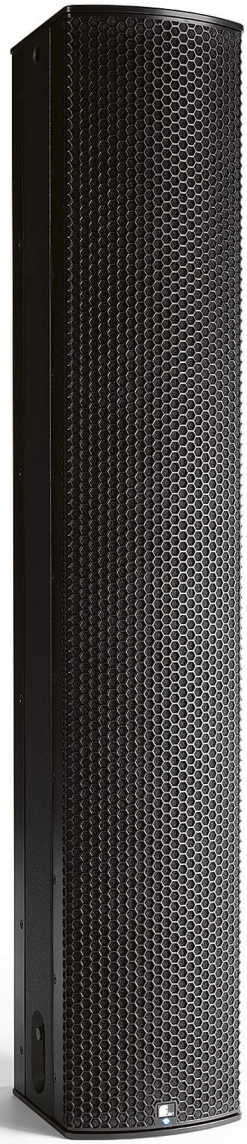
Fohhn

Data sheet

Focus Modular

DFM-110

Active high frequency module with Beam Steering, 16 × 1" compression driver



AES/EBU

AIREA®





Focus Modular DFM-110

DFM-110 is an active high frequency module with Fohhn Beam Steering technology. It can be flexibly combined with the low-mid modules DFM-400. The new generation of our renowned Focus Modular system is now fully digitized and provides further developed Fohhn DSP and digital signal connections. Acoustically redesigned and equipped with even more powerful drivers, DFM delivers excellent, audiophile sound and best speech intelligibility. A high-quality and high-performance solution for larger conference rooms, theaters and even open-air concerts. And all of this with an enclosure that is just about 22 cm wide and can be flown straight and integrated seamlessly thanks to beam steering.

Main features

- 16 × 1" compression drivers with 1.75" voice coil, hornloaded with waveguide
- 16 integrated class-D amplifiers
- Optimized Fohhn DSP structure inside
- Fully digital signal flow from input to amplifier
- Q-SYS Plugin available in combination with Fohhn NA-4 or ABX-6
- Max. SPL single module: 148 dB (108 dB @ 100 m)
- Vertical dispersion controlled in real time via Fohhn Audio Soft
- Vertical beam width: 0° to 90°, sound inclination angle: -40° to +40° (adjusted in 0.1° increments)
- two separate beams can be controlled
- Fohhn Side Lobe Free Technology
- Easy rigging thanks to the Fohhn Quicklock System

Available with the following color options

Black

Equipped with the following Fohhn technologies

Fohhn Beam Steering Technology

Fohhn Airea

Fohhn DSP inside

Flyable product

Special colors optional

Auto Power Save

Possible input interfaces for this product

AES/EBU

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For detailed information about all Fohhn technologies, color options and connections, please visit **www.fohhn.com/en/technologies**

Technical data

Electroacoustic features	
acoustic design	electronically steerable line array speaker
components	16 × 1" (1.75" VC) compression drivers Hornloaded Waveguide Design
maximum SPL	148 dB (108 dB @ 100 m)
operational mode	active, 16-channel DSP-amplifier, Class-D
frequency range	1.7 kHz – 16 kHz
horizontal dispersion	90°
vertical beam width, digitally controlled	0° – 90° in 0.1° increments
vertical inclination angle, digitally controlled	-40° – +40° in 0.1° increments
acoustic centre	0% (bottom) to 100% (top) movable, both beams

Physical features	
enclosure	multiplex birch playwood, Aluminium
dimensions (w × h × d)	224 × 1285 × 274 mm
weight	41 kg
standard colours	textured paint / powder coating, black
front design	hexagonal perforated steel grille in enclosure colour, backed by acoustically transparent foam
protection grille	steel grille, ball impact resistant, powder-coated
mounting points	integrated flying tracks, 4 × M8-threads at rear

Optional features	
optional colours	RAL Classic / NCS / Pantone on request

CAAD simulation data	
simulation data	EASE, Fohhn Designer

Electronic features	
amplifier type	Pure Path Digital PWM
audio inputs	AES/EBU
audio outputs	AES/EBU
amplifier power	16 × 120 W
DSP channels	16
frequency response	20 Hz – 20 kHz
signal/noise ratio	>105 dB/A
auto power save	adjustable from 1 s to 12 h, or never active
protective circuit	soft start, overtemperature, short circuit, overload
power supply	100 V – 240 V AC 50/60 Hz, power supply with Power Factor Correction (PFC)
inrush current	7,5 A (230 V) / 3,8 A (115 V)
power consumption	500 W RMS, idle 30 W, standby 10 W
heat dissipation	140 W, 482 BTU/h, 121 kcal/h
temperature range	0 – 40° C
cooling	temperature-controlled fan
weight (electronics)	5.5 kg

Controller	
digital signal processors	2
independent limiters	6
FIR filter	yes
gain	-80 dB – +12 dB
EQ	10-band parametric EQ, gain, +/-12 dB, frequency 10 – 20 kHz, Q 0.1 – 100
selective 3-band limiting	bass / mid / high
limiter / compressor	yes
noise gate	yes
delay	Input: 0 – 350 ms (0 – 120 m); Output: 0 – 640 ms (0 – 220 m)
X-over	Linkwitz-Riley 4th order (24 dB / octave), high pass 10 Hz – 20 kHz, low pass 10 Hz – 20 kHz
system latency	1.2 ms
band-specific time constants	yes
filter technology	80-bit double precision
input	AES/EBU 32 kHz – 96 kHz, 16/24 bit
input DSP processing	yes

Remote control and remote monitoring	
remote control	Fohhn Audio Soft, Fohhn Net
remote monitoring	temperature, protect, signals, power supply, Fohhn Net, Fohhn Audio Soft
simulation beam	Fohhn Net, Fohhn Audio Soft

Connections and controls	
controls	mains switch (remote-controllable via Airea Connect)
mains connection	1 × PowerCON mains in, 1 × PowerCon mains out
inputs	1 × etherCON Airea Connect / stack link, 1 × XLR AES/EBU, 1 × etherCON Fohhn Net
outputs	1 × etherCON stack link, 2 × XLR AES/EBU, 2 × etherCON Fohhn Net
signal inputs	AES/EBU 32 kHz – 96 kHz, 16/24 bit
signal outputs	AES/EBU link-out from input

Display LEDs	
Sign LED (connector panel and front grille)	blue = power on, blue flashing = sign
status LED	green = ready, red = protect / standby, red flashing = fault
receive / send LED	receive / send remote control LED
audio error LED	red = no AES/EBU
remote power LED	green = Airea Connect active, remote power on
on (stack link) LED	green = stack link active

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, with speaker preset
frequency range: -10 dB under anechoic halfspace-conditions with speaker preset
weight: net weight without optional equipment
heat dissipation: pink noise, 6 dB crest, 1/4 Pmax
nominal dispersion: -6 dB compared to the main dispersion axis

Fohhn Audio AG
Großer Forst 15
72622 Nuertingen
Germany

Phone +49 7022 93323-0
Fax +49 7022 93324-0
www.fohhn.com
info@fohhn.com



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