



EMS-121X passive fullrange loudspeaker

FEATURES AND BENEFITS:

- signature EM Acoustics passive crossover for unprecedented frequency & phase response
- wide enclosure dispersion allows greater areas to be covered from fewer enclosures
- compact and lightweight enclosure
- multiple rigging and mounting options
- cost-effective 12"-based fullrange solution

The EMS-121X is a compact, powerful fullrange loudspeaker intended for a wide variety of applications - both mobile and permanently installed. The EMS-121X is ideal for applications requiring fullrange performance with low weight, or where the extended power of a larger HF drive unit is not necessary. Utilising our latest passive crossover topologies, and the utmost in drive unit technology, this loudspeaker is completely passive yet outperforms many bi-amplified or processed designs. The EMS-121X is ideal for front-of-house duty for small to medium venues, compact stereo systems or as a powerful fill loudspeaker for larger systems.

The EMS-121X is a two-way passive loudspeaker, using a 3" voice coil 12" (305mm) neodymium low frequency transducer. This low frequency drive unit is coupled via the internal passive crossover network to a 1.7" diaphragm, 1" exit neodymium high frequency transducer. This drive unit loads onto an 80H x 60V constant-coverage horn, which yields not only consistent response throughout its operating band across the whole coverage pattern but also strong attenuation outside of this pattern. The result is a loudspeaker with extremely consistent and predictable coverage, as well as stunning sonic detail – and all with the ease of use that passive crossover technology brings.

The drive units are housed within a compact, vented enclosure. The robust enclosure is constructed from premium 15mm (5/8") multi-laminate Birch plywood, and is heavily braced to minimise panel reflection. Twelve M10 threaded fixings are incorporated around the enclosure (3 top, 3 bottom, 2 each side and 2 on the rear) for attachment of optional rigging hardware and safeties. Four M8 threaded fixings on the rear of the enclosure are compatible with OmniMount™ Series 60 and Powerdrive™ Series 100 bracket products. A 35mm polemount socket is provided discretely on the underside for stand mounting. The enclosure also includes a flush bar handle on the rear, and a pair of Neutrik SpeakON™ NL4MPR connectors for input & enclosure link. Lastly, a tough hex-punched grille backed with acoustically transparent foam protects the drive units from damage. The grille can be quickly removed for service purposes. The enclosure is finished in black or white textured paint as standard, however RAL colour matching and weather resistant options are also available.

The EMS-121X requires a single amplifier channel, and should be used with professional power amplifiers capable of delivering 600-800W RMS into an 8-ohm load. For optimal results, the EM Acoustics AQ-3 or AQ-10 power amplifiers should be used.

ENCLOSURE TYPE:

DIMENSIONS (HxWxD):

NET/SHIPPING WEIGHT¹:

FREQUENCY RESPONSE¹:

SENSITIVITY²:

DISPERSION³:

DRIVE UNITS:

POWER HANDLING:

MAXIMUM SPL⁴:

NOMINAL IMPEDANCE:

CROSSOVER:

CONNECTORS:

ENCLOSURE:

RIGGING & HARDWARE:

GRILLE:

OPTIONS:

ACCESSORIES:

SPARE PARTS:

two-way passive, reflex loaded

595 (23.4) x 355 (14) x 342 (13.5) mm/(ins)

19/21kg (41.8/48.4lbs)

70Hz – 20kHz +/- 3dB

99dB

80H x 60V

12" (305mm) neodymium LF cone drive unit

1" (25mm) exit neodymium HF compression drive unit

400W RMS, 800W program

127dB continuous, 133dB peak

8 ohms

asymmetric internal passive

2 x Neutrik SpeakON™ NL4MPR

15mm (5/8") multi-laminate Birch plywood – rebated, screwed & glued.

Finished in impact resistant textured paint

12 x M10 threaded mounting points

4 x M8 threaded points for OmniMount Series 60/Powerdrive Series 100 brackets

1 x flush bar handle on rear

1 x 35mm polemount socket

hex punched steel backed with acoustically transparent foam

Colours/Weather Protection

FC-121v vertical flying cradle

FC-121h horizontal flying cradle

DFB-121 dual enclosure flying plate set

DU-1208 12" drive unit

CDU-1002 1" exit HF compression drive unit

RK-1208 recone kit

RD-1002 replacement HF diaphragm

PX-121X passive crossover assembly

RFG-121X replacement grille/foam

Notes on measurement conditions:

¹Measured on-axis at 2m in an anechoic environment and referenced to 1m.

