

WPS

Optimised Line Array – Three-way, passive line array element



Features

- Compact line array
- Scalable resolution for advanced array control
- External, dedicated, multi-channel Class D amplification
- Industry-leading DISPLAY software interacts with DSP for highly-accurate results
- Fast, integral 3-point flying systems for up to 16 enclosures
- Side and rear handles for ease of handling and setting splayangles
- 100° horizontal constant directivity pattern control

Applications

- Touring sound reinforcement for small and medium-size venues
- Fixed installations in concert halls, theatres, ballrooms and HoW
- Sports stadium and arena installations
- Corporate AV events

The scalable resolution of WPS offers greatly improved coverage consistency and control compared to a standard line array and provides a flexible pathway to advanced array control.

WPS is a versatile, state-of-the-art line array with a peak SPL of 133dB and is designed for small-to-medium scale touring and install applications that require a high output array with reduced weight and footprint. With exemplary coverage consistency and superb sound performance, the flexibility of WPS makes it an ideal system for live sound reinforcement and installations in theatres, concert halls and Houses of Worship. Return-on-investment within a rental company's inventory is maximised by also deploying WPS arrays as front-fill, delay or side-hang support for larger WP systems.

WPS is a passive 3-way system which integrates a high density of drive units in a very compact enclosure. It features 2 x 8" (200mm) LF drivers, 4 x 4" (100mm) midrange drivers and 4 x 1" (25mm) exit HF compression drivers loaded by a moulded HF horn which occupies the full width of the enclosure — defining the 100° horizontal constant directivity coverage pattern of both the HF and midrange sections.

The 4" midrange drivers are compression-loaded to raise efficiency and enter the horn walls via annular slots close to the HF throat to sum effectively with the HF wavefront. In the HF section, four 1" exit compression drivers deliver pristine high frequency sound without the harshness and distortion associated with larger format devices.

The 8" LF drivers are set back behind the walls of the HF horn, with a small volume of air in front of each driver increasing the output at the upper end of its operating range. The LF exit apertures are spaced apart horizontally to provide useful LF horizontal pattern control.

For extended low frequency performance, WPS is designed to be partnered with the SXC118 cardioid subwoofer or its flyable variant, the SXCF118.



