

# SIGMA-X Series

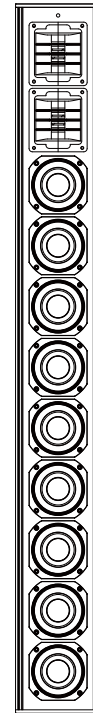
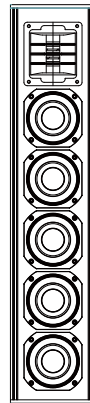
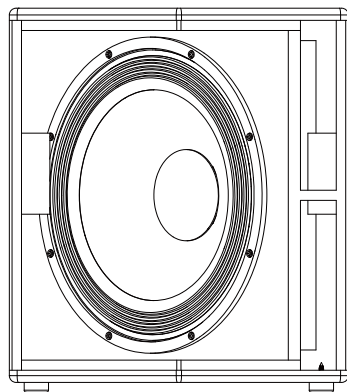
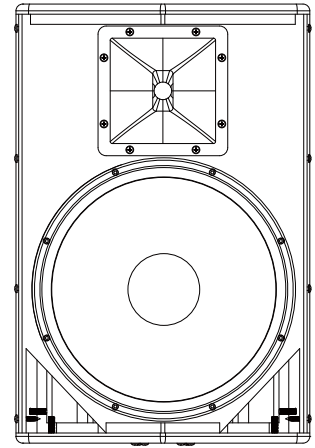
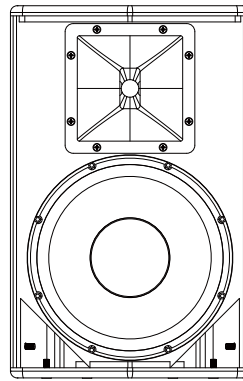
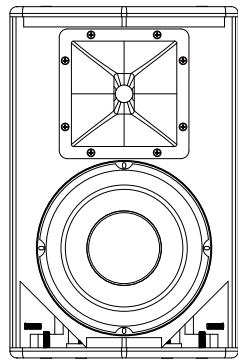
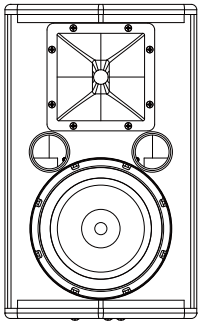
## USER MANUAL

SIGMA-X8  
SIGMA-X18B

SIGMA-X10  
SIGMA-XV5 & XV5T

SIGMA-X12

SIGMA-X15  
SIGMA-XV9 & XV9T



*Wharfedale  
Pro*

[www.wharfedalepro.com](http://www.wharfedalepro.com)

# Important Warnings & Safety Instructions

- Read these instructions
- Follow these instructions
- Keep these instructions for future reference
- Heed all warnings
- Do not use this system near moisture or water
- Clean only with a dry cloth
- Install in accordance with these Wharfedale Pro operating instructions
- Follow the manufacturer's operating instructions for all peripheral devices such as amplifiers and processors
- Do not install near heat sources such as radiators, heat registers, stoves or any other apparatus that produces heat (for example lighting systems and amplifiers)
- Use only accessories specified or supplied by Wharfedale Pro
- Do not use shielded microphone/instrument cables to connect amplifiers and speakers, use only approved speaker cables with proper connectors
- Use caution with placement and operation of this speaker system, permanent hearing damage can be caused by prolonged exposure to excessive sound pressure levels
- Refer all servicing to qualified professionals. Servicing is required when the loudspeaker has been damaged in any way, such as impact damage, liquid ingress or foreign object damage. In addition the loudspeaker should be referred to qualified service personnel if there is any kind of malfunction.



- Rigging, suspending and mounting should only be attempted by experience qualified professionals. Incorrect usage can result in damage to equipment and property, injury and even death. Under no circumstances should you attempt to rig, suspend or mount these speakers unless you are fully qualified and certified to do so by relevant local, state and national authorities. If you are not properly qualified or do not know of pertinent regulations consult qualified personnel for advice. Consult a structural engineer before suspending a speaker system and ensure that the total weight of your system can be held by the truss or mounting surface.



- Inspect all mounting hardware before rigging, suspending or mounting. If there is any damage or distortion to any mounting hardware do not proceed until any damaged hardware is repaired or replaced.

## **UNPACKING**

- All Wharfedale Pro products are fully checked before leaving our factory. After unpacking please inspect the cabinets for any physical damage Please retain the shipping carton if possible and internal packing material incase the unit ever needs to be returned. Please check as soon as possible that the unit is functioning. In the event of any damage please contact your dealer immediately so that a written claim for damage can be made.

# About the SIGMA-X Series

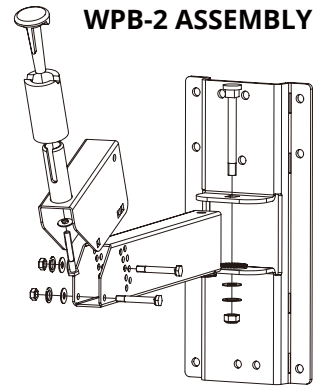
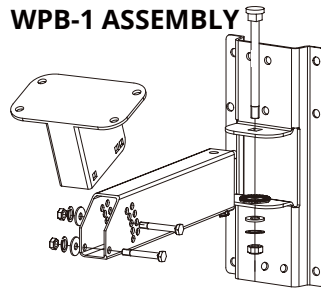
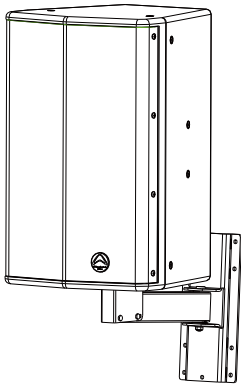
Building on the reliable performance of the established SIGMA series, the new SIGMA-X features newly designed front grilles and support materials to make the installation simply look and sound great. Improved mounting and rigging options make SIGMA-X simple to install into almost any location. The improved audio definition is also welcomed as SIGMA-X has been completely re-evaluated by the Wharfedale Pro International R&D team.

New column models (Sigma-XV5 and XV9) also now feature HF compression drivers coupled to the innovative mini EVO-Fold waveguide developed for the flagship WLA-1 Hybrid Curvature Array system.

## Features

- Newly designed cosmetics
- Rotatable HF waveguides
- Re-evaluated performance
- Updated column models with HF drivers
- Column models with mini EVO-Fold waveguides
- EASE gll files available for download
- Supported with system diagrams
- Supported with downloadable FIR presets
- Easy fixings and brackets

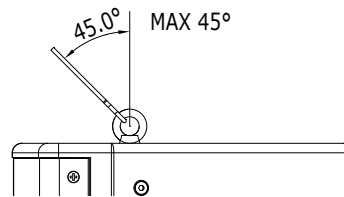
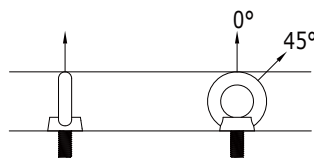
# SIGMA-X Series Optional Mounting Hardware



**SIGMA-X8, X10, X12 and X15 can use the optional WPB-1 or WPB-2 wall bracket**

## SIGMA-X Series Rigging

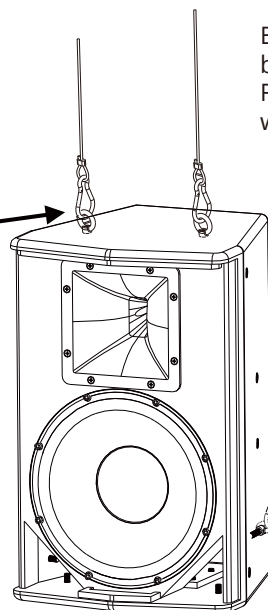
- Any installation should be inspected at regularly. Wear and corrosion may lead to deterioration.
- Always ensure that the suspension wires and mounting hardware are strong enough to support the weight of the speaker / s.
- Always ensure rigging hardware (eye bolts / suspension wires) conform to the safety standards and regulations in your area.
- For long term installation use a thread-locking compound.
- Do not attempt to bend or otherwise deform any rigging hardware.
- Never exceed 45 degrees from a right angle with suspension wires
- Wharfedale Pro cannot be held responsible for injury or damage caused by improper installation.



SIGMA-X series can use M8 forged shoulder eye bolt ONLY. Be aware that lifting eye bolts at an angle reduces the safe load. Always ensure the rigging hardware conforms to the safety standards and regulations in your area.

