



NEW PRODUCT INFORMATION

PRELIMINARY INFORMATION. SPECS & IMAGES SUBJECT TO CHANGE.

NEW

WLA-1 Series

Hybrid Curvature Array

The science behind the new WLA-1 Hybrid Curvature Array is intense.

With 12" and 15" full-range elements and a breath-taking 21" subwoofer, the new WLA-1 system has been engineered by IAG's International R&D team to be highly versatile - making it perfect for touring and fixed installations.

The drivers inside are very special. Designed and Engineered by Wharfedale Pro UK and manufactured in Europe by Beyma, the full-range WLA-112 and WLA-115 elements use a coaxial design in combination with the exclusive incredible EVO-Fold high frequency waveguide. This design provides consistent dispersion coverage on both the horizontal and vertical planes with the sound radiating from one, singular and coherent, source. Together with the dedicated FIR pre-sets library a flatter phase front is granted allowing outstanding audio quality performance.

This highly engineered solution combats issues that traditional constant curvature two way systems suffer from due to physical spacing between the drive units.

Meanwhile, the WLA-121SUB uses a 21" Beyma driver with a 4.0" Quattro voice coil which results in the most extreme, but controllable flying subwoofer in the Wharfedale Pro line up.

The WLA-1 system can easily be configured in 3 different ways. As a sub-top pole mount, as a flown array with the optional Common Fly Frame, or as a Horizontal system with the optional WLA-1 Link hardware. Such versatility allows for users to deploy the system for multiple activities.

WLA-1 is a unique Hybrid Curvature Array. The science behind its development has been intense, but this extreme engineering results in an extra-ordinary system with massive lows, consistent coverage and phase coherence.



WHAT MAKES THEM GREAT?

- ✓ 12" and 15" coaxial drivers from Beyma
- ✓ 21" Subwoofer with 4.0" Quattro voice coil
- ✓ EVO-Fold waveguide
- ✓ Integral side plate rigging
- ✓ Premium Baltic birch construction
- ✓ Versatile with comprehensive hardware accessories

WHEN ARE THEY AVAILABLE?

