better speech intelligibility, sound dispersion and dynamics. The modular concept enables most currently available radio microphone systems to be integrated – either supplied with the unit or fitted afterwards. A CD Player with USB port can also be fitted at any time. Highly reliable and easy to use, the systems can operate for up to 20 hours on one battery charge.

EasyPort models have been re-named as follows:
**FP-11 Modular, FP-22 Modular, FP-22 Slave
and FP-Media.**

* Applies to FP-11 Modular and FP-22 Modular without additional Slave box
** 9.5" radio receiver. For more information on suitable/Fohhn recommended radio microphone systems, contact us on 0049 7022 933230 or email info@fohhn.com

THE MAIN FACTS AT A GLANCE

- No mains power or cabling required*
- Can be used without any prior technical knowledge
- Compatible with most currently available radio microphone brands**
- CD Player with USB port can be built in
- Compact and lightweight
- Protection against feedback
- Extremely long battery life (up to 20 hours)
- Excellent speech intelligibility
- Natural sound quality
- Built-in digital controller for maximum operating reliability
- Intelligent battery management, protection against total discharge and overload

APPLICATIONS

→ Outdoor events, promotions, sporting events, outdoor worship, seminars, product presentations, small performances, theme parks, broadcast/TV, theatrical effects etc.

ARTICLE NUMBERS

FP-11 MODULAR	1407-D0990
FP-22 MODULAR	1408-D0990
FP-22 SLAVE	1410-D0000
FP-MEDIA	1409-D0900

EASYPORT SERIES

THE NEXT GENERATION OF WIRELESS SPEAKER SYSTEMS.



FP-11 MODULAR

→ Easy-to-use, self-contained, wireless loudspeaker system for professional sound applications.

The FP-11 Modular is compact, lightweight and takes less than two minutes to set up. No previous technical knowledge is required. The battery will last for up to 20 hours after a single charge. Equipped with state-of-the-art, 2-way loudspeaker technology, the FP-11 Modular guarantees natural sound and high levels of speech intelligibility when used for almost any kind of application – both indoors and outdoors.

The components

Processor controlled 40W amplifier with high efficiency, high performance battery, 3-channel mixer with 2-band tone control, high performance 8"/1" loudspeaker components. High frequency 1" compression driver with short horn. Maximum SPL 114 dB (peak).

Add a radio microphone system and CD Player as required

A 9.5" slot accommodates a standard radio microphone system receiver. A CD Player with USB connection can also be built in. These components can also be added at a later date if required.

Radio microphone system options

The FP-11 Modular is equipped with a 9.5" slot ready to accommodate a radio microphone receiver. All commonly available brands are compatible e.g. Sennheiser, AKG, Shure, Beyerdynamic and others. These can be included at extra cost. A customer's own receiver can also be built in by prior arrangement. The receiver's front panel controls can be accessed from the rear of the loudspeaker unit.

CD Player options

A high quality, programmable CD Player with entry slot and lit LCD display can be built in at any time. The CD Player is suitable for playing standard and MP3 CDs and is equipped with a USB port that enables data files stored on a Flash drive also to be played. An infrared remote control is supplied.

Optional accessories

Padded carrying case, rain cover, tripod stand, wall bracket.



FP-22 MODULAR

→ Battery-powered, modular loudspeaker system for high quality, wireless reproduction of speech and music.

Perfect for achieving natural, high quality sound with quick and easy set-up. Wherever it's needed. No power or cables. No prior technical knowledge needed. Can be operated for up to 20 hours on a single battery charge.

The components

Processor controlled 60W amplifier with high efficiency, high performance battery, 4-channel mixer with 2-band tone control, high performance 8"/1" loudspeaker components. High frequency 1" compression driver with short horn. Maximum SPL 125 dB (peak). Integral digital controller – charges battery. Quick charge mode: up to 80% capacity within 6 hours.

Build in two radio microphone systems and a CD Player as required

9.5" slots accommodate two standard radio microphone system receivers. A CD Player with USB connection can also be built in. These components can also be added at a later date if required.

Radio microphone system options

The FP-22 Modular is equipped with 9.5" slots ready to accommodate up to two radio microphone receivers. All commonly available brands are compatible e.g. Sennheiser, AKG, Shure, Beyerdynamic and others. These can be included at extra cost. A customer's own receivers can also be built in by prior arrangement. The receivers' front panel controls can be accessed via a sealed flap. It is also possible to fit one radio mic receiver and one transmitter (e.g. pocket transmitter or in-ear). This enables the summed signal from one EasyPort FP-22 Modular to be sent to another FP-22 system.

CD Player options

A high quality, programmable CD Player with entry slot and lit LCD display can be built in at any time. The CD Player is suitable for playing standard and MP3 CDs and is equipped with a USB port that enables data files stored on a Flash drive also to be played. An infrared remote control is supplied.