M8 forged shoulder eye bolt  
(User supplied, overhead suspension rated and certified)

Each primary load bearing suspension point shall be rated for the total load. (A minimum 5:1 Design Factor or Local Standard should be observed - whichever is greater)



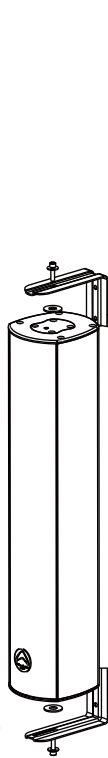
Secondary suspension point

M8 forged shoulder eye bolt

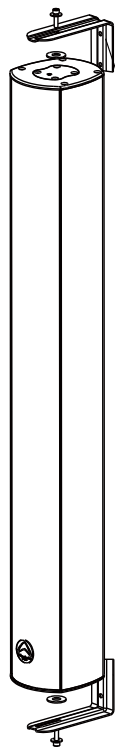
Working load limits:  
No more than four (4) high (vertical)

The four (4) high vertical specification represents a static ratio of 7:1

# SIGMA-X Series Installation Hardware



SIGMA-XV5 / XV5T

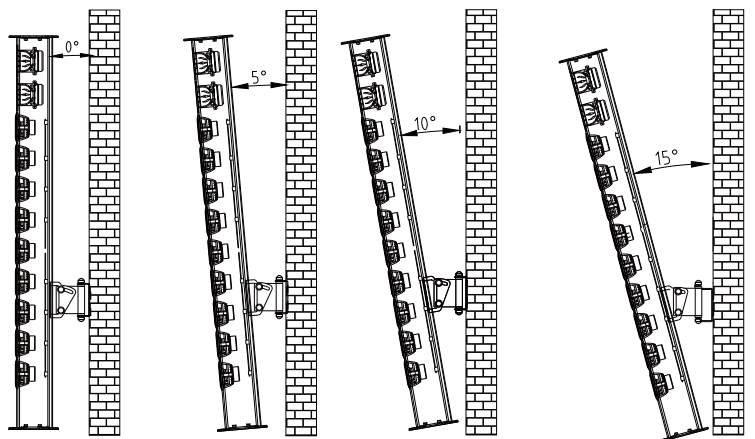
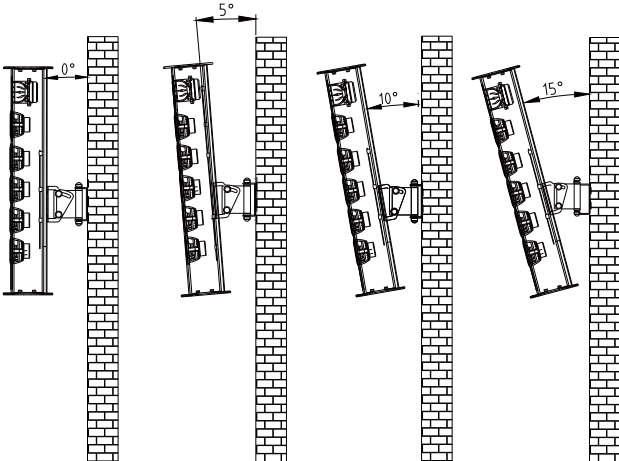


SIGMA-XV9 / XV9T

Both models are supplied with U-bracket hardware

SIGMA-XV5 / XV5T

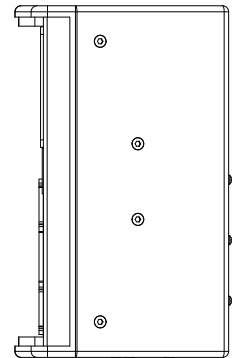
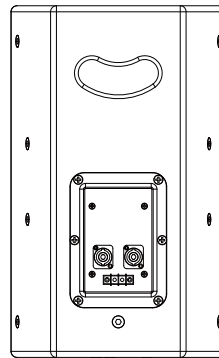
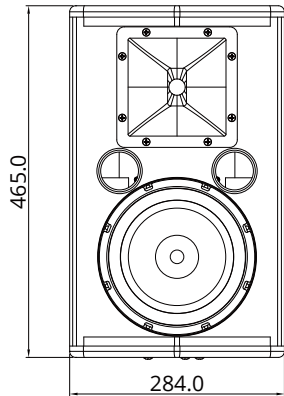
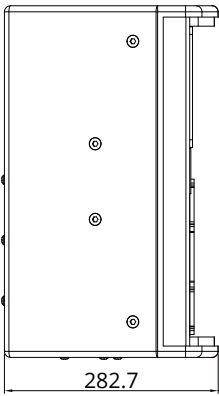
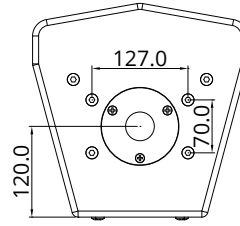
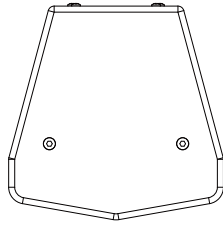
SIGMA-XV9 / XV9T



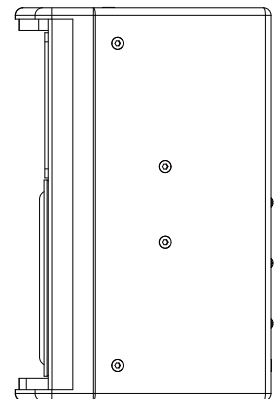
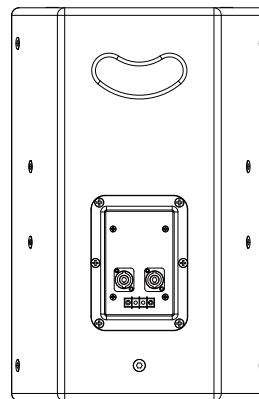
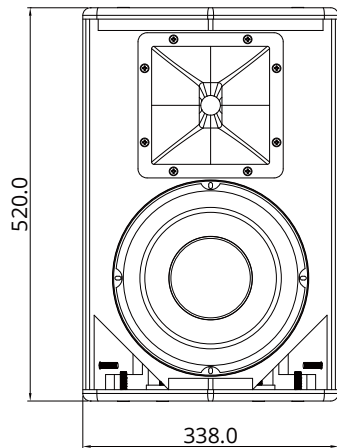
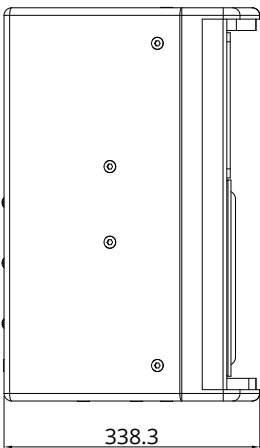
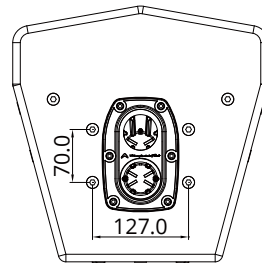
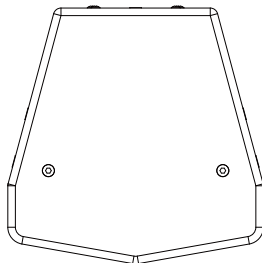
The optional WPB-SV bracket allows for angles of up to 15° to be created