WLA-1 Series

Shipping from **MAY 2022**

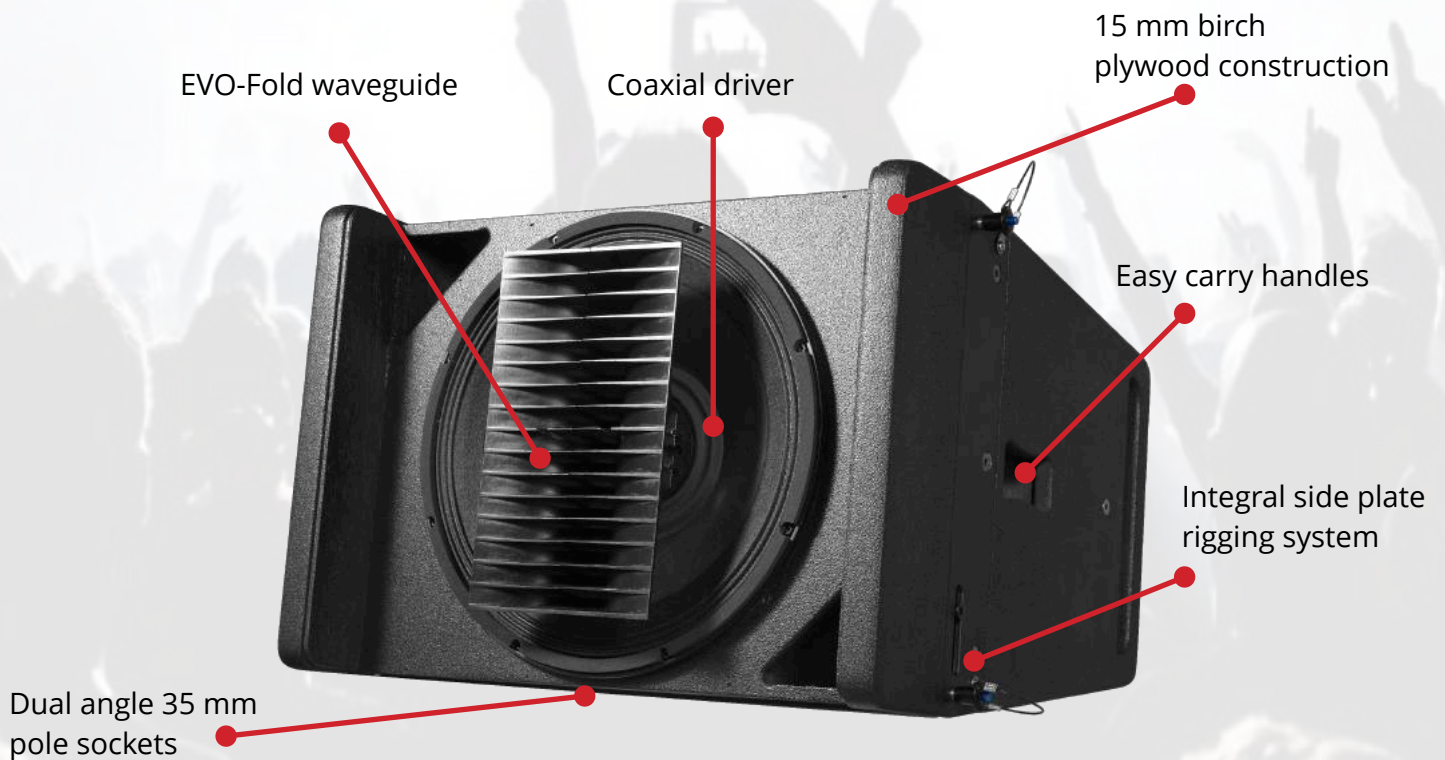
COAXIAL DESIGN



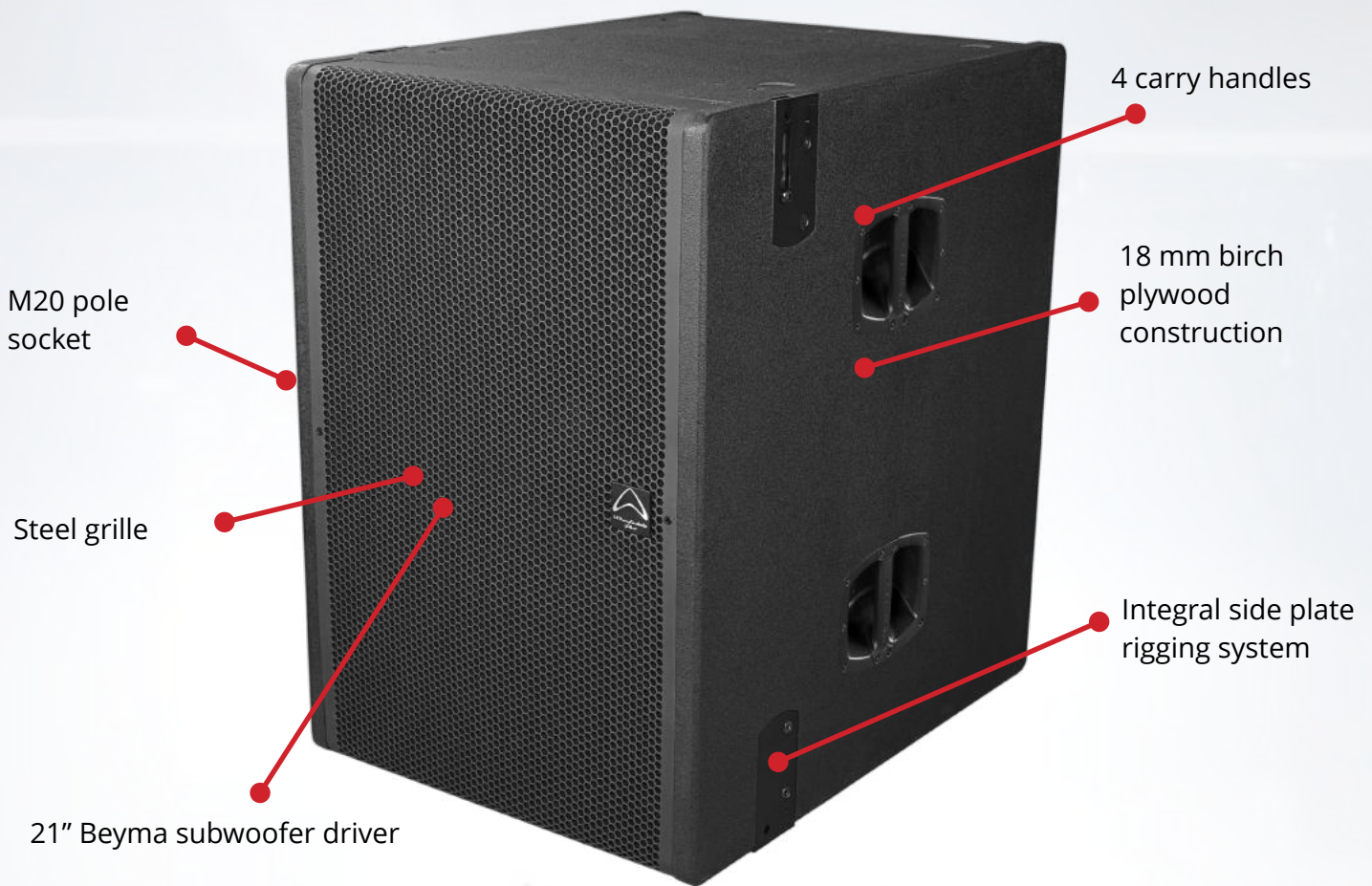
The 12" and 15" elements use coaxial drivers from Beyma in Europe.

