

# DDX



CLASS LEADING COVERAGE AND CONSISTENCY  
FOR PORTABLE AND INSTALLATION

**Unite Your Audience**  
The Martin Audio Experience





## **DDX – CLASS LEADING COVERAGE AND CONSISTENCY FOR PORTABLE AND INSTALLATION**

Combining the 'point-source' benefits of coaxial designs with the consistent coverage of differential dispersion technology, DDX full-range systems project sound evenly front-to-back while exhibiting wide horizontal coverage close to the speaker — delivering ultimate fidelity and impact to all corners of the audience.

*Exclusively distributed in China by Guangzhou Guidance AV Technology Ltd.*

DDX is a clean, smart design with no compromise between the needs of installation and portability with applications ranging from live sound reinforcement, stage monitoring and corporate events, to installations into sports halls, educational facilities, governmental projects and hospitality.

Comprising four two-way systems, from the ultra-compact DDX8 to the powerful DDX15 the multi-purpose DDX Series raises the performance of loudspeaker systems in its class to a new level.

Each symmetrical, multi-angle full-range enclosure features a user-rotatable horn for horizontal or vertical orientation, and has a screw-free, cloth-backed steel grille. Comprehensive mounting options include wall bracket, eyebolt suspension and pole-mounting. Ergonomic handles at the rear of each full-range enclosure make for easy handling while maintaining clean lines.

All DDX Series enclosures are constructed from durable plywood and finished with hard wearing black textured coating paint.





## ADVANTAGES FOR RENTAL COMPANIES

- Signature sound
- Coverage and consistency
- Quick ROI
- Reliability

## ADVANTAGES FOR SYSTEM INTEGRATORS AND INSTALLERS

- Signature sound
- Coverage and consistency
- More competitive tenders
- Simplicity of installation



## FEATURES

- Multi-purpose, professional, passive full range systems
- Coaxial Differential Dispersion technology achieves 'point source' performance and optimum coverage footprint across the audience plane
- Compact, multi-angle enclosures for vertical and horizontal orientation and stage monitor use
- Drivers can be rotated for vertical or horizontal operation by removing screw-free perforated steel grilles
- Durable plywood enclosures with textured finish
- Integral ergonomic handles
- Removable pole-mount bungs maintain clean lines
- Comprehensive mounting options including pole-mount, wall brackets and rigging inserts
- 8Ω nominal impedance
- Twin NL4 connectors

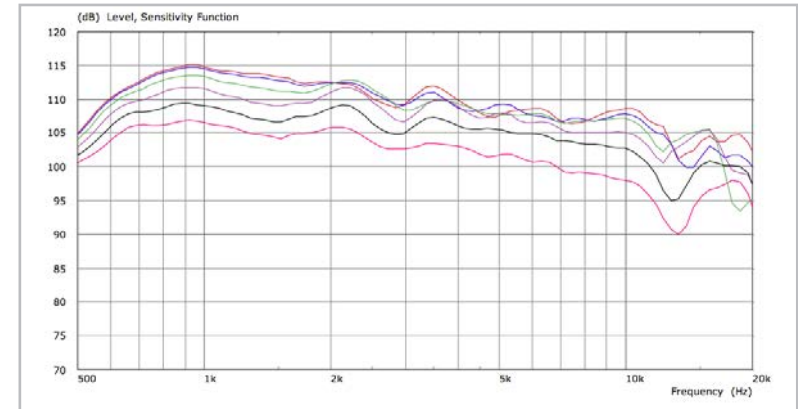
## APPLICATIONS

- Live sound reinforcement and portable systems
- Stage monitors and sidefills
- Theatre sound
- Corporate AV events
- Fixed installations in Government, Education, Museums, Hotels and hospitality



## COAXIAL DIFFERENTIAL DISPERSION™: THE BEST OF BOTH WORLDS

DDX combines the 'point-source' benefits of coaxial designs with the consistent coverage of Differential Dispersion technology. All DDX full-range models feature Martin Audio's unique, patented coaxial differential dispersion™ technology to deliver perfect sound to every member of the audience.



- 0/10/20/30/40/50 degree off-axis measurements of DDX15 (wide-axis). Constant beamwidth maintained up to 20kHz.

## THE COAXIAL ADVANTAGE

Non-coaxial systems can suffer from uneven frequency response in the crossover region because the outputs of the LF and HF sections interfere with each other, causing variations off-axis, depending on the listening position. This is especially true close to the loudspeaker. In contrast, coaxial systems can achieve 'point-source' summation of the LF and HF sections at all positions off-axis, even close-up. This is one reason that coaxial devices are often used for nearfield applications such as studio monitoring.