# Dimensional Drawings

## SIGMA-X8

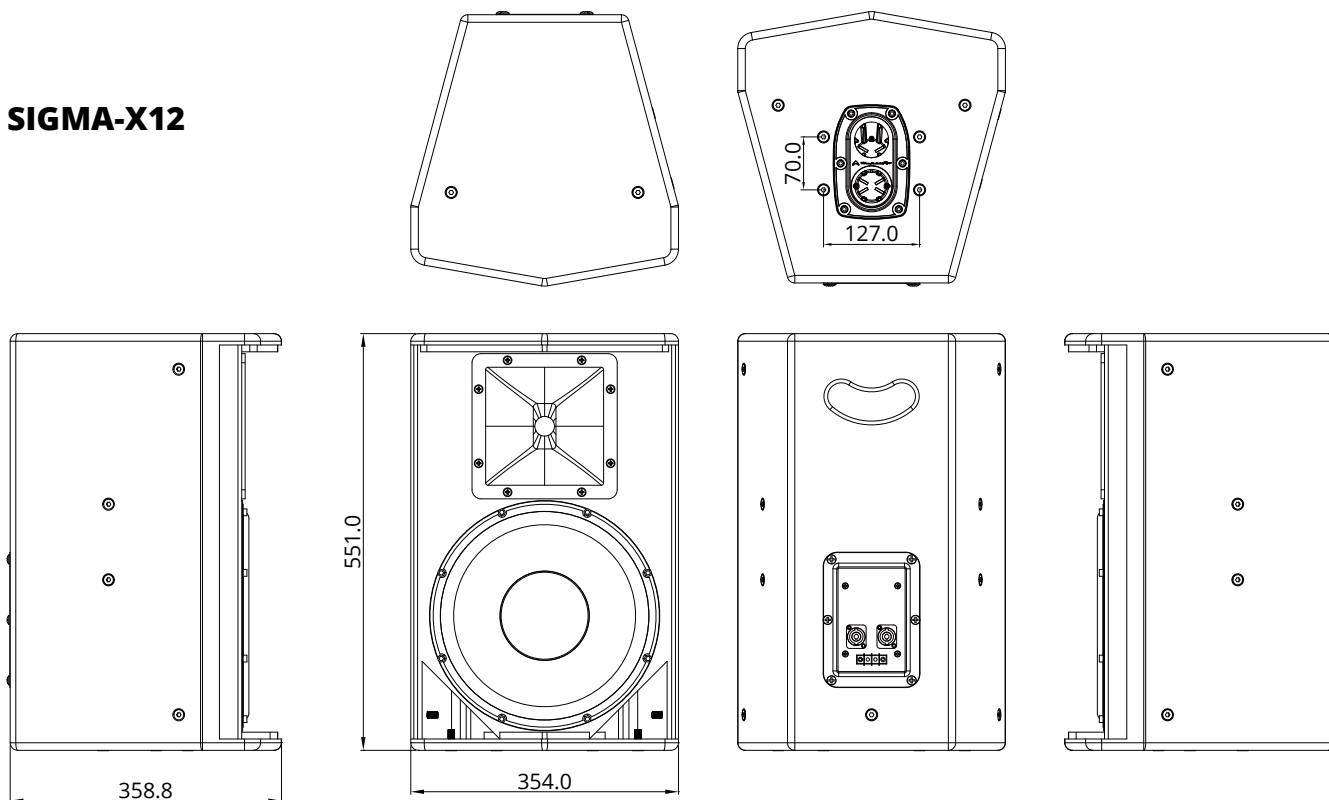


## SIGMA-X10

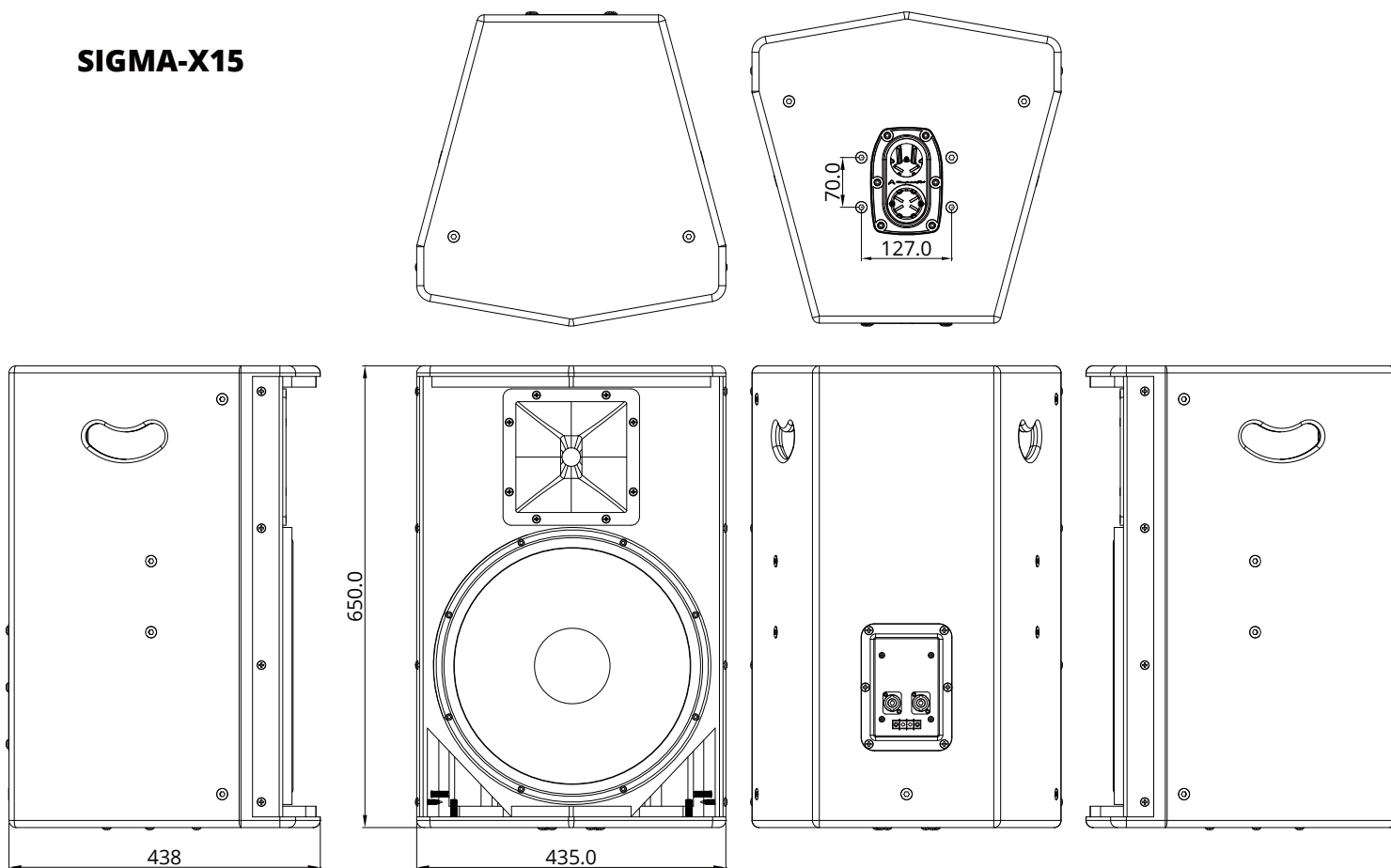


# Dimensional Drawings

## SIGMA-X12

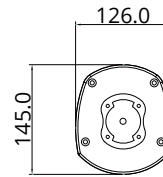
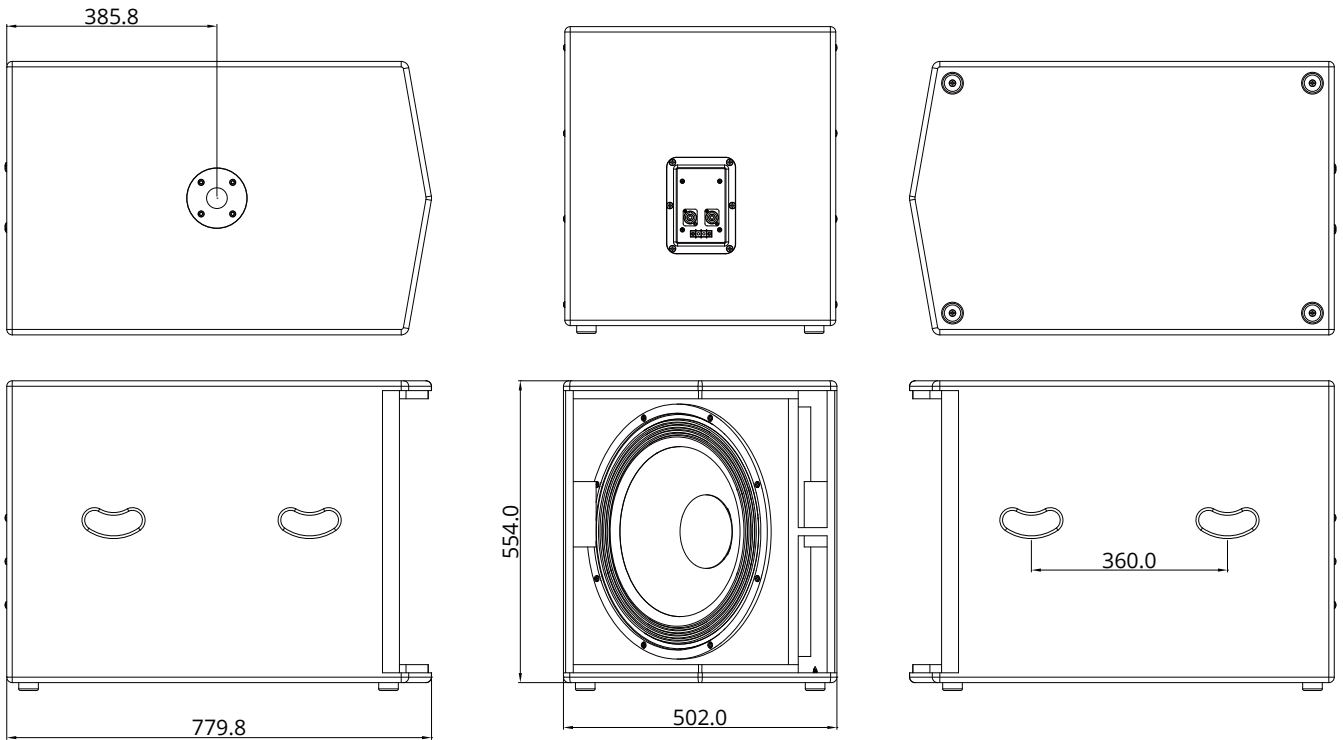