WPS

Optimised Line Array – Three-way, passive line array element

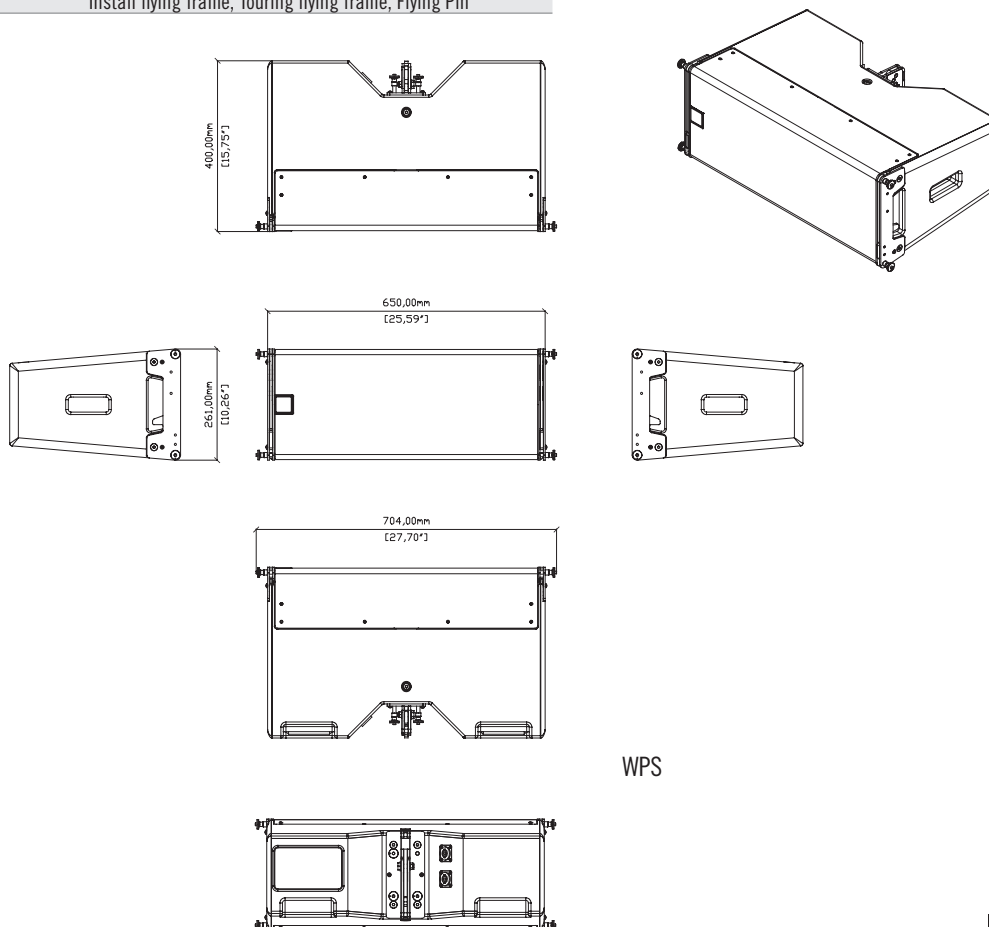


Technical Specifications

TYPE	Three-way, passive line array element
FREQUENCY RESPONSE (5)	70Hz-18000Hz \pm 3dB
DRIVERS	LF: 2 x 8" (200mm)/2" (50mm) voice coil, long excursion, vented yoke, neodymium magnet drivers MF: 4 x 4" (100mm)/1" (25mm) coil, neodymium magnet drivers, compression loaded HF: 4 x 1" (25mm) exit/1.4" (35mm) HT Polymer diaphragm, neodymium magnet compression drivers
SYSTEM AMPLIFIER	iKON iK42
SYSTEM RESOLUTION	1 to 3 enclosures per amplifier channel (iK42)
MAXIMUM SPL (9)	133dB peak
NOMINAL IMPEDANCE	6 ohms
DISPERSION	100° horizontal (-6dB), 120° horizontal (-10dB), 10° vertical
CROSSOVER	520Hz, 1.6kHz internal passive
ENCLOSURE	Vertical trapezoid with 5° wall angle, multi-laminate birch and poplar-ply construction
FINISH	Black textured paint
PROTECTIVE GRILLE	Black HEX perforated steel
CONNECTORS	2 x NL4 type
PIN CONNECTIONS	1+/-1-
FITTINGS	3-point rigging system, 2 x side pocket handles 2 x rear grip handles
FLOWN ARRAY MAXIMUM DIMENSIONS	16 (installation) and 24 (touring) enclosures in a single array (W) 650mm x (H) 261mm x (D) 400mm (W) 25.6in x (H) 10.3in x (D) 15.8in
WEIGHT	27kg (60lbs)
ACCESSORIES	Install flying frame, Touring flying frame, Flying Pin

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.



WPS

WPS

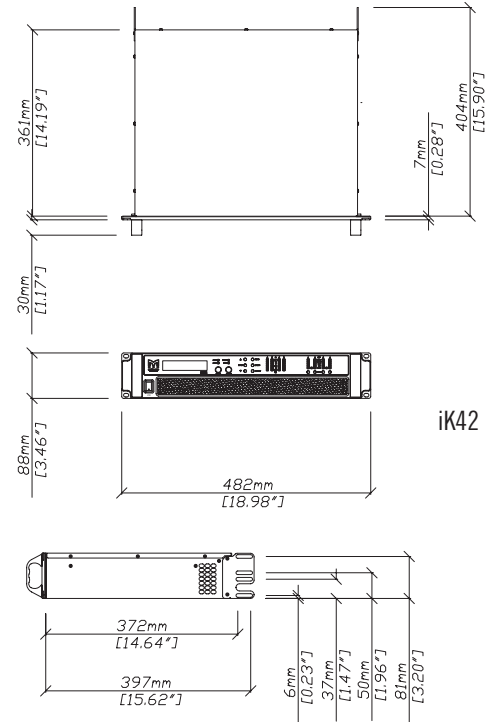
Optimised Line Array – Three-way, passive line array element