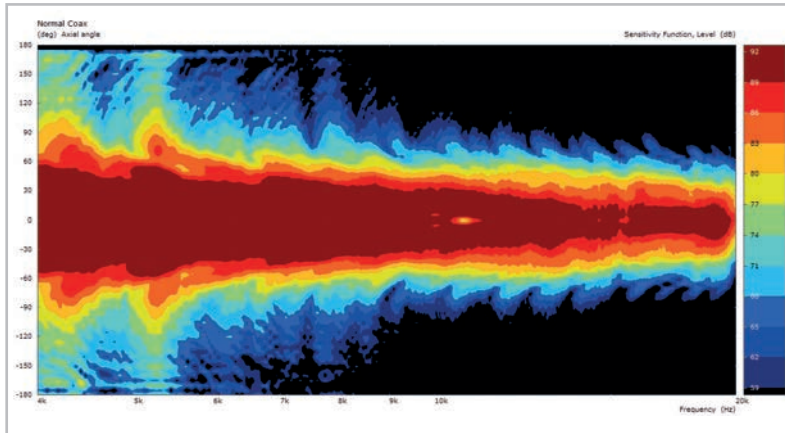
Significantly, until now one disadvantage of conventional coaxial devices has been high frequency beaming, where the high frequency dispersion reduces as the frequency increases. This is primarily because conventional coaxial devices channel high frequencies through a narrow tube in the pole-piece of the magnet system. DDX coaxial devices overcome this by incorporating an innovative static waveguide that merges seamlessly with the unique cone shape — maintaining the dispersion pattern out to very high frequencies.



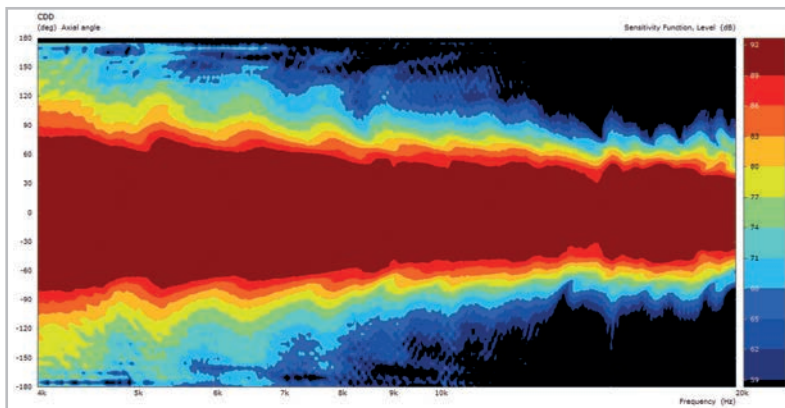
# THE DIFFERENTIAL DISPERSION™ ADVANTAGE

A differential dispersion horn has a 3D trapezoid dispersion pattern which covers a room more evenly than a system with a conventional, fixed-dispersion  $X^\circ \times Y^\circ$  type horn.

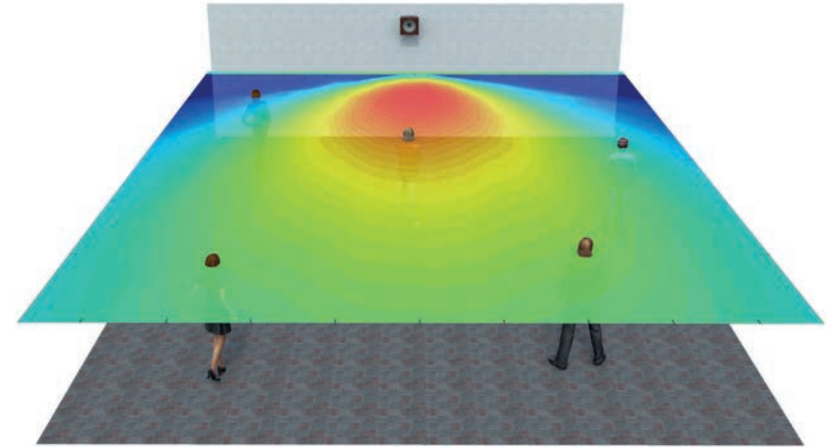
With a conventional  $X^\circ \times Y^\circ$  horn, the speaker is usually placed just above head height and aimed towards the centre of the audience. This produces an imperfect coverage pattern which misses out some areas — particularly side areas close to the loudspeaker. In contrast, DDX coaxial differential dispersion system produces a rectangular coverage pattern to reach all corners of the audience, and wide horizontal coverage is achieved very close to the loudspeaker.



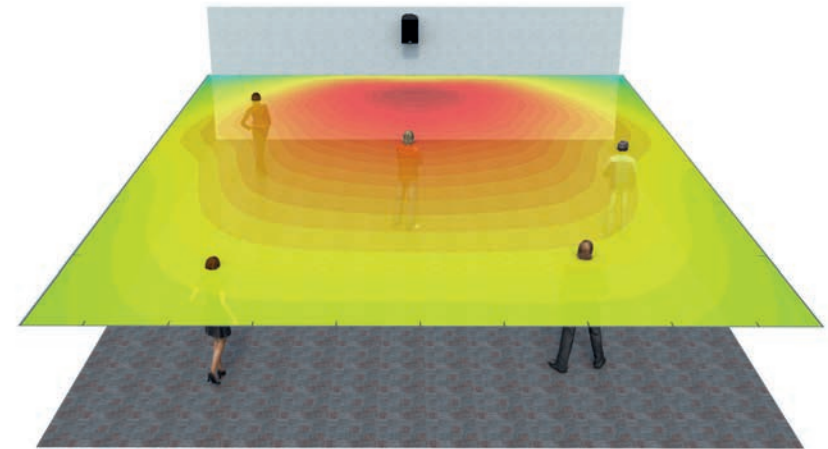
• Conventional coaxial beamwidth



• DDX beamwidth (horizontal)