## SIGMA-X15



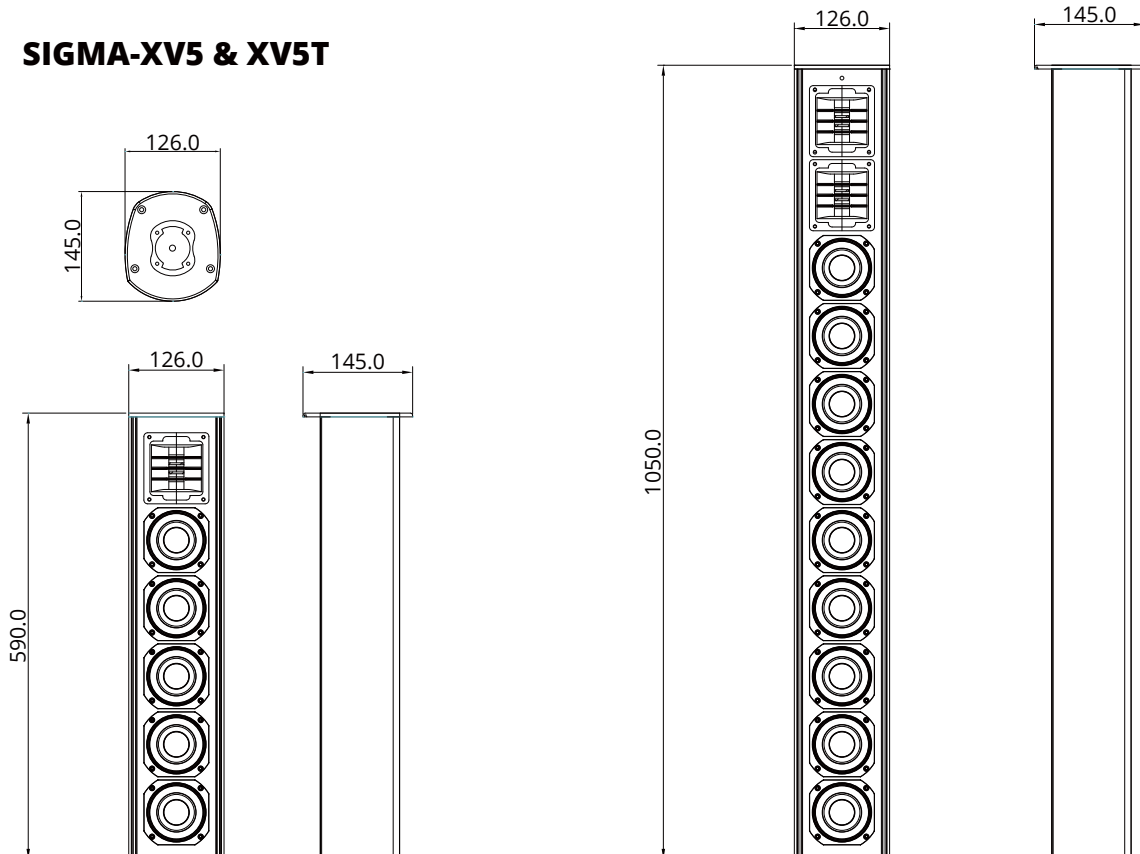
# Dimensional Drawings

## SIGMA-X18B



## SIGMA-XV9 & XV9T

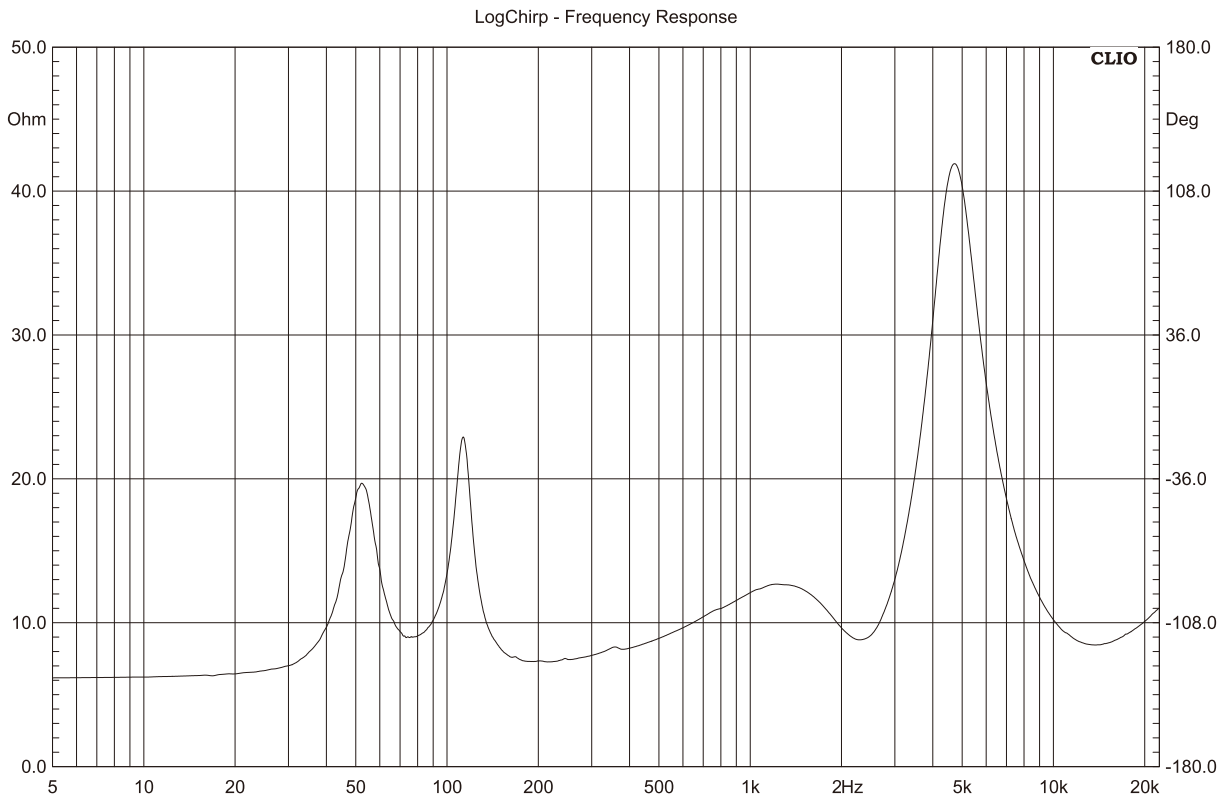
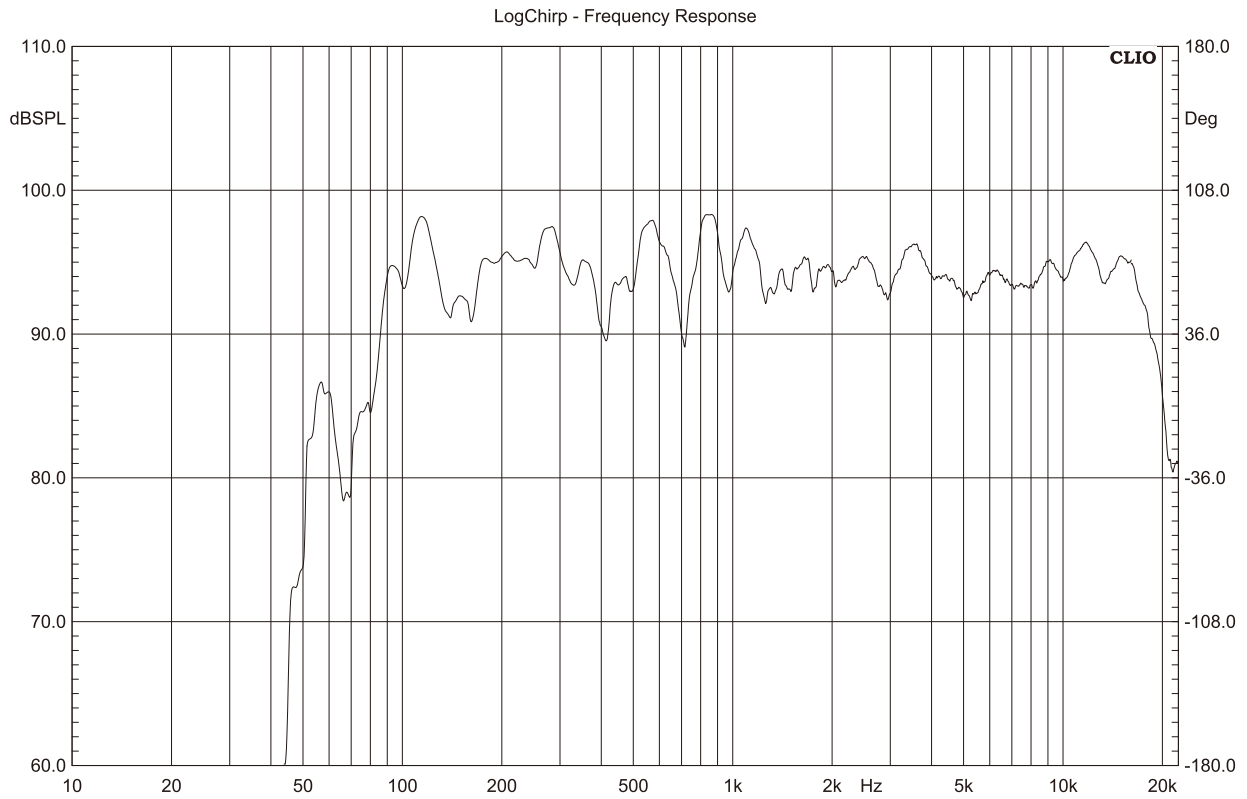
## SIGMA-XV5 & XV5T





