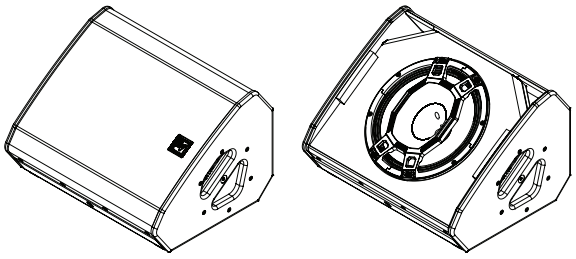
MFX-12MC 12" multi-use coax monitor

- Multi-functional, coaxial, short-throw point source for stage monitoring, FOH, front fill, and side fill
- Rugged tour-grade durability in a lightweight, ergonomic design
- Low profile maximizes audience sight lines
- Switched passive or biamp operation with factory presets for any application
- Range of mounting accessories for live sound and fixed installation



MFX Multi-Functional Monitors deliver a new level of reference performance from compact, two-way, coaxial designs. In addition to their primary use as live sound stage monitors, they can also serve as short-throw, full range sound reinforcement speakers (with or without subwoofer) and are appropriate for a wide range of permanent installations. The internal details of the cabinet were selected in order to maximize internal volume while maintaining a low stage profile to preserve sight lines. The input panel is recessed into the rear of the speaker, protecting connectors within the cabinet envelope. The panel includes NL4 input and loop-through connections, along with a passive/biamp switch.

MFX Multi-Function Monitors are an attractive investment for live sound companies because they can be deployed in multiple system roles, keeping more of the rental inventory working rather than sitting in the warehouse until an appropriate job is booked. EV has created a library of DSP settings to optimize the speakers for specific uses. The recommended MFX monitor amplifier match is the Dynacord TGX or IPX amplifier series. The loudspeaker settings run in Dynacord's SONICUE control software, which loads them into the amplifier DSP section.

The constant directivity waveguide has a narrow pattern when the speaker is used horizontally as monitor, and a wide pattern when the cabinet is oriented vertically for use as a short-throw loudspeaker. The relatively large physical size of the waveguide controls coverage more uniformly and to a lower frequency than competitive models. The dimensions and location of the waveguide interact with the woofer to effectively create a bipole output, enhancing coverage control through the midrange frequencies. This configuration contributes to excellent gain-before-feedback performance. The waveguide also functions as a structural support (standoff) for the grille, even when a lead singer's boot rests directly on the speaker.

The co-axial driver and horn assembly can be uninstalled and re-installed with a 90° rotation, which also rotates the coverage pattern; this is only recommended for install applications.

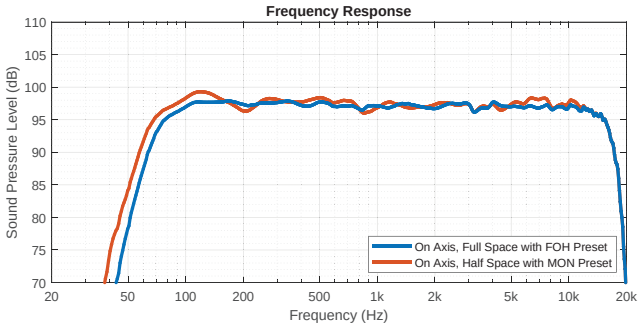
Both models feature an integrated pole cup (neatly located in the side handle recesses) and four M10 suspension points to attach custom U brackets for wall-mount or flown use. Truss clamps, stand mount adapters, and a rigging bar are available for live or permanent installations.

