

# O-Line

## Micro Line Array with Scalable Resolution

O-LINE™

### Features

- Modular micro line array for maximum deployment flexibility
- Software optimised array configuration for focused sound energy
- Additional DSP optimised functionality for increased coverage consistency and control.
- Sidelobe-free vertical dispersion from the high frequency section
- Ideal for high-quality music reproduction as well as speech
- Architecturally sympathetic design for discreet deployment

### Applications

- Houses of worship
- Museums
- Conference centres, auditoria and lecture theatres
- Transport terminals, shopping malls and sports venues
- Bars and restaurants



O-Line is an award-winning, aesthetically pleasing, modular micro line array designed for a wide variety of architectural applications – from houses of worship to transport terminals. It combines innovative acoustic design with powerful optimisation software to achieve optimum coverage with unprecedented accuracy over a pre-defined area.

In many applications an O-Line array can be driven using only one amplifier channel, with simple EQ and limiting the only processing required.

In many applications an O-Line array can be driven using only one amplifier channel, with simple EQ and limiting the only processing required. It can now also be taken into a new dimension of coverage, consistency and control when used with an iKON amplifier, or with a combination of VIA2004 amplifier and DX4.0 controller, to independently control and power each individual enclosure. This unlocks the full potential of O-Line — further refining coverage consistency and increasing the ability

to ‘dial-out’ the influence of the room by accessing DISPLAY’s ‘hard avoid’ capability and electronically adjustable coverage.

Unlike many DSP ‘steered’ columns, an O-Line array does not produce unwanted vertical sidelobes in the audio band. This is critical in reverberant environments as sidelobes firing above and below the array simply adds to the reverberant energy, impacting on intelligibility. O-Line’s ability to reproduce very high frequencies without sidelobes makes it the ideal solution for both full-range speech and music reproduction in reverberant spaces.

An O-Line array is finished in a neutral light grey that blends into the background of most architectural spaces, with modular design in multiples of four cabinets. Sonically, it is very clean and musical, and capable of surprisingly high output levels for its very small size with 16 cabinets capable of an astonishing 134dB [peak] and a throw distance of up to 40 metres.

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### Technical Specifications

#### O-LINE – ONE MODULE

TYPE	Two-way micro-line array module
FREQUENCY RESPONSE (5)	85Hz-20kHz $\pm$ 3dB -10dB @ 76Hz
DRIVERS	2 x 3.5" (87mm)/1" (25mm) voice coil LF drivers 5 x 0.55" (14mm) soft dome tweeters
RATED POWER (2)	50W AES, 200W peak
RECOMMENDED AMPLIFIER	iK41, iK81, VIA2004
SENSITIVITY (6)	84dB at LF rising to 92dB at HF
MAXIMUM SPL (7)	104dB continuous, 110dB peak
NOMINAL IMPEDANCE	16 ohms
DISPERSION (-6dB)	100° horizontal, 5° vertical
CROSSOVER	2.5 kHz passive
ENCLOSURE	4 litre ported cabinet, moulded in ABS
FINISH	Light grey
PROTECTIVE GRILLE	Light grey perforated steel
CONNECTORS	4 pole socket
PIN CONNECTIONS	+/- in, +/- link out
FITTINGS	Captive inter-connecting bracket assembly 6 x M8 fixings for wall and flying brackets
DIMENSIONS	(W) 246mm x (H) 115mm x (D) 198mm (W) 9.7ins x (H) 4.5ins x (D) 7.8ins
WEIGHT	3.6kg (7.9lbs)

#### O-LINE – ARRAY

NO. OF MODULES	4	8	16
SENSITIVITY (6), (2.83V)	96dB	96dB	102dB
IMPEDANCE	4 ohms	8 ohms	4 ohms
POWER HANDLING (WATTS, AES)	200 cont. 800 peak	400 cont. 1600 peak	800 cont. 3200 peak
MAXIMUM SPL (CONT./PEAK)	116dB/122dB	122dB/128dB	128dB/134dB
MAX COVERAGE DISTANCE	8-12m	16-25m	25-40m
ARRAY LENGTH	0.47m	0.94m	1.9m
ARRAY MASS	14.4kg	28.8kg	57.6kg