This coaxial design gives consistent coverage on both Horizontal and Vertical planes - while competitive traditional constant curvature two way systems do not have consistent coverage in one axis at least by design.

WLA-1 coaxial design gives consistent coverage and is unique.

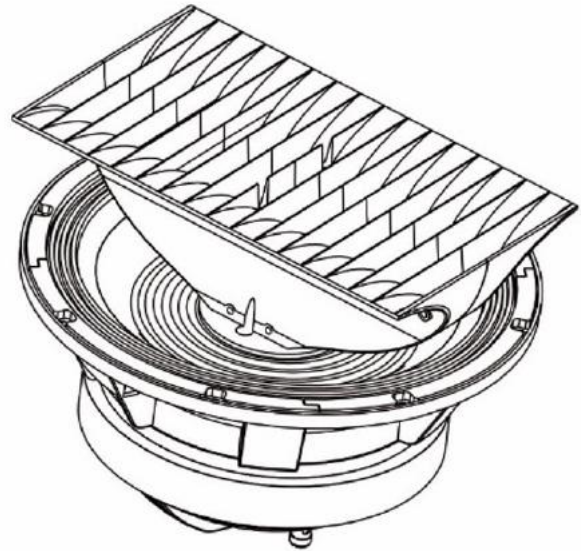
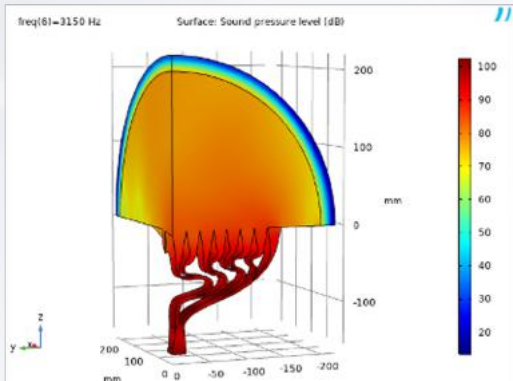


21" SUBWOOFER



EVO-FOLD

A work of art



EVO-Fold reduces the usual phase issues that traditional constant curvature line arrays have due to them having the drive units physically some distance apart in the array. One specially-designed coaxial mid-high frequency driver is loaded to a unique EVO-Fold horn. The EVO-Fold horn combines a unique folded and manifold design. The most advanced FEM technology has been used to create this. The high-mid energy exits produce a uniphase sound in the widest range of frequencies. And visually, the detail of the EVO-Fold waveguide is a work of art.

Patents in progress for Appearance, Utility and Invention. EVO-Fold is an exclusive Wharfedale Pro technology.

CONFIGURATIONS

1



Use an optional **SP-4 pole** to connect the 21" subwoofer to a 12" or 15" element. These have dual angle 35 mm pole sockets to ensure the best coverage for the event.

2



Use the optional **WLA-1 Common Fly Frame** to fly any combination of **WLA-1** as a traditional flown array.



3

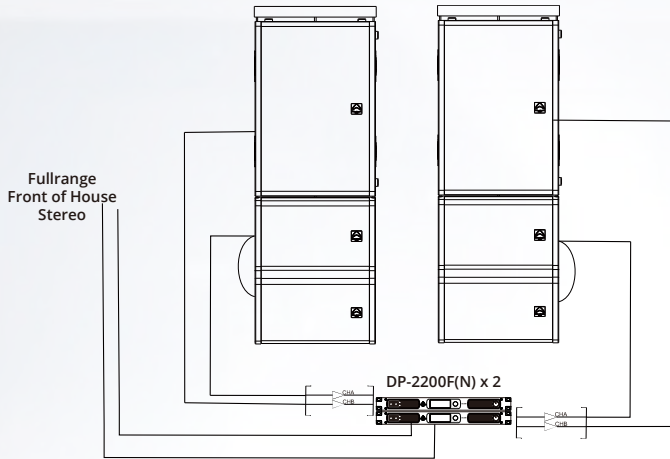


Use the optional **WLA-1 Link** to create a horizontal array with WLA-112 or WLA-115.