• Conventional  $X^\circ \times Y^\circ$  coverage



• DDX coverage

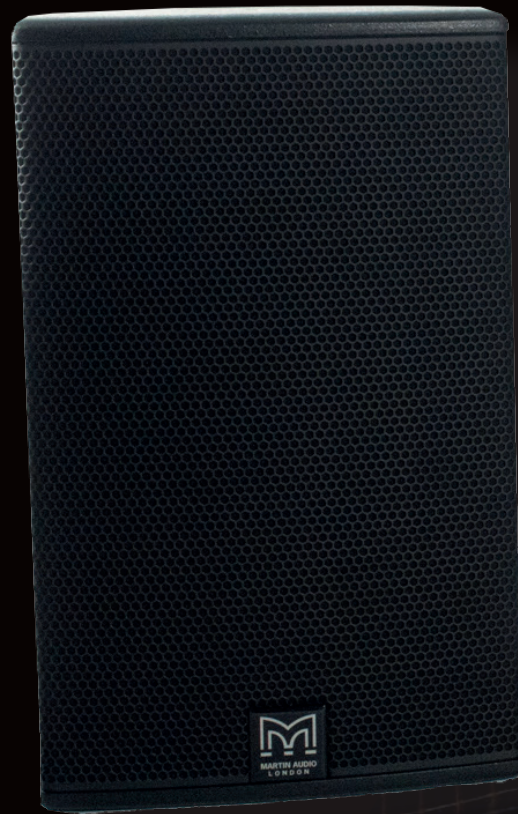
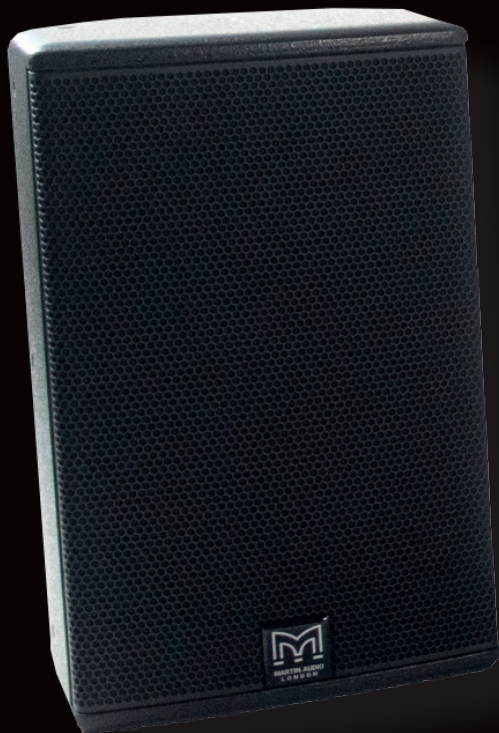
Walking the room, the consistency in frequency response and SPL — both close to the loudspeaker and further back — is exceptional. The improved coverage close-up also means that DDX speakers can be spaced further apart in some installations, reducing overall speaker count, and similarly a reduction in frontfill/infill speakers in a live sound environment.



## DDX FULL-RANGE SYSTEMS

Designed for touring and theatre applications, as well as premium fixed installations, DDX full-range systems represent the ultimate in performance and versatility for compact, passive professional systems.

From the ultra-compact DDX8 to the powerhouse DDX15, DDX full-range systems combine exceptional fidelity with a defined, rectangular dispersion pattern over the audience plane. DDX is truly versatile. Each multi-angle enclosure can be used in either horizontal or vertical orientation, with rotation of the driver easily accomplished by removing the screw-free, protective grille.











## DDX8 ULTRA-COMPACT FULL RANGE SYSTEM

The DDX8 is an ultra-compact two-way passive loudspeaker system with an integrated 8" (200mm) LF/1" (25mm) exit HF Coaxial Differential Dispersion driver which can be easily rotated for horizontal or vertical orientation depending on venue design requirements. Its very small size gives no indication of its high output capability.

As a stand-alone loudspeaker, it has a multitude of professional applications — from distributed sound reinforcement, AV events to frontfill/infill and use as a micro stage monitor, as well as fixed installations in government, education, museums, hotels and hospitality venues.

DDX8 can be supplemented by subwoofers in the SX series and can deliver pristine sound over short and medium throw distances with excellent coverage and consistency. The X8 is constructed from durable plywood and fitted with a screw-free steel grille, M8 inserts for a wall bracket and eyebolt suspension, plus a pole mount socket.



## DDX10 COMPACT FULL-RANGE SYSTEM

The DDX10 is a very compact two-way passive loudspeaker system which utilises a 10" (250mm) LF/1" (25mm) exit HF coaxial differential dispersion driver.

DDX10 is uniquely placed to meet the foreground requirements of a variety of applications that require upfront sound levels from a very compact enclosure. Supplemented by DDX118 or X218 subwoofers will enable the DDX10 to operate as small dancefloor or sound reinforcement system that is remarkably powerful for its size, as well as being extremely portable. The DDX10 is constructed from durable plywood and fitted with a screw-free steel grille, M8 inserts for a wall bracket and eyebolt suspension, plus a pole mount socket.





## DDX12 COMPACT FULL-RANGE SYSTEM

The DDX12 is a high-performance system designed for professional applications that require high output levels from a very compact enclosure. Its high-specification 12" (300mm) LF /1" exit HF coaxial differential dispersion driver delivers perfect sound across the audience over medium throw distances. The LF driver has a 2.5" (65mm) voice coil and efficient motor with an aluminium demodulating ring to minimise distortion, while the HF driver utilises a 1.75" (44mm) polyimide diaphragm and features a low-compression phase plug to reduce non-linearity.

