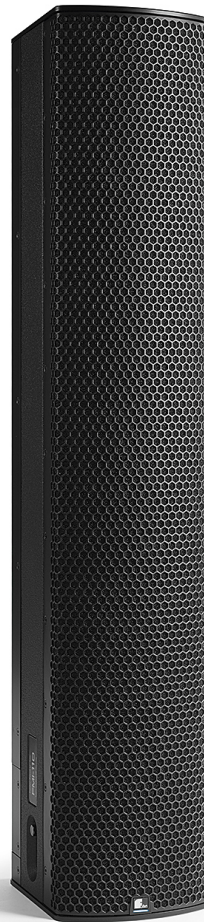


# Focus

## FM/I-110

Active high frequency module with Beam Steering,  
16 × 1" compression driver, 1 kHz – 20 kHz, approx.  
224 × 1285 × 274 mm



# Focus FM/I-110

The FM/I-110 is a powerful, active high frequency module from the Focus series. As with all products in this series, the Fohhn Beam Steering Technology provides real-time, software-controllable dispersion and eliminates the need for mechanical tilting. Designed for demanding mobile applications and fixed installations, the FM/I-110 achieves high sound pressure levels and excellent speech intelligibility. It can be flexibly combined with the low-mid modules FM/I-400.



## Main features

- Available as FM variant for mobile applications or FMI variant for fixed installations
- 16 × 1" compression driver with waveguide
- 16 integrated class-D amplifiers with DSP
- SPL max.: 148 dB (108 dB @ 100 m)
- Frequency range: 1 kHz – 20 kHz
- Convenient real-time control of vertical dispersion with Fohhn Audio Soft
- Vertical beam width: 0° to 90°, sound inclination angle: -40° to +40° (adjusted in 0.1° increments)
- Fohhn Two Beam Technology (two separate dispersion beams)
- Fohhn Side Lobe Free Technology (suppression of side lobes)
- Acoustic centre displaceable over entire line length
- Low system latency of only 0.95 ms (AES/EBU)
- Easy rigging thanks to the Fohhn Quicklock System
- Integration in evacuation systems according to DIN EN 60849 / VDE 0828
- Green power standby mode



Available with the following color options



Black

Equipped with the following Fohhn technologies



Fohhn Beam  
Steering  
Technology



Fohhn Source  
Division  
Waveguide



Fohhn DSP  
inside



Flyable product



Special colors  
optional



Ball impact  
resistant

# Technical data

## Electroacoustic features

acoustic design	electronically steerable line array speaker
components	16 × 1" horn loaded compression driver, neodymium motor
maximum SPL	148 dB (108 dB @ 100 m)
frequency range	1 kHz – 20 kHz
operational mode	active, 16-channel DSP amplifier, class D
horizontal dispersion	90°
vertical beam width, digitally controlled	0° – 90° in 0.1° steps
vertical inclination angle, digitally controlled	-40° – +40° in 0.1° steps
acoustic centre	0% (at the bottom) to 100% (at the very top)

## Features

enclosure	multiplex birch plywood, Aluminium
front design	steel grille in enclosure colour, backed by acoustically transparent foam
protection grille	steel grille, ball impact resistant, powder-coated
weight	approx. 39 kg
standard colours	black or white powder coating
mounting points	4 × M8 threads, integrated rigging system
dimensions (W × H × D)	approx. 224 × 1285 × 274 mm

## Optional features

optional colours	RAL Classic / NCS / Pantone on request
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## CAAD simulation data

simulation data	EASE
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## Electronic features

amplifier type	Pure Path Digital PWM
audio inputs	2 independent line inputs with automatic priority, transformer-balanced
audio outputs	2 × link
amplifier power	16 × 120 W
DSP channels	16
frequency response	20 Hz – 20 kHz
gain	28 dB
input sensitivity	1.4 V
signal/noise ratio	>105 dB/A
protective circuit	soft start, overtemperature, short circuit, overload
power supply	100 V – 240 V AC 50/60 Hz, power supply with Power Factor Correction
power consumption	standby 10 W, max 800 W
power factor (PFC)	> 90 %
fault current	< 1,0 mA
low power	Green Power Standby Mode
emergency current	external USV 230V 1000W 16A
temperature range	0 – 40 °C
cooling	temperature-controlled fan
weight (electronics)	approx. 5,5 kg
	2 × link

## Controller

digital signal processors	2
independent limiters	4
gain	-80 dB – +12 dB
volume	-80 dB – +12 dB
EQ	10-band parametric EQ, Gain, +/-12 dB, Frequenz 10 – 20 kHz, Q 0.1 – 100
selective 3-band limiting	bass / mid / high
delay	0,01 – 350 ms, or 3,4 mm – 120 m
X-over	Linkwitz-Riley 4. order, 24 dB/octave, high pass 10 Hz – 20 kHz, low pass 10 Hz – 20 kHz
system latency	0.95 ms
filter technology	56-bit double precision
AD	24 bit / 96 kHz

## Remote control and remote monitoring

remote control	Fohhn Audio Soft, Fohhn-Net
remote monitoring	temperature, protect, signals, power supply, Fohhn Net, Fohhn Audio Soft, pilot tone
fault message contact	relay 2 × changeover
simulation beam	Fohhn-Net, Fohhn Audio Soft

## Connections

audio inputs	1 × line input, XLR, transformer balanced
mains connections	1 × Powercon in, 1 × Powercon out
Fohhn Net	1 × RJ-45 Neutrik in, 2 × RJ-45 Neutrik out
audio outputs	2 × XLR, balanced

## Display LEDs

network control	receive / send remote control LED
power on / off (standby)	green = on, red = standby, red flashing = fault

power rating (nominal/program): according to IEC-60268-5

power rating (peak); maximum SPL: 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

sensitivity: 2,83 V at 8 ohms (2 V at 4 ohms, 4 V at 16 ohms) at a distance of 1 m under anechoic fullspace conditions

frequency range: -10 dB under anechoic halfspace-conditions

weight: net weight without optional equipment

Intelligent Protection Circuit (IPC): voltage-controlled semiconductor circuit protecting the HF-driver against overload highly effective and with very short attack time

cut-off frequency: -10 dB under anechoic halfspace-conditions with speaker preset

heat dissipation: pink noise, 6 dB crest, 1/4 Pmax

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