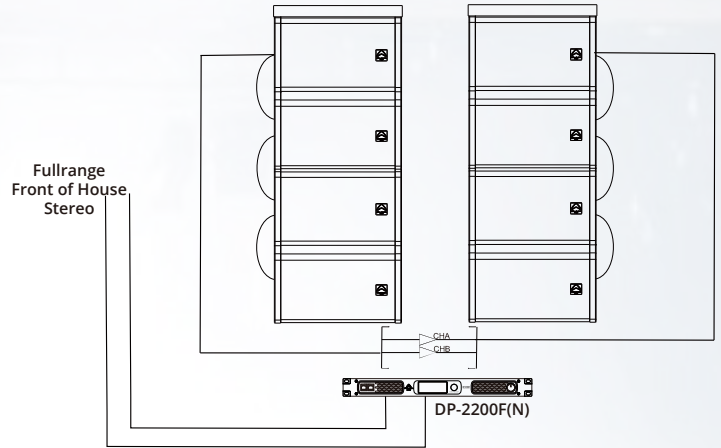
A 3 unit horizontal array has 60 V x 100 H dispersion

SYSTEM IDEAS

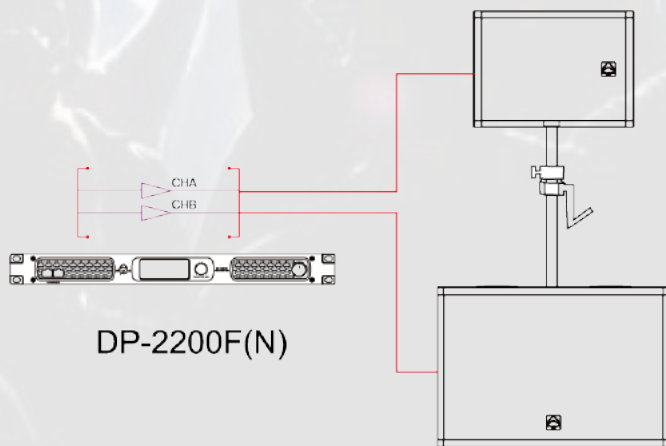
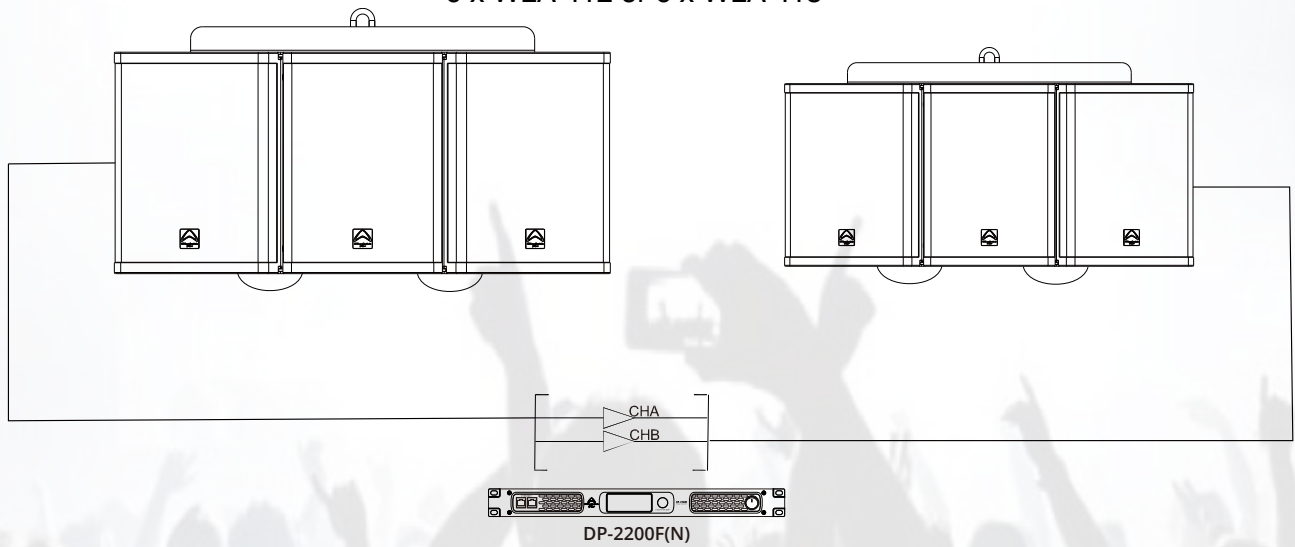
2 x WLA-121SUB and 4 x WLA-112