# Response Graphs

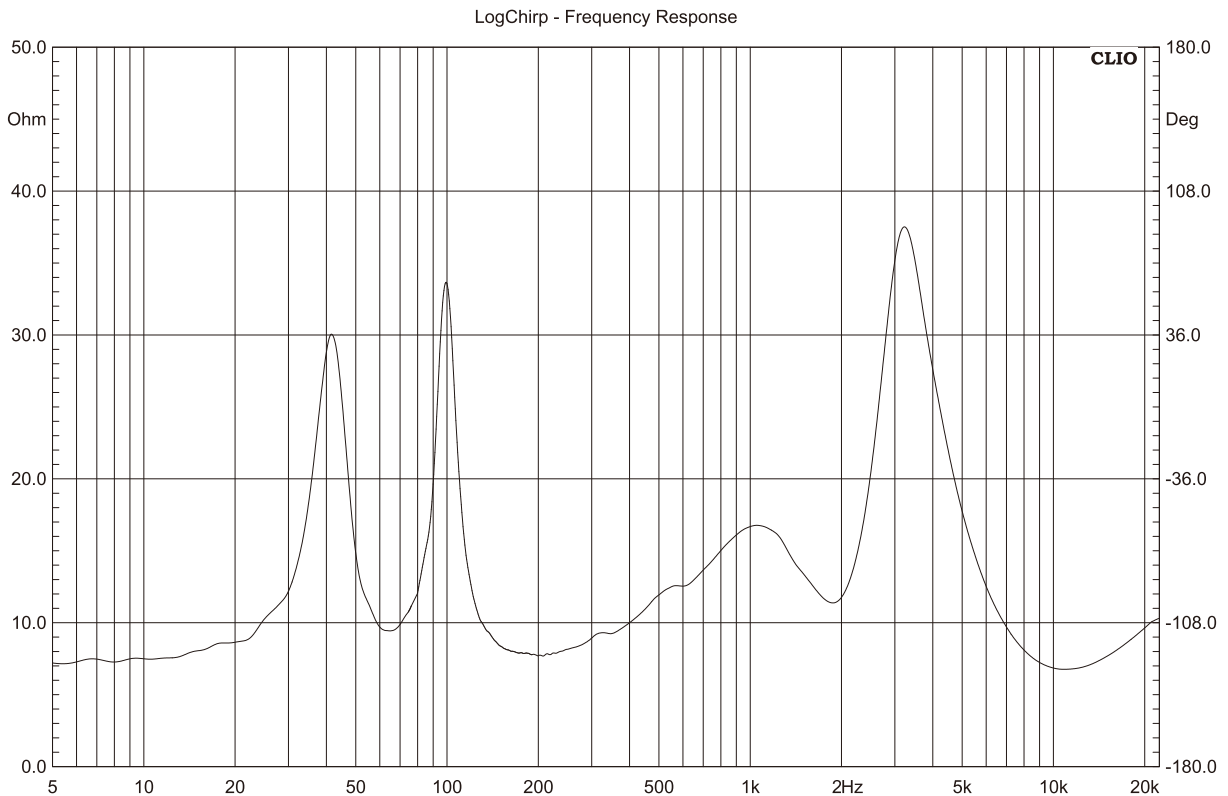
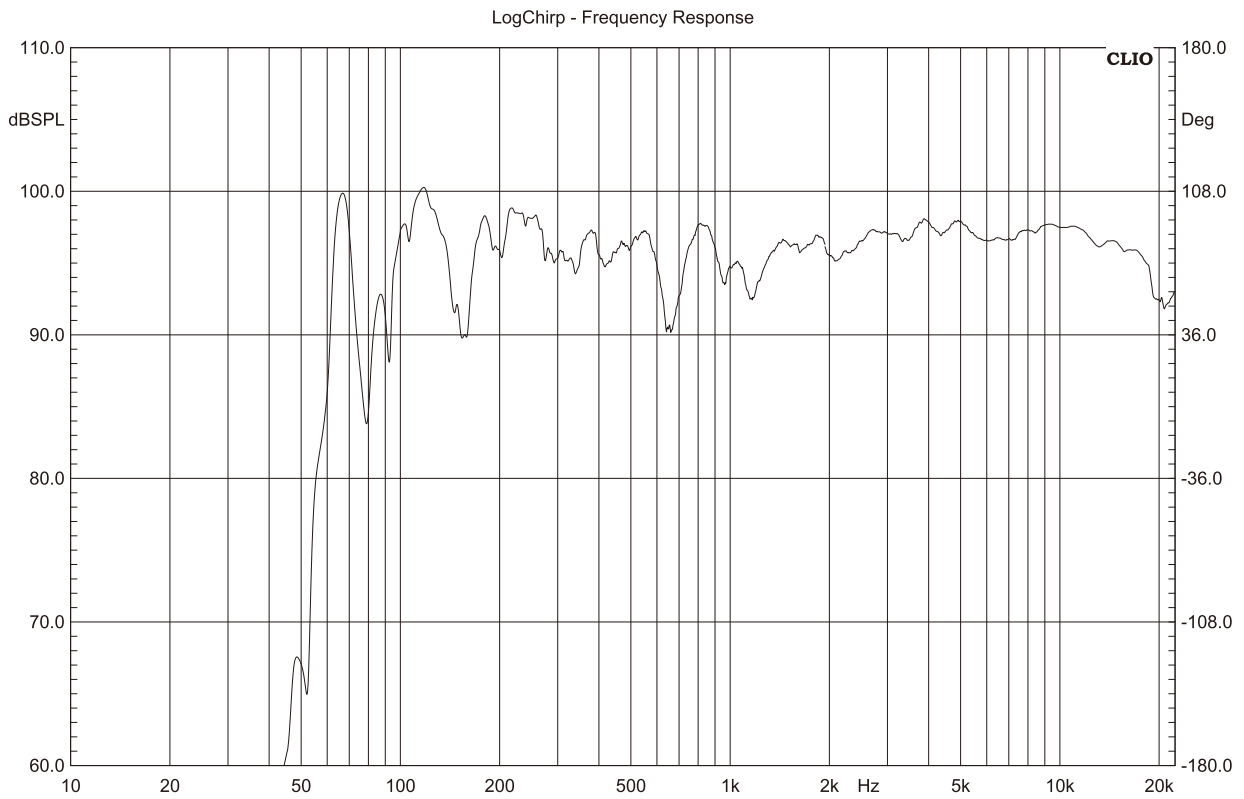
## SIGMA-X8



Note : Specification and graphs are created with the dedicated DSP presets.

# Response Graphs

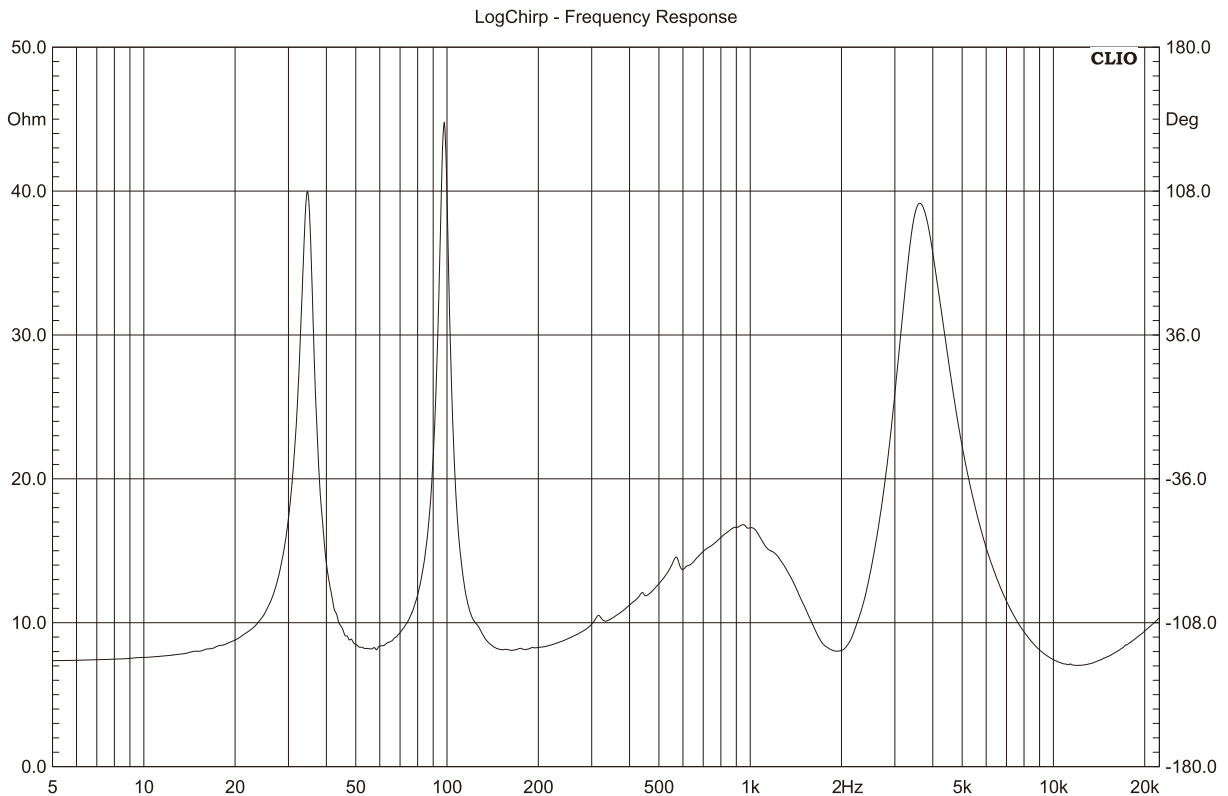
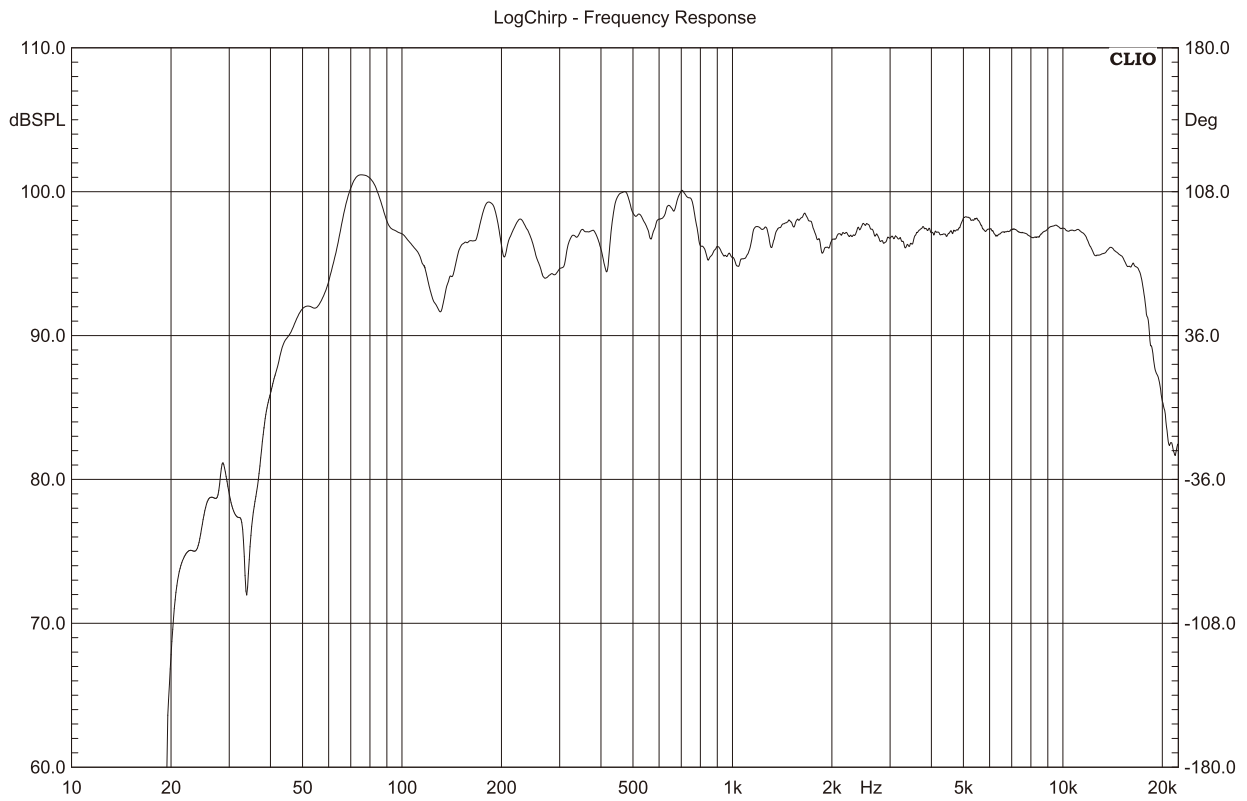
## SIGMA-X10