Optional accessories

Padded carrying case, rain cover, tripod stand, wall bracket.



FP-22 SLAVE

→ The FP-22 SLAVE is an extra passive speaker system that connects to an FP-22 Modular, enabling the sound coverage to reach additional areas and larger numbers of people.

Using an optional Speakon cable, the FP-22 Slave can be connected to an existing FP-22 Modular unit. This provides the necessary power for the Slave. The unit is equipped with a special 2-way crossover with high frequency protection. Its design and sound capability corresponds to that of the FP-22 Modular.



FP-MEDIA

→ The FP-MEDIA is a compact active loudspeaker that can be networked. It has a built-in 2-channel mixer and a processor controlled 100W amplifier.

Designed for professional quality reproduction of speech and music, this system can be up and running in no time. The elegant loudspeaker is intended for both mobile and fixed installation use in AV applications, conferences and presentations.

The high quality 2-way system is equipped with a powerful 8" cone speaker and a 1" high frequency compression driver with short horn. The FP-Media is outstanding for its clear sound, excellent speech intelligibility and effective resistance to feedback. Its integral mixer has a balanced microphone input, (XLR, 15V phantom power), a line input and 2-band tone control. Integral processor control protects the system from overload.

Asymmetrical housing with a 55° angle means that the system can also be used as a floor monitor. A built-in 36mm tripod flange and M8 thread inserts for fixing the unit to a wall bracket or tripod stand enable optimal positioning of the speaker box.

The FP-Media housing is coated with a durable black paint. A tough metal front grille with acoustic foam prevents damage to the internal components. The recessed carrying handle and optional carrying bag make transporting the system simple and safe.

EASYPORT SERIES

THE NEXT GENERATION OF WIRELESS SPEAKER SYSTEMS.

YOUR GATEWAY TO A PERFECT PRESENTATION. INNOVATIVE TECHNOLOGY . MADE IN GERMANY.

EASY SET-UP AND SIMPLE OPERATION.

EasyPort speaker systems are quick and easy to set up. Two minutes and you are ready to go. Simply set up the EasyPort, switch on and speak into the microphone. The clearly laid out controls on the back of the unit are extremely user friendly and no prior technical knowledge is required in order to operate the system.

AN INDISPENSABLE COMPANION FOR ANY EVENT.

EasyPort systems are compact and lightweight. Recessed handles and practical carrying bags (optional) make them easy to transport.

FEEL SECURE.

The integral digital controller ensures maximum operating reliability, prevents total battery discharge or overloading and charges the battery within 6-8 hours (FP-22 Modular).

READY FOR ACTION, EVEN IN THE HARSHTEST WEATHER CONDITIONS.

The various EasyPort models are all made from high quality birch plywood and are coated with a durable 2K lacquer. For use in adverse conditions involving rain or sand for example, an optional rain cover is available to protect the components. The systems can also be supplied, on request, with a special weather resistant polyurethane coating. The durable, weather resistant nature of the polyurethane combined with the excellent sound qualities of the wood provides the best of both worlds.

DEFINED CONTOURS – FUNCTIONALITY AND DESIGN.

EasyPort's functional system design does not include any fancy details. Precisely calculated, statistic-based dimensions generate a design that is both robust and easy on the eye. This is why timeless linear shapes are a central component of our development philosophy.

COLOURS THAT SET THE RIGHT TONE.

With the right colour, even the most beautiful structure is able to enhance its individuality more vividly. When selecting a colour for your speakers, the possibilities are virtually unlimited. A full range of RAL colours is available to suit any preference.

EQUIPPED FOR THE FUTURE.

EasyPort systems can be upgraded at any time, with the addition of a radio microphone receiver or CD Player for example. Several EasyPort systems can be combined. Batteries, radio microphone systems and CD Players can be quickly and easily changed as required. The high quality wooden housing can also be repaired, the colour touched up and a new foam front panel fitted if necessary. As a German company, we pride ourselves on using wood, which is sustainable, rather than throw-away plastics or MDF.

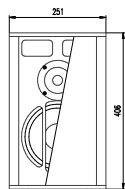
Fohhn staff are always happy to answer any questions you may have about the numerous possibilities of our EasyPort systems. Contact us via e-mail: info@fohnn.com, or telephone **0049 7022 933230**.

EASYPORT SERIES

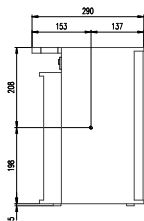
THE NEXT GENERATION OF WIRELESS SPEAKER SYSTEMS.