It is fitted with M8 inserts for a wall bracket and eyebolt suspension, plus a pole-mount socket with a removable cover that maintains clean lines when the DDX12 is used in install applications.

## DDX15 HIGH-POWER FULL-RANGE SYSTEM

Ideal for medium-to-large rooms, the DDX15 is a very high-power, passive two-way system designed for professional portable applications and installations that demand the ultimate in sonic performance from a single enclosure. It combines very high output capability with exceptional fidelity and coverage consistency. Its coaxial differential driver unit comprises a powerful 15" (380mm)/3" (75mm) voice coil LF driver and a 1.4" (35mm) exit HF compression driver with a 3" (75mm) pure titanium diaphragm.

Its protective steel grille is a spring-fit into the sides of the enclosure for easy access to rotate the HF horn. The symmetrical, multi-angle enclosure is manufactured from durable plywood and coated in textured black paint. It is fitted with M8 inserts for a wall bracket and eyebolt suspension, plus a pole-mount socket.



## SUBWOOFERS

Martin Audio has a range of subwoofers for low frequency extension to the DDX full range enclosures.



### SX210

The SX210 is a slimline dual-driver subwoofer designed for situations that call for a visually unobtrusive enclosure and suitable for DDX8. It can be used singly, stacked or flown via integral M10 inserts and its ultra-compact size makes it ideal for applications where space is limited. It features dual 10" (250mm)/2" (50mm) voice coil drivers and generously sized low frequency ports for reduced air noise.

The SX210 enclosure is constructed from plywood and finished in black textured paint. An impact-resistant perforated steel grille protects the drivers, and the enclosure has twin ergonomic handles at the rear for easy handling. Rubber feet on the base resist movement and align with recesses in the top surface to assist stacking.



### DDX118

The DDX118 is a compact, high performance subwoofer for indoor use with DDX10 through DDX15 full-range loudspeakers. It extends the low frequency operating range of the combined system down to 42Hz and can be used singly, stacked in omni or cardioid mode, or flown via integral M10 inserts. It features a long-excursion 18" (460mm)/4" (100 mm) voice coil driver in a compact enclosure that has four reflex ports with a large frontal area to reduce turbulent air noise at very high levels. The DDX118 enclosure is built for the road, constructed from durable plywood and finished in textured black paint. A perforated steel grille protects the driver, and the enclosure has a 35mm pole-mount socket in the top surface and two ergonomic side handles.



### X218

The X218 is a dual-driver, high performance subwoofer for use with DDX10 through DDX15. With an operating range of 42Hz-200Hz + 3dB, it produces high output levels with low distortion and can be used singly or stacked horizontally. It features dual 18" (460mm)/4" (100mm) voice coil, long excursion drivers in a reflex enclosure with eight large ports that reduce air turbulence at high output levels.

The X218 enclosure is constructed from plywood and finished in black textured paint. For added versatility in deployment, the X218 is fitted with a 35mm pole mount socket for mounting DDX full-range enclosures, and integral M10 inserts provide for eyebolt suspension of a single enclosure. Ergonomic handles assist ease of handling and the drivers are protected by a perforated steel grille. Rubber feet on the base of the X218 resist movement and align with recesses in the top surface for stable horizontal stacking. Feet are also provided on one side of the enclosure for vertical operation of a single cabinet.



## SYSTEM CONTROL RECOMMENDED

Designed as full-range passive systems, the DDX8, DDX10, DDX12 and DDX15 when combined with the Martin Audio DX0.4 or DX0.6 controllers, the EQ and limiter functions will maximise their capabilities and protect the integrity of the system. Similarly, when a subwoofer is added, crossover and EQ functions can be performed by the DX0.4 or DX0.6

## PRODUCT AMPLIFIER

In all cases we recommend a VIA Series Amplifier for optimised performance.

DDX8: VIA2502 or VIA2004

DDX10: VIA2502 or VIA2004

DDX12: VIA2502 or VIA5002 or VIA5004

DDX15: VIA5002 or VIA5004

SX210 / DDX118 / X218: VIA5002 or VIA5004



## MULTI-PURPOSE FLEXIBILITY

DDX full systems are incredibly flexible and complemented by a comprehensive range of mounting accessories.

Each full-range model features an integral pole-mount socket with a removable cover and multiple M8 inserts for wall-brackets and suspension eyebolts.