##### Notes

- (1) Measured on-axis in half (2pi) space at 2 metres, then referred to 1 metre.
- (2) AES Standard ANSI S4.26-1984.
- (3) Measured in half (2pi) space at 2 metres with 1 watt input, using band limited pink noise, then referred to 1 metre.
- (4) Measured in half (2pi) space at 2 metres using band limited pink noise, then referred to 1 metre.
- (5) Measured on-axis in open (4pi) space at 2 metres, then referred to 1 metre.
- (6) Measured in open (4pi) space at 2 metres with 1 watt input, using band limited pink noise, then referred to 1 metre.
- (7) Measured in open (4pi) space at 2 metres using band limited pink noise, then referred to 1 metre.
- (8) Measured in open (4pi) space at 2 metres with 2.83V input, using band limited pink noise, then referred to 1 metre.
- (9) Calculated at 1 metre.
- (10) Measured in half (2pi) space at 2 metres with 2.83V input, using band limited pink noise, then referred to 1 metre.

##### Trade Descriptions Act

Due to Martin Audio's policy of continuing improvement, we reserve the right to alter these specifications without prior notice. Martin Audio is committed to refining state of the art sound reinforcement, combining in-depth product and field applications research with advanced manufacturing techniques. Every Martin Audio product is built to the highest manufacturing standards and rigorously tested to ensure that it meets the performance criteria specified in the design.

### Architectural Specifications

The loudspeaker shall be a passive two-way, micro line array module. The transducers shall consist of two 3.5" low frequency drivers and five closely-spaced 0.55" dome high frequency drivers coupled to a constant directivity horn. The low frequency transducers shall be sited in the horn walls and have cones with front surfaces that follow the wall contours.

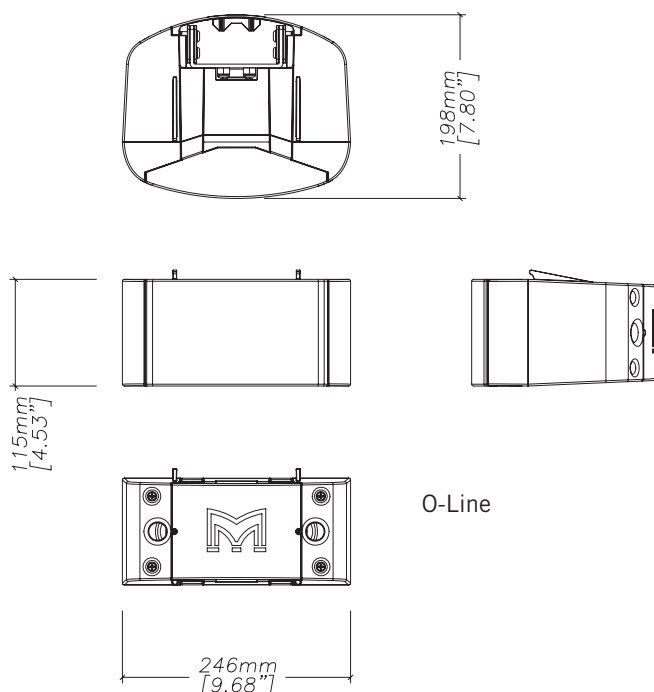
The loudspeaker shall have 100° horizontal dispersion and 5° vertical dispersion. Vertical dispersion of the complete array shall be determined by a combination of the splay angles between adjacent enclosures and dedicated array control software. The on-axis frequency response shall be 85Hz-20kHz  $\pm$  3dB and the loudspeaker shall produce a maximum SPL of 110dB peak at 1 metre.

Input connection shall be made via a 4-pole socket connector with link-out capability. Impedance of a single enclosure module shall be 16 ohms. Impedance of multiple modules shall depend on the specific series/parallel wiring configuration adopted for the installation.

The enclosure shall be constructed from ABS with drivers protected by a perforated steel grille. It shall incorporate an integral captive bracket to assemble an array of up to 24 modules for suspension from a dedicated flying bracket, or up to 16 modules for wall-mounting with a dedicated wall bracket.

Dimensions (W x H x D) shall be 246mm x 115mm x 198mm (9.7in x 4.5in x 7.8in). Weight shall be 3.6kg (7.9lbs).

The loudspeaker shall be the Martin Audio O-Line.



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