FP-11 MODULAR

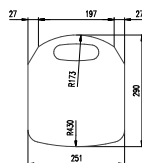
Front view



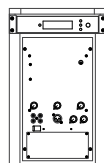
Side view



View from above



FP-11 Rear view

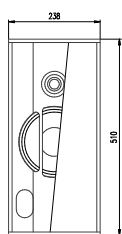


Loudspeaker stand

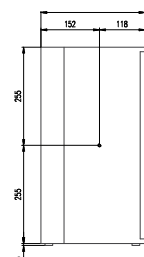


FP-22 MODULAR

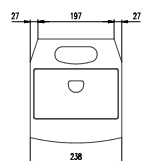
Front view



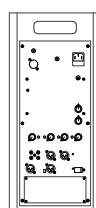
Side view



View from above



FP-22 Rear view



WHP-1



SHP-2

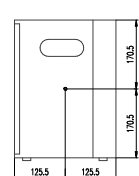


FP-MEDIA

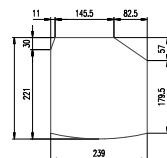
Front view



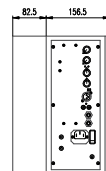
Side view



View from above



FP-Media Rear view



WHP-2



SHP-1



WMH1



SHM-1



	FP-11 Modular	FP-22 Modular	FP-22 Slave	FP-Media
Electro-acoustical features				
Acoustic design	active, battery-powered loudspeaker system, 2-way, bass reflex	active, battery-powered loudspeaker system, 2-way, bass reflex	passive loudspeaker system 2-way, bass reflex	multifunctional, active loudspeaker system 2-way, bass reflex
Components	8"/1" calotte with short horn	8"/1" compression driver with short horn	8"/1" compression driver with short horn	8"/1" compression driver with short horn
Operating mode	active, battery power operation, Class-H	active, battery or AC power operation, Class-H	passive (for operation with FP-22 Modular)	active, Class-AB
power rating (nominal) ^[1]	—	—	120W	—
Sensitivity (@1m, peak)	114 dB	125 dB	125 dB	120 dB
Frequency range ^[5]	80 Hz – 20 kHz	65 Hz – 20 kHz	65 Hz – 20 kHz	70 Hz – 20 kHz
Nominal dispersion (h x v) ^[6]	80° x 80°	100° x 100°	100° x 100°	100° x 100°

The manufacturer reserves the right to make technical modifications according to legal regulations stipulating the continual improvement of product features. This equipment conforms to standards EN 61000-6-1, EN 61000-6-3 and EN 60065. We reserve the right to alter the specifications without notice. [1] according to IEC-60268-5 long term, [5] -10 dB under anechoic halfspace-conditions, [6] horizontal x vertical at -6 dB, [7] net weight without optional equipment

	FP-11 Modular	FP-22 Modular	FP-22 Slave	FP-Media
Features				
Enclosure	birch plywood cabinet, plastic feet, 1 handle	birch plywood cabinet, plastic feet, 1 handle	birch plywood cabinet, plastic feet, 1 handle	asymmetric, multifunctional, birch plywood cabinet, plastic feet, 1 deep-set handle, 55° setup angle as a monitor
Speaker stand pole	—	—	integral, ø 36 mm	integral, ø 36 mm
Mounting devices	2x M8 mounting devices for U-bracket SHP-1	2x M8 mounting devices for U-bracket SHP-2	2x M8 mounting devices for U-bracket SHP-2	2x M8 mounting devices for U-bracket SHM-1
connections	—	—	Speakon NL-4 input	—
Standard colour	black textured paint	black textured paint	black textured paint	black textured paint
Frontal design	acoustic foam	acoustic foam	acoustic foam	acoustic foam
Dimensions (W x H x D)	250 x 410 x 290 mm	240 x 510 x 270 mm	240 x 510 x 270 mm	239 x 341 x 251 mm
Optional features				
Wireless microphone system	built-in 1x 9.5" wireless receiver	built-in 1-2x 9.5" wireless receiver	—	—
CD Player	retrofit	retrofit	—	—
Optional colours	all RAL colours	all RAL colours	all RAL colours	all RAL colours
Electronic performance				
Amplifier (music)	40 W	60 W	—	100 W
EQ	bass, treble (shelving)	bass, treble (shelving)	—	bass, treble (shelving)
Processor function	autolimiter/subsonic	autolimiter/subsonic automatic proximity filter	—	autolimiter/subsonic
Connectors				
Mic input	3-pole XLR input socket	3-pole XLR input socket	—	3-pole XLR input socket
Line inputs	2x RCA, stereo sum to mono	2x RCA, stereo sum to mono	—	1x 6,3mm jack 2x RCA, stereo sum to mono
Line input	—	XLR socket	—	—
Line outputs	2x RCA jacks	2x RCA jacks	—	—
Line output	—	XLR socket	—	—
Mixer inputs	1x ext. mic sym. 1 kOhm 1x int. wireless mic 10 kOhm 2x line RCA 10 kOhm	2x ext. mic sym. 2 kOhm 1x int. wireless mic 10 kOhm 2x line RCA 10 kOhm 1x line XLR sym.	—	1x mic, XLR sym., 1 kOhm 1x Line 10 kOhm ground lift switch
Phantom power	12 volts	12 volts	—	15 volts
Outputs (for recording or stacking)	2x line RCA jacks/600 ohms	2x line RCA jacks/600 ohms 1x XLR sym.	—	1x 6,3mm jack, 600 ohms
12V output	—	12V DC out for external equip., pin ø 2,1 mm	—	—
output for FP-22 slave	—	Speakon NL-4	—	—
Power supply				
230 V AC	external power supply for recharging	integrated power supply for recharging, IEC cable fuse, 1A MTR (5 x 20 mm)	—	IEC input socket fuse 1,25A T (5 x 20 mm)
Rechargeable battery	12V/ca. 7,2 Ah	12V/ca. 7,2 Ah	—	—
Operation time approx.	8 - 20 hours	8 - 18 hours	—	—
	with CD Player	with CD Player		
Speaker stand pole	unscrewable stand adapter SA-2	unscrewable stand adapter SA-2	—	—
CD Player	built-in, with IR remote control	built-in, with IR remote control	—	—
Weight ^[7]	11.5 kg	14 kg	9 kg	9 kg
	without CD Player	without CD Player		
Speaker stand pole	integral, ø 36 mm	integral, ø 36 mm	—	—
CD player	- (retrofit)	- (retrofit)	—	—
Weight ^[7]	10,5 kg	12,9 kg	—	—