8mm eyebolt

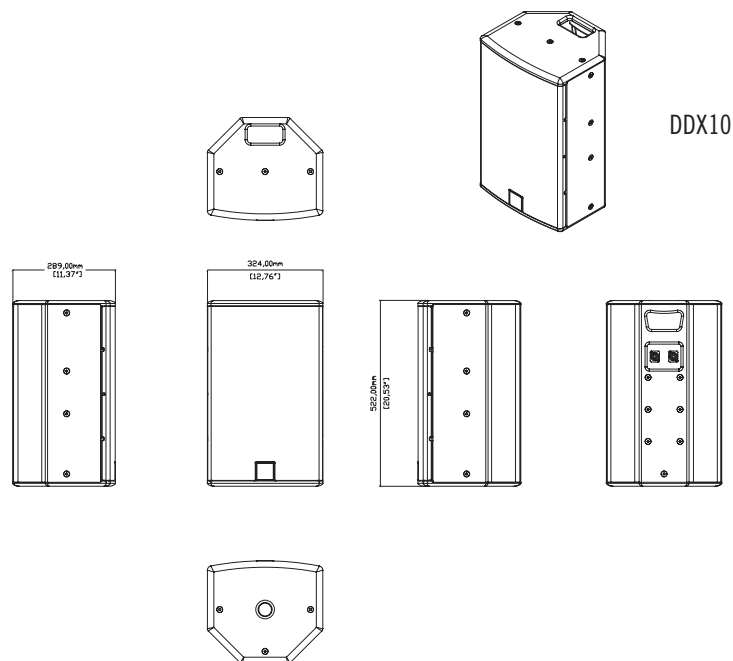
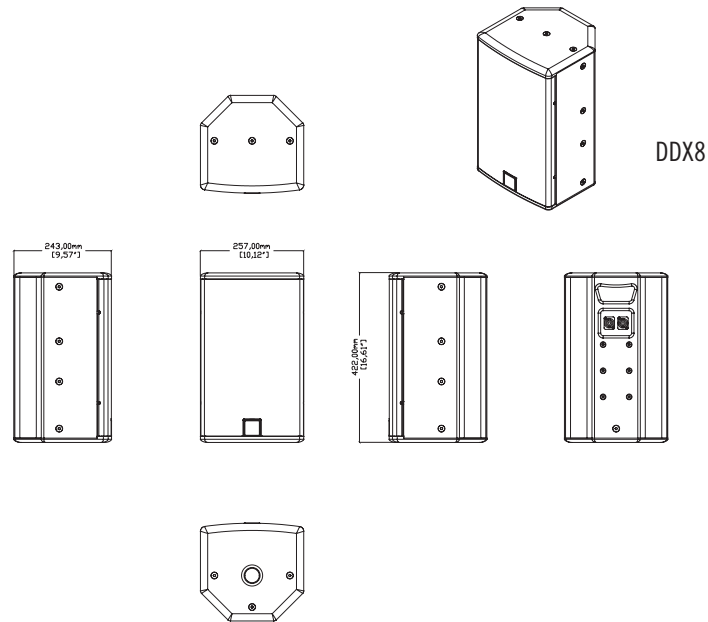


Wall bracket



Pole for mounting

## TECHNICAL SPECIFICATIONS



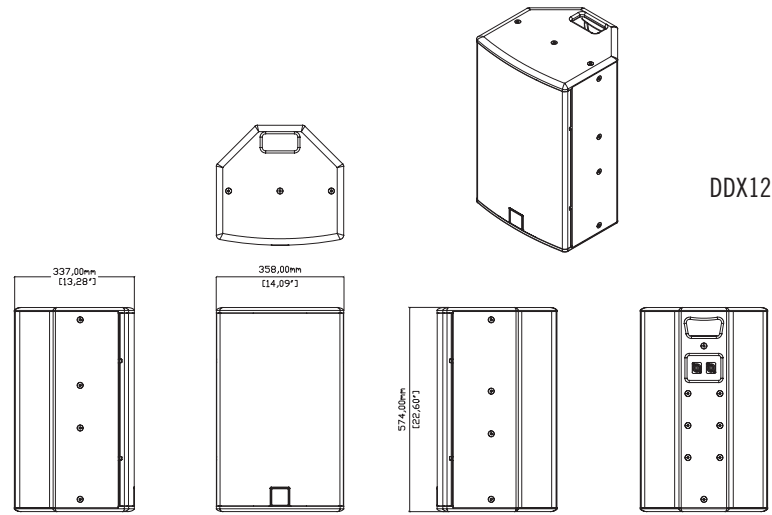
## DDX8

TYPE	Ultra-Compact, coaxial differential dispersion passive two-way system
FREQUENCY RESPONSE (5)	70Hz-20kHz $\pm$ 3dB, -10dB @ 55Hz
DRIVERS	LF: 8" (200mm)/2" (50mm) voice coil, long excursion, shared ferrite motor system with HF HF: 1" (25mm) exit/1.4" (38mm) voice coil, polyimide dome compression driver
RATED POWER (2)	200W AES, 800W peak
RECOMMENDED AMPLIFIER	VIA 2502 or VIA 2004
SENSITIVITY (8)	94dB
MAXIMUM SPL (9)	117dB continuous, 123dB peak
NOMINAL IMPEDANCE	8 $\Omega$
DISPERSION	110°-80° horizontal, 60° vertical (user-rotatable)
CROSSOVER	2.3kHz passive
ENCLOSURE	Multi-angle birch/poplar ply
FINISH	Black textured paint
PROTECTIVE GRILLE	Black perforated steel with scrim cloth backing
CONNECTORS	2 x NL4 type
PIN CONNECTIONS	1+/-
PIN CONNECTIONS	1+/- to 1+/-
FITTINGS	13 x M8, 6 x M6 inserts, pole-mount socket, 1 x pocket handle
DIMENSIONS	(W) 257mm x (H) 422mm x (D) 243mm (W) 10.1ins x (H) 16.6ins x (D) 9.6ins
WEIGHT	10.5kg (23.15lbs)
ACCESSORIES	Wall bracket, eyebolts, pole