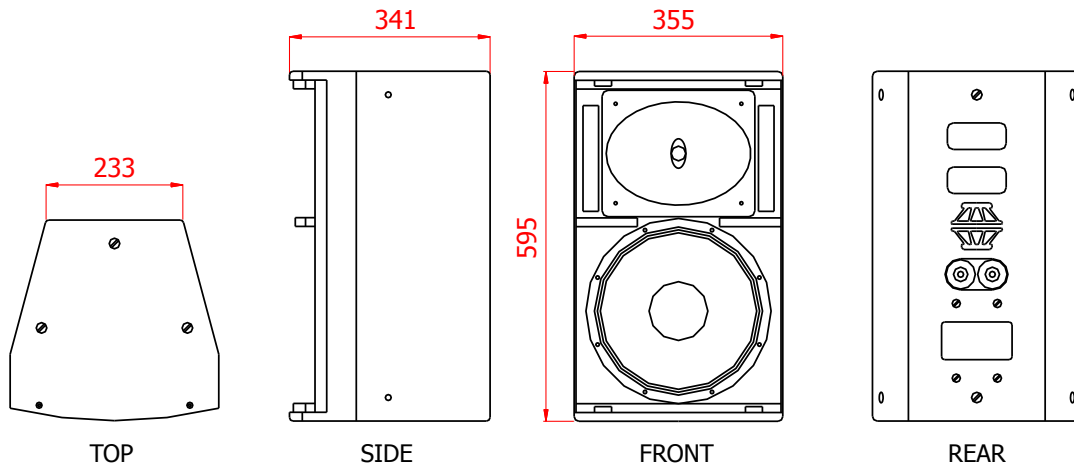
²Measured in half space at 2m with 4W sine wave input and referenced to 1m.

³Nominal dispersion, measured in an anechoic environment and averaged over stated bandwidth

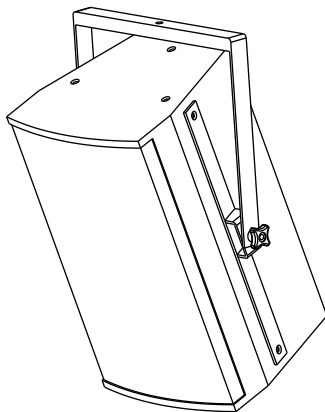
⁴Calculated and verified by subjective listening test of familiar program material.

ENGINEERING DRAWING

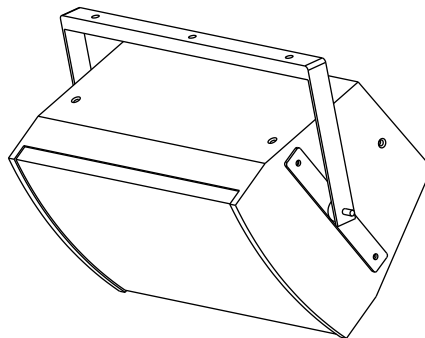
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passive fullrange loudspeaker



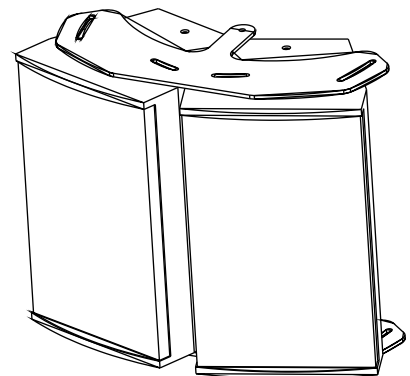
RIGGING ACCESSORIES



FC-121v



FC-121h



DFB-121

ENCLOSURE OPTIONS

EMS-121X enclosures are supplied as standard in black or white. Any RAL colour can be supplied on request (extended lead time and setup charges apply). Weather protection options are also available to give enhanced protection to the loudspeaker when used outdoors for extended periods of time.