Technical Specifications

iK42 Amplifier

General	
TYPE	Four-channel Class D amplifier
POWER OUTPUT	4 x 5000W into 2 ohms, all channels driven 4 x 3000W into 4 ohms, all channels driven 4 x 1500W into 8 ohms, all channels driven
DIGITAL SIGNAL PROCESSING	96kHz DSP on all inputs and outputs
COOLING	Dual vari-speed fans, front-to-back airflow
MAXIMUM AMBIENT TEMPERATURE	40°C (104°F)
Audio Inputs/Outputs	
ANALOGUE IN/LINK (4 CHANNELS)	4 x female, 4 x male Neutrik™ XLR
ANALOGUE INPUT IMPEDANCE	20kΩ balanced to ground
MAXIMUM ANALOGUE INPUT LEVEL	+20dBu
NOMINAL SYSTEM GAIN	32dB
AES3 IN/LINK (2 CHANNELS)	1 x female, 1 x male Neutrik™ XLR, balanced
DANTE™ (4 CHANNELS)	2 x shielded RJ45, primary and secondary
AMPLIFIER OUTPUTS	4 x Neutrik Speakon™ NL4
Control and Monitoring Network	
PROTOCOL	Ethernet
CONTROL APPLICATION	Martin Audio VU-NET™
Power Supply	
TYPE	High performance Series Resonant
AC INPUT OPERATING RANGE	85 – 240V ~ AC, 47 - 63Hz
MAINS INRUSH CURRENT	6A at 115V, 12A at 230V (max for <10ms)
MAINS CONNECTOR	Neutrik 32A Powercon™
Physical	
DIMENSIONS	(W) 483 x (H) 2U/89mm x (D) 357mm (W) 19in x (H) 2U/3.5in x (D) 14.1in incl handles and optional rear support
WEIGHT	12.5kg (27.5lbs)



iKON

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.

Martin Audio Ltd
Century Point, Halifax Road, High Wycombe
Buckinghamshire HP12 3SL, England

Telephone: +44 (0) 1494 535 312
Email: info@martin-audio.com

All information is Copyright © 2019 Martin Audio Ltd.



www.martin-audio.com

WPS



Optimised Line Array – Three-way, passive line array element

SPL Comparisons Vs Competitors

- The core measurement of SPL is measured differently by manufacturers
- Simply put, many competitors now quote figures based upon a crest factor of 4 (12dB peak vs continuous) and often use the highest sensitivity frequency band (typically HF) to derive their figures given that at LF, where the most power is required, even large amplifiers can't swing twice the peak output volts demanded by a doubling in crest factor from 2 to 4.
- Martin Audio quotes the AES industry standard crest factor of 2 (6dB peak vs continuous) and we ensure our partnering amplifiers are capable of delivering the volts and power to achieve our specs.
- Therefore, if people reading specifications do not understand how SPL is measured and the implications it would appear incorrectly that some competitors have significantly higher SPL.
- While absolute comparable data is not available, some element of logic can be applied for the following products to bring a more realistic comparison.

Product	Peak at Crest factor 2 (6dB)	Peak at Crest factor 4 (12dB)
Martin Audio WPS	133dB*	139dB**
d&b Y8	133dB**	139dB*
JBL VTX A8	133dB**	139dB*
L-Acoustics Kara	135dB**	141dB*

*Manufacturer quoted

**calculated