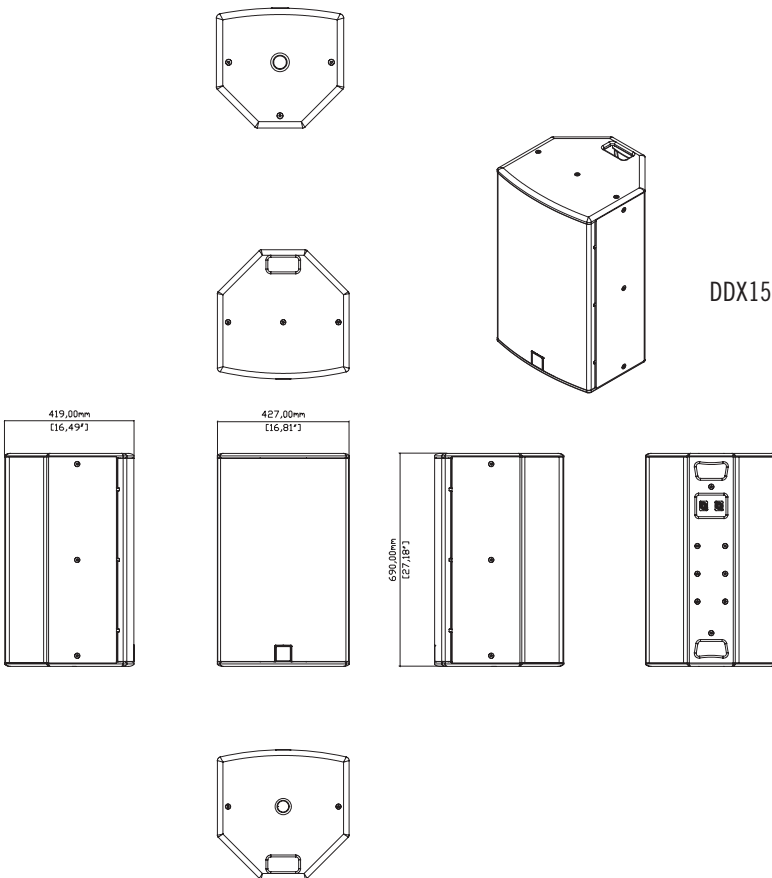
## DDX10

TYPE	Compact, coaxial differential dispersion passive two-way system
FREQUENCY RESPONSE (5)	65Hz-20kHz $\pm$ 3dB, -10dB @ 55Hz
DRIVERS	LF: 10" (250mm)/2.5" (63.5mm) voice coil, long excursion, shared ferrite motor with HF HF: 1" (25mm) exit/1.4" (38mm) voice coil, polyimide dome compression driver
RATED POWER (2)	250W AES, 1000W peak
RECOMMENDED AMPLIFIER	VIA 2502 or VIA 2004
SENSITIVITY (8)	96dB
MAXIMUM SPL (9)	120dB continuous, 126dB peak
NOMINAL IMPEDANCE	8 $\Omega$
DISPERSION	110°-75° horizontal, 60° vertical (user-rotatable)
CROSSOVER	2kHz passive
ENCLOSURE	Multi-angle birch/poplar ply
FINISH	Black textured paint
PROTECTIVE GRILLE	Black perforated steel with scrim cloth backing
CONNECTORS	2 x NL4 type
PIN CONNECTIONS	1+/-
PIN CONNECTIONS	1+/- to 1+/-
FITTINGS	19 x M8 inserts, pole-mount socket, 1 x bar handle
DIMENSIONS	(W) 324mm x (H) 522mm x (D) 289mm (W) 12.8ins x (H) 20.6ins x (D) 11.4ins
WEIGHT	13.7kg (30.20lbs)
ACCESSORIES	Wall bracket, eyebolts, pole





