Data sheet



Focus Modular DFM-400

Active low-mid module with Beam Steering, 32 × 4"









AES/EBU

AIREA





Focus Modular DFM-400

DFM-400 is an active low-mid module with Fohhn Beam Steering technology. It can be flexibly combined with the high frequency modules DFM-100 / DFM-110. 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

- 32 × 4" long excursion speakers, neodymium
- 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: 134 dB (94 dB @ 100 m)
- Frequency range: 55 Hz 1,7 kHz
- 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



White

Equipped with the following Fohhn technologies



Possible input interfaces for this product

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Technical data

Electroacoustic features

acoustic designelectronically steerable line array speakercomponents32 × 4" long excursion speakers, neodymiummaximum SPL134 dB (94 dB @ 100 m)operational modeactive, 16-channel DSP-amplifier, Class-Dfrequency range55 Hz - 1.7 kHzhorizontal dispersion90°vertical beam width, digitally controlled0° - 90° in 0,1° incrementsvertical inclination angle, digitally controlled-40° - +40° in 0,1° incrementsacoustic centre0% (bottom) to 100% (top) movable, both beams		
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operational modeactive, 16-channel DSP-amplifier, Class-Dfrequency range55 Hz - 1.7 kHzhorizontal dispersion90°vertical beam width, digitally controlled0° - 90° in 0,1° incrementsvertical inclination angle, digitally controlled-40° - +40° in 0,1° increments	components	32 × 4" long excursion speakers, neodymium
frequency range55 Hz – 1.7 kHzhorizontal dispersion90°vertical beam width, digitally controlled0° – 90° in 0,1° incrementsvertical inclination angle, digitally controlled-40° – +40° in 0,1° increments	maximum SPL	134 dB (94 dB @ 100 m)
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	operational mode	active, 16-channel DSP-amplifier, Class-D
vertical beam width, digitally 0° – 90° in 0,1° increments controlled vertical inclination angle, -40° – +40° in 0,1° increments digitally controlled	frequency range	55 Hz – 1.7 kHz
controlled vertical inclination angle, -40° - +40° in 0,1° increments digitally controlled	horizontal dispersion	90°
digitally controlled		0° – 90° in 0,1° increments
acoustic centre 0% (bottom) to 100% (top) movable, both beams	e ,	-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 × 1636 × 274 mm
weight	42 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

Electronic reduces	
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	150 W, 517 BTU/h, 129 kcal/h
temperature range	0 – 40° C
cooling	temperature-controlled fan
weight (electronics)	6 kg
Controller	
digital signal processors	2
independent limiters	6
independent limiters FIR filter	6 yes
-	
FIR filter	yes
FIR filter gain	yes -80 dB - +12 dB
FIR filter gain EQ	yes -80 dB – +12 dB 10-band parametric EQ, gain, +/-12 dB, frequency 10 – 20 kHz, Q 0.1 – 100
FIR filter gain EQ selective 3-band limiting	yes -80 dB – +12 dB 10-band parametric EQ, gain, +/-12 dB, frequency 10 – 20 kHz, Q 0.1 – 100 bass / mid / high
FIR filter gain EQ selective 3-band limiting limiter / compressor	yes -80 dB – +12 dB 10-band parametric EQ, gain, +/-12 dB, frequency 10 – 20 kHz, Q 0.1 – 100 bass / mid / high yes
FIR filter gain EQ selective 3-band limiting limiter / compressor noise gate	yes -80 dB - +12 dB 10-band parametric EQ, gain, +/-12 dB, frequency 10 - 20 kHz, Q 0.1 - 100 bass / mid / high yes yes
FIR filter gain EQ selective 3-band limiting limiter / compressor noise gate delay	yes -80 dB - +12 dB 10-band parametric EQ, gain, +/-12 dB, frequency 10 - 20 kHz, Q 0.1 - 100 bass / mid / high yes yes input: 0 - 350 ms (0 - 120 m); output: 0 - 640 ms (0 - 220 m)
FIR filter gain EQ selective 3-band limiting limiter / compressor noise gate delay X-over	yes -80 dB - +12 dB 10-band parametric EQ, gain, +/-12 dB, frequency 10 - 20 kHz, Q 0.1 - 100 bass / mid / high yes yes input: 0 - 350 ms (0 - 120 m); output: 0 - 640 ms (0 - 220 m) Linkwitz-Riley 4th order (24 dB / octave), high pass 10 Hz - 20 kHz, low pass 10 Hz - 20 kHz
FIR filter gain EQ selective 3-band limiting limiter / compressor noise gate delay X-over system latency	yes -80 dB - +12 dB 10-band parametric EQ, gain, +/-12 dB, frequency 10 - 20 kHz, Q 0.1 - 100 bass / mid / high yes yes input: 0 - 350 ms (0 - 120 m); output: 0 - 640 ms (0 - 220 m) Linkwitz-Riley 4th order (24 dB / octave), high pass 10 Hz - 20 kHz, low pass 10 Hz - 20 kHz 1.2 ms
FIR filter gain EQ selective 3-band limiting limiter / compressor noise gate delay X-over system latency band-specific time constants	yes -80 dB - +12 dB 10-band parametric EQ, gain, +/-12 dB, frequency 10 - 20 kHz, Q 0.1 - 100 bass / mid / high yes yes input: 0 - 350 ms (0 - 120 m); output: 0 - 640 ms (0 - 220 m) Linkwitz-Riley 4th order (24 dB / octave), high pass 10 Hz - 20 kHz, low pass 10 Hz - 20 kHz 1.2 ms yes

Remote control and remote monitoring

remote control	Fohhn Audio Soft, Fohhn Net
remote monitoring	temperature, protect, power supply, Fohhn Net, Fohhn Audio Soft, AES/EBU signals
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

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