Note : Specification and graphs are created with the dedicated DSP presets.

# Response Graphs

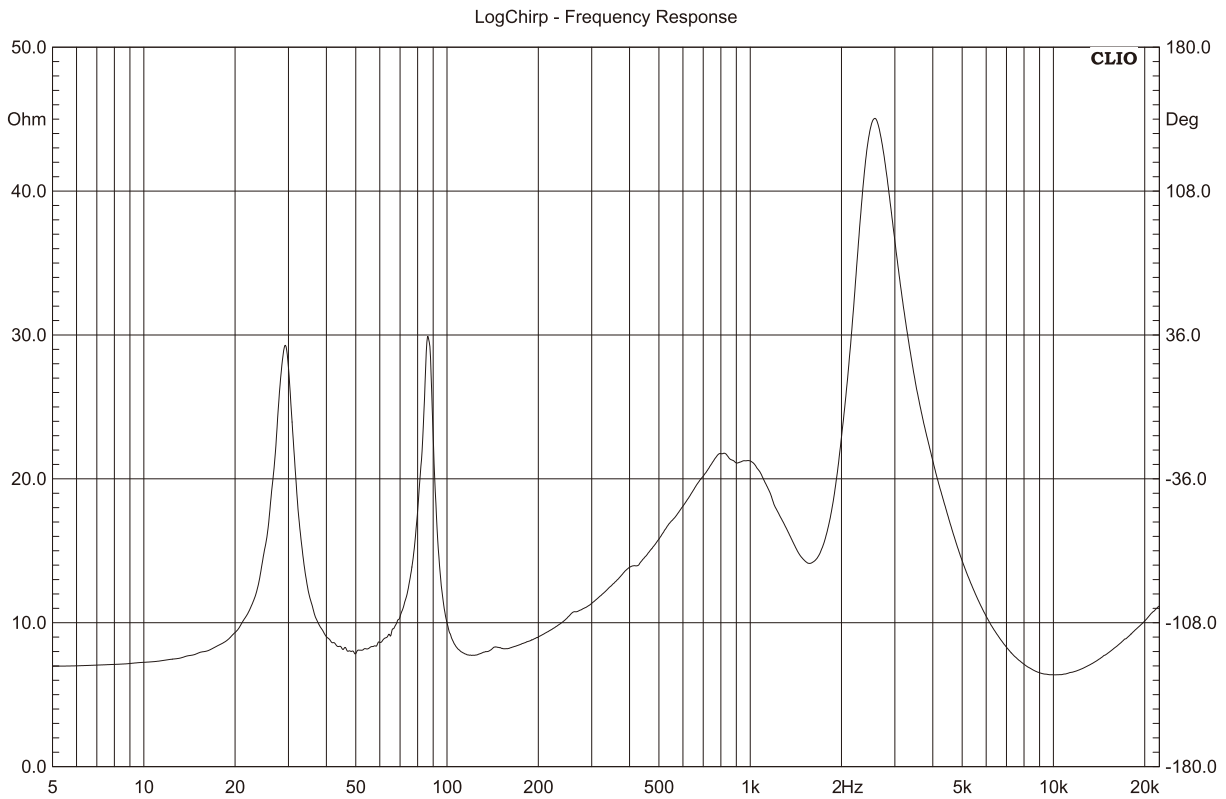
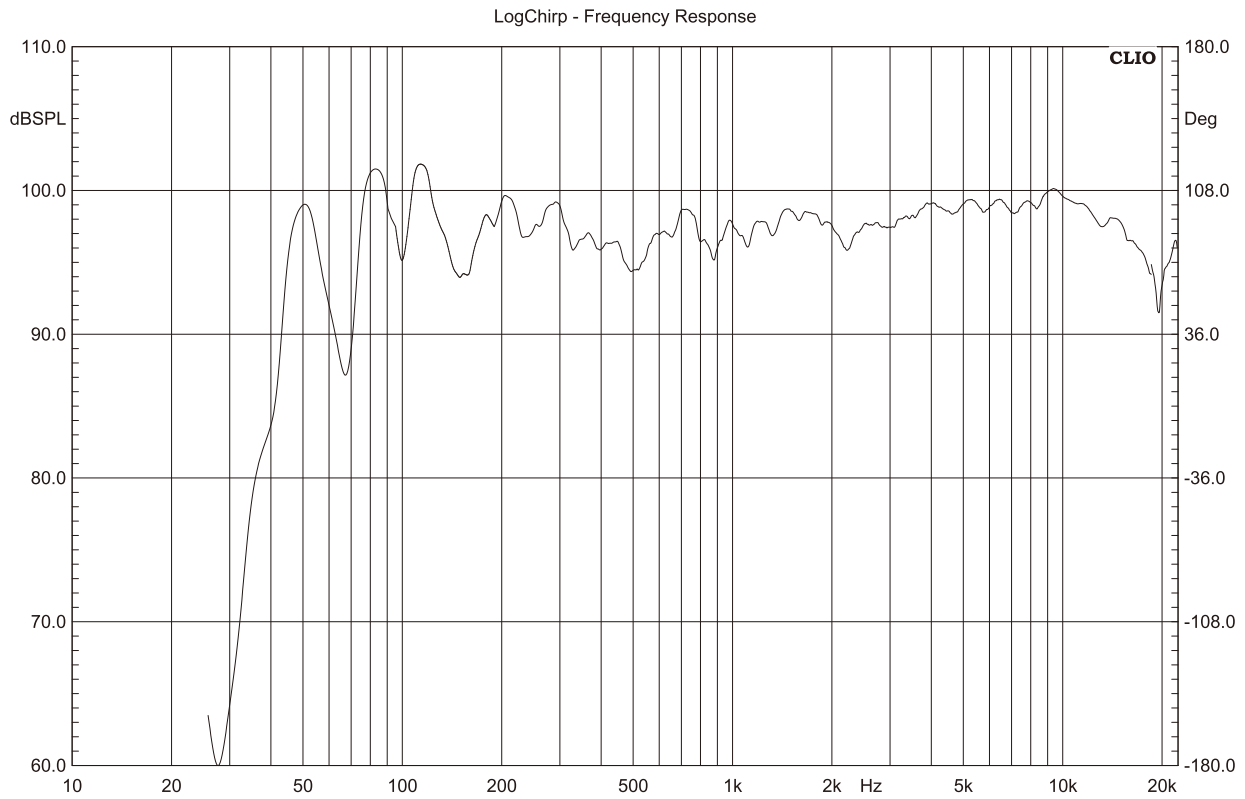
## SIGMA-X12



Note : Specification and graphs are created with the dedicated DSP presets.