DDX12



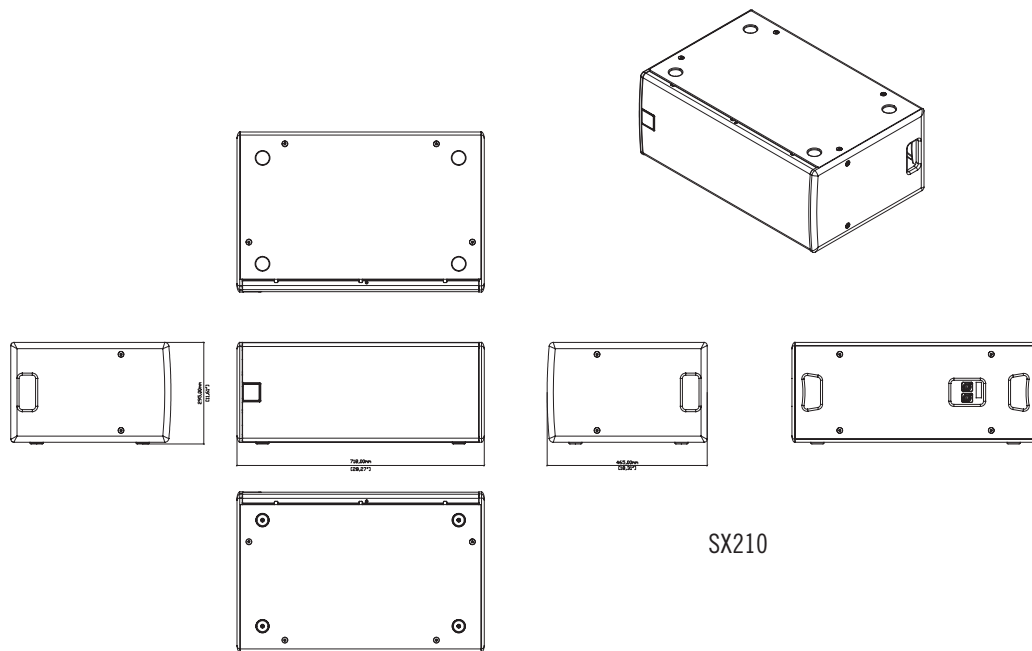
DDX15

## DDX12

TYPE	Compact, high-output, Coaxial Differential Dispersion passive two-way system
FREQUENCY RESPONSE (5)	62Hz-20kHz $\pm$ 3dB, -10dB @ 50Hz
DRIVERS	LF: 12" (300mm)/2.5" (63.5mm) voice coil, long excursion, shared ferrite motor with HF HF: 1" (25mm) exit/1.7" (44mm) voice coil, polyimide dome compression driver
RATED POWER (2)	300W AES, 1200W peak
RECOMMENDED AMPLIFIER	VIA2502 or VIA5002 or VIA5004
SENSITIVITY (8)	97dB
MAXIMUM SPL (9)	122dB continuous, 128dB peak
NOMINAL IMPEDANCE	8 $\Omega$
DISPERSION	110°-60° horizontal, 60° vertical (user-rotatable)
CROSSOVER	1.9kHz passive
ENCLOSURE	Multi-angle birch/poplar ply
FINISH	Black textured paint
PROTECTIVE GRILLE	Black perforated steel with scrim cloth backing
CONNECTORS	2 x NL4 type
PIN CONNECTIONS	1+/-
PIN CONNECTIONS	1+/- to 1+/-
FITTINGS	20 x M8 inserts, pole-mount socket, 1 x bar handle
DIMENSIONS	(W) 358mm x (H) 574mm x (D) 337mm (W) 14.1ins x (H) 22.6ins x (D) 13.7ins
WEIGHT	18kg (39.68lbs)
ACCESSORIES	Wall bracket, eyebolts, pole

## DDX15

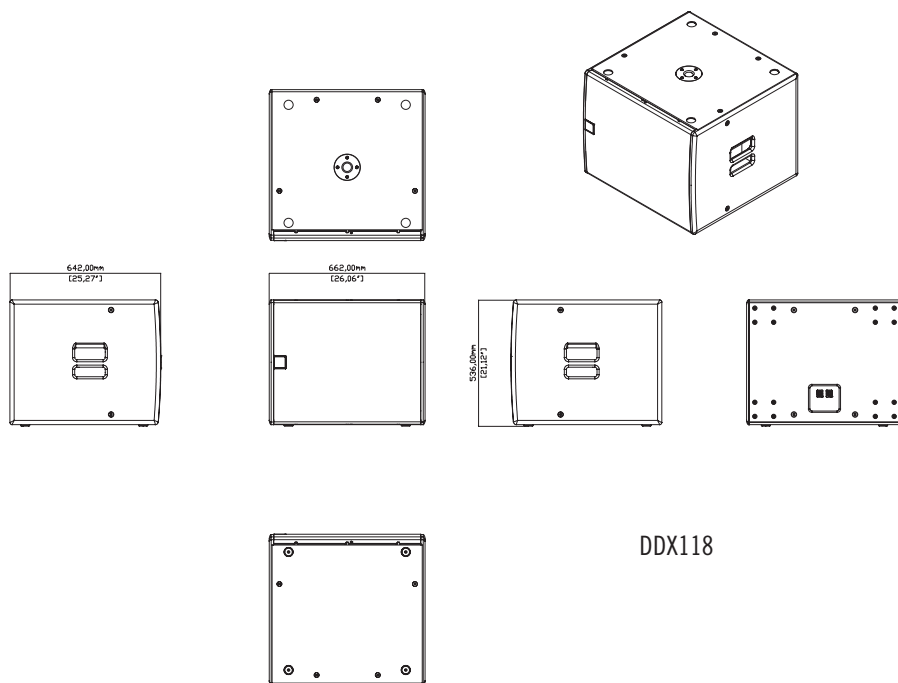
TYPE	High-output, Coaxial Differential Dispersion passive two-way system
FREQUENCY RESPONSE (5)	55Hz-18kHz $\pm$ 3dB, -10dB @ 45Hz
DRIVERS	LF: 15" (380mm)/3" (75mm) voice coil, long excursion, shared ferrite motor system with HF HF: 1.4" (36mm) exit/3" (75mm) voice coil, titanium dome compression driver
RATED POWER (2)	400W AES, 1600W peak
RECOMMENDED AMPLIFIER	VIA5002 or VIA5004
SENSITIVITY (8)	100dB
MAXIMUM SPL (9)	126dB continuous, 132dB peak
NOMINAL IMPEDANCE	8 $\Omega$
DISPERSION	100°-60° horizontal, 60° vertical (user-rotatable)
CROSSOVER	1.6kHz passive
ENCLOSURE	Multi-angle birch/poplar ply
FINISH	Black textured paint
PROTECTIVE GRILLE	Black perforated steel with scrim cloth backing
CONNECTORS	2 x NL4 type
PIN CONNECTIONS	1+/-
PIN CONNECTIONS	1+/- to 1+/-
FITTINGS	19 x M8 inserts, pole-mount socket, 2 x bar handles
DIMENSIONS	(W) 427mm x (H) 690mm x (D) 419mm (W) 16.8ins x (H) 27.2ins x (D) 16.5ins
WEIGHT	26kg (57.32lbs)
ACCESSORIES	Eyebolts, pole