4 x WLA-112 and 4 x WLA-115



6 x WLA-112 or 6 x WLA-115



SPECIFICATIONS



Model Name	WLA-112	WLA-115	WLA-121SUB
Design	Hybrid Curvature Array	Hybrid Curvature Array	Subwoofer
System Type	12" coaxial passive	15" coaxial passive	21" Subwoofer
Configuration	two-way	two-way	Single Subwoofer
Frequency Response (+/-3 dB)	55 Hz - 20 KHz	42 Hz - 20 KHz	25 Hz - 100Hz
Frequency Range (- 10 dB)	35 Hz - 25 KHz	25 Hz - 25 KHz	18 Hz - 125 Hz
Sensitivity 2.83 V/1 m	101 dB	102 dB	103 dB*
Calculated Maximum SPL @ 1 m	133 dB	135 dB	141 dB*
System Peak SPL	139 dB**	141 dB**	147 dB**
System Rated Impedance	8 Ω	8 Ω	4 Ω
*			level at 1 m under half space conditions using pink noise with crest factor 2, with dedicated pre-set.
**	level at 1 m under free field conditions using pink noise with crest factor 4, with dedicated pre-set.		
Low Frequency Transducer			
Size	312 mm / 12"	388 mm / 15"	545 mm / 21"
Voice Coil Size	101.6 mm / 4.0"	101.6 mm / 4.0"	101.6 mm / 4.0" QUATTRO (4 layers)
LF Frame Material	Aluminium	Aluminium	Aluminium
High Frequency Transducer			
HF Driver Type	Compression Driver	Compression Driver	/
Coil Size (mm / inches)	72.2 mm / 2.87"	72.2 mm / 2.87"	/
Exit Size (mm / inches)	38.1mm / 1.5"	38.1mm / 1.5"	/
Diaphragm Material	Composite titanium / polyester	Composite titanium / polyester	/
Waveguide Type	EvoFold®	EvoFold®	/
Nominal Coverage (HxV)	100° x 20°	100° x 20°	/
Special Features	Copper Demodulating rings in both LF and HF units		Aluminium demodulating ring
	Waterproof LF cone		Waterproof LF cone
	Shared High performing Ferrite magnet system design		Malt Cross® TCS
Power(AES2)			
System Continuous Power (W)	450	500	1600
System Programme Power (W)	900	1000	3200
System Peak Power (W)	1800	2000	6400
Crossover Frequency	1.2 KHz	1.2 KHz	100 Hz
Recommended HPF = BW 18 dB/oct.	30 Hz	25 Hz	20 Hz
Input Connector	2 x speakON	2 x speakON	2 x speakON
Rigging & Hardware:	3 points for rigging	3 points for rigging	3 points for rigging
Vertical Splay angle range:	0°- 5° - 10° - 15°	0°- 5° - 10° - 15°	/
Horizontal Splay angle	15°	15°	/
Optional Accessories	WLA-1 Common Fly Frame	WLA-1 Common Fly Frame	WLA-1 Common Fly Frame
Optional Accessories	WLA-1 Link	WLA-1 Link	-
Stand pole:	Dual Angle 0° / 15°	Dual Angle 0° / 15°	M20 Pole mount
Handles:	2 side / 2 back	2 side / 2 back	2 side (4 pcs)
Enclosure			
Cabinet Type	Trapezoid	Trapezoid	Rectangular
Enclosure Material and finish	15 mm plywood / Rhino Rock	15 mm plywood / Rhino Rock	18 mm plywood / Rhino Rock
Colour	Black paint	Black paint	Black paint
Grille Material & Finish	Powder coated perforated steel	Powder coated perforated steel	Powder coated perforated steel
Dimensions - Unpacked:			
Height Front	332 mm / 13.1"	408 mm / 16.1"	820 mm / 32.3"
Height Rear	246.4 mm / 9.7"	302 mm / 11.8"	/
Width	566 mm / 22.3"	566 mm / 22.3"	566 mm / 22.3"
Depth	465 mm / 18.3"	543 mm / 16.5"	760 mm / 29.9"
Dimensions - Packed:			
Height	661 mm / 26.0"	661 mm / 26.0"	895 mm / 35.2"
Width Front	550 mm / 21.7"	630 mm / 24.8"	656 mm / 25.8"
Width Rear	550 mm / 21.7"	630 mm / 24.8"	/
Depth	410 mm / 16.7"	490 mm / 19.3"	850 mm / 33.5"
Weight			
Net Weight	29.4 Kg	34.5 Kg	70.5 Kg
Gross Weight	31.8 Kg	37.5 Kg	76.5 Kg

Errors and omissions excepted (E&OE) : Wharfedale Pro : 2022