Technical specifications

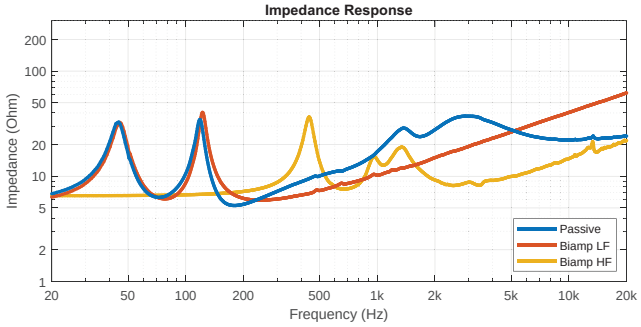
Frequency response (-3 dB)[1]	62 Hz - 18 kHz
Frequency range (-10 dB)[1]	50 Hz - 19 kHz
Rotatable coverage:	60° x 40° FOH, 40° x 60° Monitor
Rec. high-pass frequency:	Use factory preset
Axial sensitivity[2]	97 dB (1 W/1 m)
Max. SPL[2]	135 dB
Power handling[3]	450 W (Continuous), 3000 W (Peak)
Nominal impedance passive:	8 Ω
Nominal impedance biamp LF:	8 Ω
Nominal impedance biamp HF:	8 Ω
Transducer:	CXCA3128-1CA
Connectors:	Neutrik NL4 input with NL4 pass through
Enclosure:	12-18-mm Baltic birch plywood with EVCoat
Logo:	Rotatable
Monitor angles:	35° and 55°
Grille:	1.5-mm zinc plated steel with corrosion resistant coating
Handles:	Two with integrated cup for standard 35-mm pole
Suspension:	Four M10 suspension points located to work with truss clamps, wall mounts, flying brackets and a full range of mounting accessories
Color:	Black (RAL 9005) or white (RAL 9003)
Dimensions (H x W x D):	500 mm x 420 mm x 298 mm (19.7 in x 16.5 in x 11.7 in)
Net weight:	19 kg (41.9 lb)
Shipping weight:	21.2 kg (46.7 lb)

[1]Half-space with monitor preset
[2]Measured one meter on-axis, free field with 12dB crest factor pink noise
[3]Continuous power EIA-426A, peak power 500-hour EV music abuse test

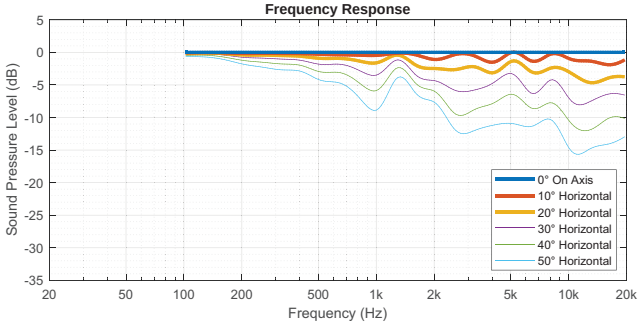
Frequency response:



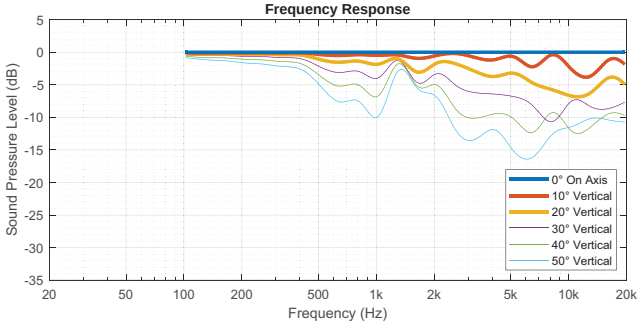
Impedance response:



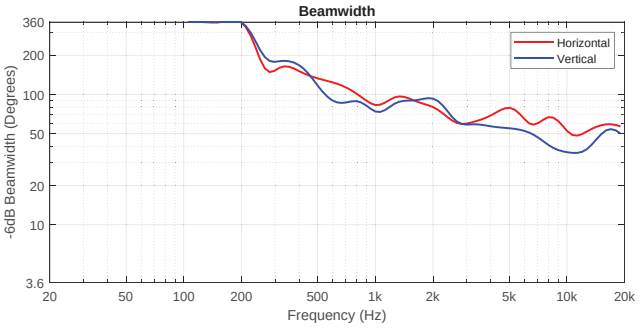
Horizontal off axis frequency response:



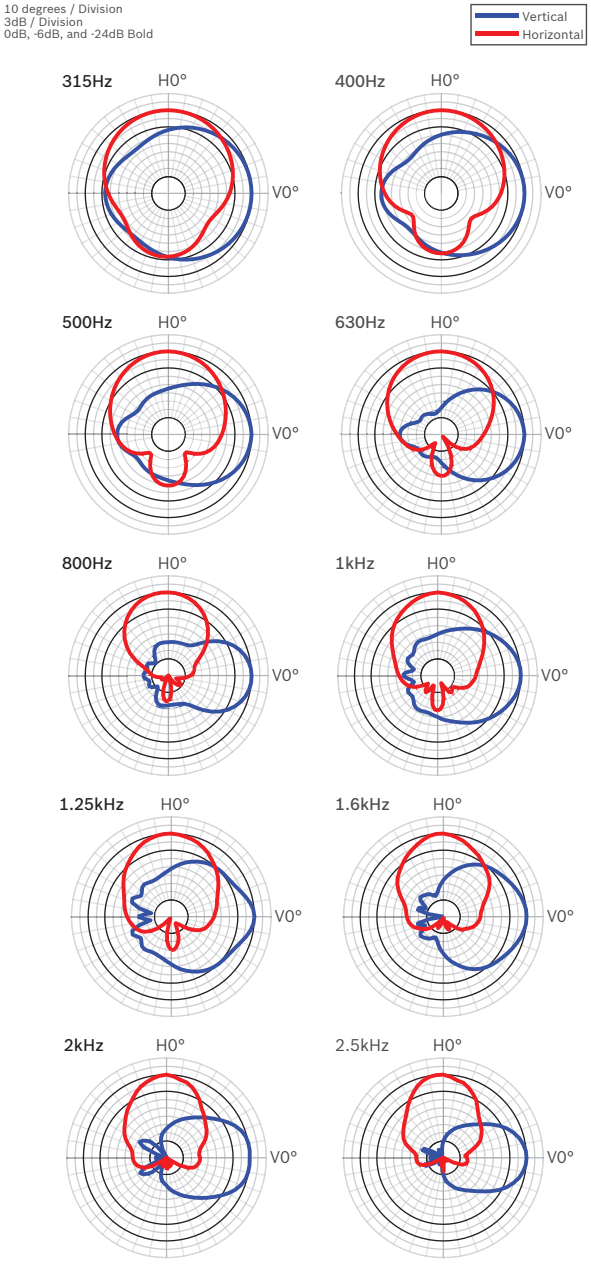
Vertical off axis frequency response:



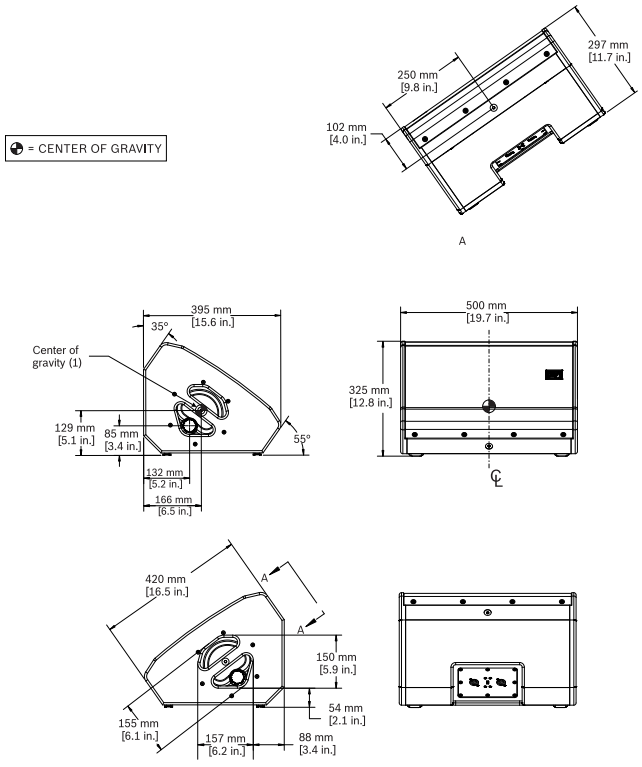
Beamwidth:



Polar response:



Dimensions:



Dimensions: MFX-12MC

1 Center of gravity

Architectural and engineering specifications:
The loudspeaker shall be a two-way system with a narrow coverage pattern when used horizontally as a monitor, and a wide coverage pattern when oriented vertically. The loudspeaker shall support either passive or bi-amplified operation; the electrical configuration is selected by means of a switch on the input panel. The input connector accepts a standard, female NL4-type jack. The input panel includes a second NL4 jack, wired as a pass-through audio output, providing a means to connect as many as four of the same model loudspeakers to the same drive signal(s). The input panel is recessed so that audio connectors are protected within the speaker envelope.
The drive unit is a coaxial system that combines an 8 Ohm, 3-inch voice coil, 12-inch low/mid-frequency unit on the same chassis and magnetic circuit as an 8 Ohm, titanium composite, 3-inch high-frequency compression driver. In passive mode, the crossover design employs filters with quasi 2nd and 3rd order topologies that are phase aligned with compensation for time alignment.
The loudspeaker enclosure shall be constructed of Baltic birch plywood with 12-millimeter and 18-millimeter panel thicknesses and shall be finished with a polyurea coating. The cabinet geometry is designed with monitor angles of 35° and 55° when used horizontally; in this orientation, a constant directivity waveguide mounted in front of the compression driver shall provide nominal coverage of 40° (horizontal) and 60° (vertical). When oriented vertically, the nominal coverage angles shall be 60° (horizontal) and 40° (vertical). If desired, the coaxial transducer can be rotated 90° in either orientation. The loudspeaker cabinet shall include four M10 mounting points for attaching a range of accessories that support temporary or permanent mounting. The cabinet shall accept mounting poles with a standard 35-mm diameter, for mounting in the vertical orientation. The grille shall be constructed from 1.5-mm (16 GA) zinc-plated steel with a corrosion resistant coating, backed with acoustically transparent fabric mesh.
A library of complementary speaker settings must be provided to optimize the loudspeaker output for typical use cases, including ultra-low-latency monitoring or free-field front of house, fill or pole mounting. The system shall be capable of high-level operation with a frequency response of 62 Hz to 18 kHz (±3 dB, using the FOH preset), and a usable frequency range (-10 dB) of 50 Hz to 19 kHz. Axial sensitivity at 1 meter for a 1-Watt input shall be ≥ 97 dB, measured in half space with the monitor preset. Maximum output, on axis, measured free field at 1 meter using 12 dB crest factor pink noise shall be ≥135 dB. Continuous power handling, per EIA-426A shall be 450 Watts. The system dimensions shall be 500 mm (19.7 in.) wide by 420 mm (16.5 in.) high by 298 mm (11.7 in.) deep. Net weight shall be 19 kg (42 lb). The loudspeaker shall be the MFX-12MC-B or MFX-12MC-W from Electro-Voice.

Ordering information

MFX-12MC-B 12" multi-use coax monitor blk
Two-way coaxial 60 x 40 multi-functional speaker system, Evcoat black
Order number **MFX-12MC-B**

MFX-12MC-W 12" multi-use coax monitor wht
Two-way coaxial 60 x 40 multi-functional speaker system, Evcoat white
Order number **MFX-12MC-W**