SX210

## SX210

TYPE	Slimline, direct radiating subwoofer
FREQUENCY RESPONSE (1)	50Hz-150Hz ± 3dB -10dB @ 42Hz
DRIVER	2 x 10" (250mm)/2" (50mm) voice coil, long excursion, ferrite magnet
RATED POWER (2)	500W AES, 2000W peak
RECOMMENDED AMPLIFIER	VIA2502/5002/5004
SENSITIVITY (10)	103dB
MAXIMUM SPL (9)	127dB continuous, 133dB peak (half space)
NOMINAL IMPEDANCE	4 ohms
DISPERSION (-6dB)	Omnidirectional
CROSSOVER	80-120Hz active
ENCLOSURE	Birch/poplar ply
FINISH	Black textured paint
PROTECTIVE GRILLE	Black perforated steel
CONNECTORS	2 x NL4 type
PIN CONNECTIONS (INPUT)	1+/-
PIN CONNECTIONS (LINK)	1+/- to 1+/-
FITTINGS	16 x M8 inserts, 2 x bar handles
DIMENSIONS (INCL FEET)	(W) 718mm x (H) 295mm x (D) 465mm (W) 28.3ins x (H) 11.4ins x (D) 18.3ins
WEIGHT	20kg (44.1lbs)



DDX118

## DDX118

TYPE	Compact, direct radiating subwoofer
DRIVER COMPLIMENT	18" (460mm) /4" (100mm) voice coil, long excursion, ferrite magnet
DISPERSION	Omnidirectional
MAX SPL	135dB
CONT SPL	129dB
FREQUENCY RESPONSE (1)	+/- 3dB, 42Hz-200Hz
FREQUENCY (1)	- 10dB, 33Hz
SENSITIVITY (10)	100dB per. 2.83V
CROSSOVER	80 - 120Hz active
RATED POWER (2) AES	800W
RECOMMENDED AMPLIFIER	VIA5002 or VIA5004
POWER HANDLING (2) PEAK	3200W
NOMINAL IMPEDANCE	8Ω
CONNECTORS	2 x NL4 type
PIN CONNECTIONS (INPUT)	1+ / 1- INPUT, 2+ /2- N/C
PIN CONNECTIONS (LINK)	1+ / 1- LINK, 2+ /2- N/C
FITTINGS	16x M10, provision for castors, Pole mount socket
HANDLE TYPE	2 x Bar
DIMENSIONS (H x W x D)	537mm x 662mm x 640mm (incl feet)
WEIGHT (MAX)	40.65kg (89.62lbs)



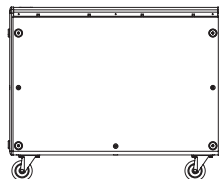
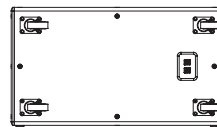
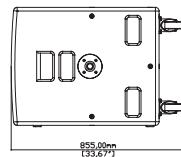
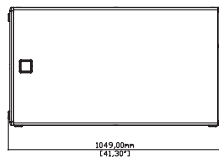
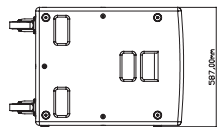
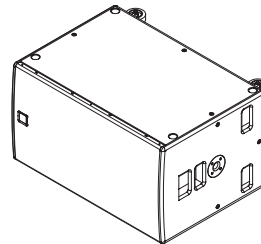
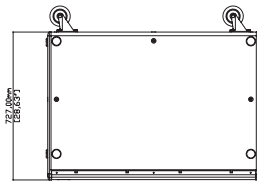
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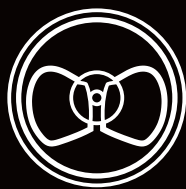
TYPE	Dual-driver, direct radiating subwoofer
FREQUENCY RESPONSE (1)	42Hz-200Hz $\pm$ 3dB -10dB @ 33Hz
DRIVER	18" (460mm)/4" (100mm) voice coil, long excursion, ferrite magnet
RATED POWER (2)	1600W AES, 6400W peak
RECOMMENDED AMPLIFIER	VIA 5002, iK81, iK42
SENSITIVITY (10)	106dB
MAXIMUM SPL (9)	141dB peak (half space)
NOMINAL IMPEDANCE	4 ohms
DISPERSION (-6dB)	Omnidirectional
CROSSOVER	80-120Hz active
ENCLOSURE	Birch/poplar ply
FINISH	Black textured paint
PROTECTIVE GRILLE	Black perforated steel
CONNECTORS	2 x NL4 type
PIN CONNECTIONS (INPUT)	
PIN CONNECTIONS (LINK)	1+ 1- Link Through 2+ 2- 1+ 1- Link Through 2+ 2-
FITTINGS	12 x M10 inserts, pole-mount socket 2 x bar handles, 4 x pocket handles, provision for castors
DIMENSIONS (INCL FEET)	(W) 1049mm x (H) 587mm x (D) 727mm (W) 41.3ins x (H) 23.1ins x (D) 28.6ins
WEIGHT	88kg (194lbs)

## 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.

X218





# DDX



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## Unite Your Audience

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Version 1.1