# Response Graphs

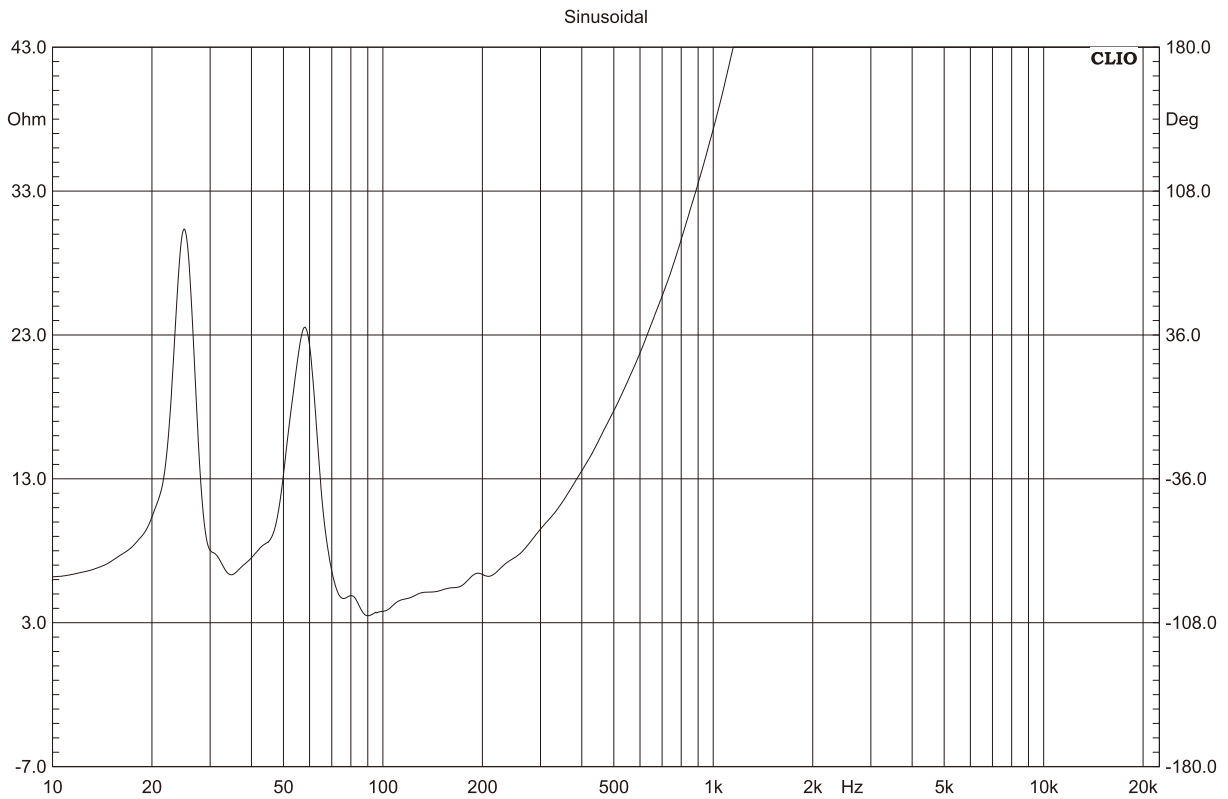
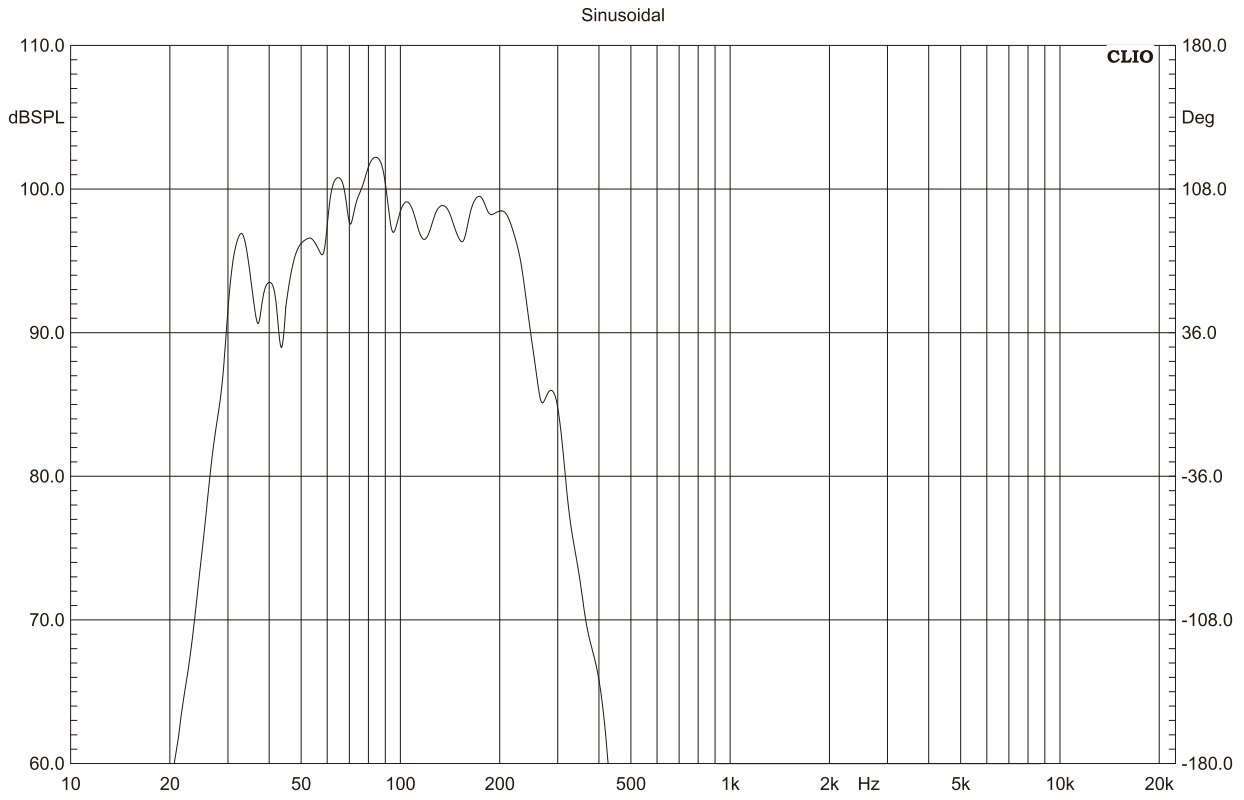
## SIGMA-X15



Note : Specification and graphs are created with the dedicated DSP presets.

# Response Graphs

## SIGMA-X18B



Note : Specification and graphs are created with the dedicated DSP presets.

# Specifications

Model Name	SIGMA-X8	SIGMA-X10	SIGMA-X12
System Type	Passive	Passive	Passive
Configuration	Two-Way	Two-Way	Two-Way
Frequency Response (+/-3 dB)	70 Hz - 18 KHz	65 Hz - 18 KHz	60 Hz - 18 KHz
Frequency Range (-10 dB)	65 Hz - 20 KHz	60 Hz - 20 KHz	55 Hz - 20 KHz
Sensitivity 2.83 V / 1 m	96 dB	97 dB	98 dB
Calculated Maximum SPL @1 m	124 dB	126 dB	129 dB
System Rated Impedance	8 Ω	8 Ω	8 Ω
<b>Low Frequency Transducer</b>			
Size (mm / inches)	203 mm / 8"	254 mm / 10"	305 mm / 12"
Voice Coil Size (mm / inches)	38 mm / 1.5"	38 mm / 1.5"	64 mm / 2.5"
Rated Impedance	8 Ω	8 Ω	8 Ω
LF Power re:AES2-2012	150 W	200 W	300 W
<b>High Frequency Transducer</b>			
HF Driver Type	Compression Driver	Compression Driver	Compression Driver
Coil Size (mm / inches)	44 mm / 1.75"	44 mm / 1.75"	44 mm / 1.75"
Exit Size (mm / inches)	1"	1"	1"
Diaphragm Material	Titanium	Titanium	Titanium
Rated Impedance	8 Ω	8 Ω	8 Ω
HF Power re:AES2-2012	40 W	40 W	40 W
<b>Waveguide Type</b>	Constant Directivity / Rotatable	Constant Directivity / Rotatable	Constant Directivity / Rotatable
Nominal Coverage (H x V)	90° x 60°	90° x 60°	90° x 60°
LF Driver	1 x 8"	1 x 10"	1 x 12"
HF Driver	1 x 1.75" Titanium Compression Driver	1 x 1.75" Titanium Compression Driver	1 x 1.75" Titanium Compression Driver
<b>Power</b>			
System Continuous Power	150 W	200 W	300 W
System Programme Power	300 W	400 W	600 W
System Peak Power	600 W	800 W	1200 W
Transformer (T)			
Transformer Taps (70 V)			
Transformer Taps (100 V)			
Crossover frequency	2.8 KHz	2.4 KHz	2.2 KHz
Recommended HPF = BW 18 dB/oct.	55 Hz	45 Hz	38 Hz
Input Connector	2 x speakON / 1x Barrier Strip	2 x speakON / 1x Barrier Strip	2 x speakON / 1x Barrier Strip
Hardware	35 mm pole socket	Dual-angle (0° /10°) 35 mm socket	Dual-angle (0° / 10°) 35 mm socket
	M8 x 17	M8 x 17	M8 x 17
	1 handle on back	1 handle on back	1 handle on back
<b>Enclosure</b>			
Enclosure Material	15 mm MDF	15 mm MDF	15 mm MDF
Finish	Black Paint / White Paint	Black Paint / White Paint	Black Paint / White Paint
Grille Material & Finish	1.2 mm steel, painted	1.2 mm steel, painted	1.2 mm steel, painted
<b>Dimensions - Unpacked</b>			
Height	465 mm / 18.3"	520 mm / 20.5"	551 mm / 21.7"
Width Front	284 mm / 11.2"	338 mm / 13.3"	354 mm / 14"
Width Rear	176 mm / 6.9"	213 mm / 8.4"	218 mm / 8"
Depth	282.7 mm / 11.1"	338.3 mm / 13.3"	359 mm / 14"
<b>Dimensions - Packed</b>			
Height	505 mm / 19.9"	585 mm / 23"	616 mm / 24.3"
Width Front	364 mm / 14.3"	441 mm / 17.3"	468 mm / 18.4"
Width Rear	214.4 mm / 8.43"	251 mm / 9.9"	260 mm / 10.2"
Depth	333 mm / 13.1"	389 mm / 15.3"	404 mm / 15.9"
<b>Weight</b>			
Net Weight	12.2 kg / 26.8 lbs	17.1 kg / 37.62 lbs	19.1 kg / 42.02 lbs
Gross Weight	13.5 kg / 29.7 lbs	18.8 kg / 41.4 lbs	20.74 kg / 48.2 lbs
Optional Wall-mount bracket	WPB-1 / WPB-2	WPB-1 / WPB-2	WPB-1 / WPB-2

Note : Specification and graphs are created with the dedicated DSP presets.  
Specifications may be subject to change without notice.