SLOVAK PHILHARMONIC IN BRATISLAVA.

Two Linea Focus LFI-220 systems are installed in the main hall of Bratislava's »Reduta« Concert Hall that dates from 1773. Supplied in a special colour, they blend perfectly into the historic surroundings.

Two separate beams can be generated from each loudspeaker. One of these is directed onto the stalls, while the other provides simultaneous coverage for the balcony. Presets enable individual beams to be switched off as required, for example if the balcony is not in use.

The loudspeakers are linked to the hall's internal emergency evacuation system and have been set up for speech applications and small musical events. For larger musical performances, two mobile XS-30 active subwoofers are added.





SPORTING SUCCESS.

Fohhn systems are also employed in sports grounds, arenas and gyms, guaranteeing the best possible sound results. Pictured here, Stadion Essen, Schwenningen Ice Stadium and the Mokdong Ice Rink, Korea.

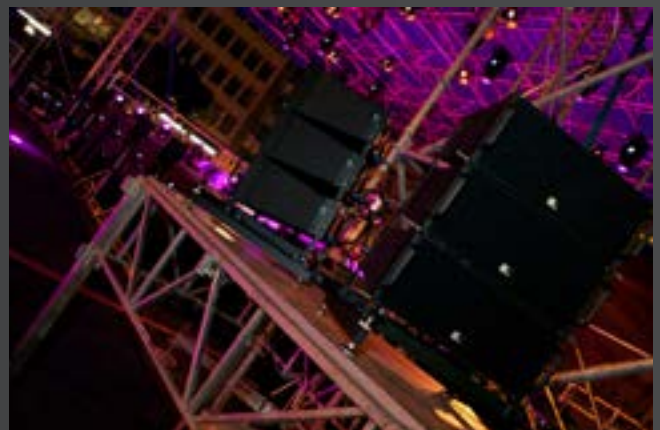




LIVE!

Fohhn systems excel on every level, appealing to audiences, artists and event organisers alike. Perfect for any musical genre, whether rock, classical or jazz, as shown here at the Notti di Luce in Bergamo and the Jazz Festival Nürtingen.





THE SHOW MUST GO ON!

Pictured above: Subway to Sally tour 2011 with Perform PT-9 line array systems and PS-9 subwoofers.

Small Pictures: Notti di Luce, Bergamo, Italy. Electronically steerable subwoofer array featuring PS-9 systems with cardioid configuration. Groups of three PT-8 line array modules are used as front fill and out fill systems.

CLEARLY UNDERSTOOD.

Fohhn Linea Focus guarantees excellent clarity, dynamics and speech intelligibility in lecture theatres, churches, parliament buildings, halls and conference rooms.



Lecture hall in the Heidelberg University is equipped with two Linea Focus LFI-220 systems.



Town Hall, Lyon, France

Two white Linea Focus LFI-220 systems are installed in the main hall at Heidelberg University (Neue Aula).



SOUNDS PERFECT. is **PERFECT.**



FOHHN® AWARDS.






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.

Visit us at **www.fohhn.com**



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