# Specifications

Model Name	SIGMA-X15	SIGMA-X18B
System Type	Passive	Passive
Configuration	Two-Way	Subwoofer
Frequency Response (+/-3 dB)	50 Hz - 18 KHz	35 Hz - 250 Hz
Frequency Range (-10 dB)	45 Hz - 20 KHz	30 Hz - 250 Hz
Sensitivity 2.83 V / 1 m	98 dB	100 dB
Calculated Maximum SPL @1 m	129 dB	133 dB
System Rated Impedance	8 Ω	4 Ω
<b>Low Frequency Transducer</b>		
Size (mm / inches)	381 mm / 15"	457 mm / 18"
Voice Coil Size (mm / inches)	64 mm / 2.5"	64 mm / 2.5"
Rated Impedance	8 Ω	4 Ω
LF Power re:AES2-2012	350 W	500 W
<b>High Frequency Transducer</b>		
HF Driver Type	Compression Driver	n/a
Coil Size (mm / inches)	44 mm / 1.75"	n/a
Exit Size (mm / inches)	1"	n/a
Diaphragm Material	Titanium	n/a
Rated Impedance	8 Ω	n/a
HF Power re:AES2-2012	40 W	n/a
<b>Waveguide Type</b>	Constant Directivity / Rotatable	
Nominal Coverage (H x V)	90° x 60°	na
LF Driver	1 x 15"	1 x 18"
HF Driver	1 x 1.75" Titanium Compression Driver	n/a
<b>Power</b>		
System Continuous Power	350 W	500 W
System Programme Power	700 W	1000 W
System Peak Power	1400 W	2000 W
Transformer (T)		
Transformer Taps (70 V)		
Transformer Taps (100 V)		
Crossover frequency	2.2 KHz	150 Hz
Recommended HPF = BW 18 dB/oct.	33 Hz	28 Hz
Input Connector	2 x speakON / 1x Barrier Strip	2 x speakON / 1x Barrier Strip
Hardware	Dual-angle (0° / 10°) 35 mm socket	35 mm pole socket
	M8 x 17	
	2 handles on sides	4 handles on sides
<b>Enclosure</b>		
Enclosure Material	15 mm MDF	18 mm MDF
Finish	Black Paint / White Paint	Black Paint / White Paint
Grille Material & Finish	1.2 mm steel, painted	1.2 mm steel, painted
<b>Dimensions - Unpacked</b>		
Height	650 mm / 25.6"	554 mm / 21.25"
Width Front	435 mm / 17"	502 mm / 20"
Width Rear	261 mm / 11.7"	502 mm / 20"
Depth	439 mm / 17.25"	780 mm / 30.8"
<b>Dimensions - Packed</b>		
Height	715 mm / 28.1"	649 mm / 25.5"
Width Front	553 mm / 21.75"	588 mm / 22.75"
Width Rear	304 mm / 12"	588 mm / 22.75"
Depth	488 mm / 19.2"	865 mm / 34"
<b>Weight</b>		
Net Weight	24.4 kg / 53.7 lbs	39.1 kg / 86 lbs
Gross Weight	27.7 kg / 60.9 lbs	46.4 kg / 102 lbs
Optional Wall-mount bracket	WPB-1 / WPB-2	n/a

Note : Specification and graphs are created with the dedicated DSP presets.  
Specifications may be subject to change without notice.

# Specifications

Model Name	SIGMA-XV5	SIGMA-XV9	SIGMA-XV5T	SIGMA-XV9T
System Type	Passive	Passive	Passive	Passive
Configuration	Two-Way	Two-Way	Two-Way	Two-Way
Frequency Response (+/-3 dB)	160 Hz - 18 KHz	130 Hz - 18 KHz	160 Hz - 18 KHz	130 Hz - 18 KHz
Frequency Range (-10 dB)	150 Hz - 20 KHz	120 Hz - 20 KHz	150 Hz - 20 KHz	120 Hz - 20 KHz
Sensitivity 2.83 V / 1 m	95 dB	97 dB	95 dB	97 dB
Calculated Maximum SPL @1 m	123 dB	128 dB	123 dB	128 dB
System Rated Impedance	8 Ω	4 Ω	8 Ω	4 Ω
<b>Low Frequency Transducer</b>				
Size (mm / inches)	5 x 75 mm / 3"	9 x 75 mm / 3"	5 x 75 mm / 3"	9 x 75 mm / 3"
Voice Coil Size (mm / inches)	33 mm / 1.3"	33 mm / 1.3"	33 mm / 1.3"	33 mm / 1.3"
Rated Impedance	4 Ω	4 Ω	4 Ω	4 Ω
LF Power re:AES2-2012	40 W	40 W	40 W	40 W
<b>High Frequency Transducer</b>				
HF Driver Type	1 x 1" High Frequency drivers	2 x 1" High Frequency drivers	1 x 1" High Frequency drivers	2 x 1" High Frequency drivers
Coil Size (mm / inches)	25.4 mm / 1"	25.4 mm / 1"	25.4 mm / 1"	25.4 mm / 1"
Exit Size (mm / inches)	25.4 mm / 1"	25.4 mm / 1"	25.4 mm / 1"	25.4 mm / 1"
Diaphragm Material	PEI	PEI	PEI	PEI
Rated Impedance	n/a	n/a	n/a	n/a
HF Power re:AES2-2012	n/a	n/a	n/a	n/a
<b>Waveguide Type</b>				
Nominal Coverage (H x V)	Mini EVO-Fold 120° x 30°	Mini EVO-Fold 120° x 20°	Mini EVO-Fold 120° x 30°	Mini EVO-Fold 120° x 20°
LF Driver	5 x 3"	9 x 3"	5 x 3"	9 x 3"
HF Driver	1 x 1" PEI EVO-Fold Driver	2 x 1" PEI EVO-Fold Driver	1 x 1" PEI EVO-Fold Driver	2 x 1" PEI EVO-Fold Driver
<b>Power</b>				
System Continuous Power	180 W	360 W	180 W	360 W
System Programme Power	360 W	720 W	360 W	720 W
System Peak Power	720 W	1440 W	720 W	1440 W
Transformer (T)			100 V / 70 V	100 V / 70 V
Transformer Taps (70 V)			7.5,15,30,60 W	15,30,60,120 W
Transformer Taps (100 V)			15,30,60 W	30,60,120 W
Crossover frequency	2.5 KHz	2.5 KHz	2.5 KHz	2.5 KHz
Recommended HPF = BW 18 dB/oct.	160 Hz	160 Hz	160 Hz	160 Hz
Input Connector	1 x speakON / 1x Barrier Strip	1 x speakON / 1x Barrier Strip	Barrier Strip	Barrier Strip
Hardware	U Bracket included	U Bracket included	U Bracket included	U Bracket included
<b>Enclosure</b>				
Enclosure Material	Aluminum	Aluminum	Aluminum	Aluminum
Finish	Black Paint / White Paint	Black Paint / White Paint	Black Paint / White Paint	Black Paint / White Paint
Grille Material & Finish	1.2 mm steel, painted	1.2 mm steel, painted	1.2 mm steel, painted	1.2 mm steel, painted
<b>Dimensions - Unpacked</b>				
Height	720 mm / 28.3"	1210 mm / 47.6"	720 mm / 28.3"	1210 mm / 47.6"
Width Front	126 mm / 4.96"	126 mm / 4.96"	126 mm / 4.96"	126 mm / 4.96"
Width Rear	92 mm / 3.62"	92 mm / 3.62"	92 mm / 3.62"	92 mm / 3.62"
Depth	145 mm / 5.71"	145 mm / 5.71"	145 mm / 5.71"	145 mm / 5.71"
<b>Dimensions - Packed</b>				
Height	865 mm / 30.1"	1285 mm / 50.6"	865 mm / 30.1"	1285 mm / 50.6"
Width Front	210 mm / 8.27"	210 mm / 8.27"	210 mm / 8.27"	210 mm / 8.27"
Width Rear	210 mm / 8.27"	210 mm / 8.27"	210 mm / 8.27"	210 mm / 8.27"
Depth	210 mm / 8.27"	210 mm / 8.27"	210 mm / 8.27"	210 mm / 8.27"
<b>Weight</b>				
Net Weight	6.8 kg / 14.96 lbs	10.1 kg / 22.2 lbs	8.4 kg / 18.4 lbs	13.9 kg / 30.58 lbs
Gross Weight	7.6 kg / 16.72 lbs	11.6 kg / 25.5 lbs	9.2 kg / 20.24 lbs	15.4 kg / 33.88 lbs
Optional Wall-mount bracket	WPB-SV	WPB-SV	WPB-SV	WPB-SV

Note : Specification and graphs are created with the dedicated DSP presets.  
Specifications may be subject to change without notice.



## **WHARFEDALE PRO LIMITED WARRANTY**

Wharfedale Pro products are warranted of manufacturing or material defects for a period of three years from the original date of purchase. In the event of malfunction, contact your authorised Wharfedale Pro dealer or distributor for information.

Please be aware that the warranty details may differ from country to country. Contact your dealer or distributor for information (available at [www.wharfedalepro.com](http://www.wharfedalepro.com)). These terms do not infringe your statutory rights.



Wharfedale Professional  
IAG House 13/14 Glebe Road Huntingdon Cambridgeshire PE29 7DL UK  
[www.wharfedalepro.com](http://www.wharfedalepro.com)

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