

APG Live Manager Presets Guide



English version
1.8.10
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General information

APG Live Manager Presets Guide EN - 1.8.10 Version
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Preamble	5
<i>Important information - Gain structure</i>	5
Reminder of the modifications introduced since the 1.8.9 release:	6
Presets nomenclature :	7
<i>Mid / high speakers nomenclature :</i>	7
<i>Subwoofers nomenclature :</i>	8
Speakers Presets	9
<i>APG Live Manager 1.8.10</i>	9
Appendix 1: Application note for Uniline Compact Plug & Play presets	15

Release 1.8.10 - 2023-11

Preamble

Important Information - Gain Structure

The **APG Live Manager** software version stay in version **1.8.10**. and will no longer be updated.

Reminders on structure changes initiated since the previous version:

Among the most important changes is the change in sensitivity of the amplifiers (amplifier gain). The **gain is set at +32dB** for the entire range of APG processors and amplifiers. We invite users of UNIRACK / TOURACK and DMS48 / DMS48F / DMS48-D / DMS48F-D / SA20: 2 / SA30: 2 solutions to take care of changing the sensitivity of processors and amplifiers to + 32dB. The active protections in the preset banks have been configured to respect this amplification sensitivity value. **For the external processor platforms such as DMS48, the preset recall must be carried out via APG Live Manager 1.8.10. Preset recall via the front panel of the device is obsolete and should no longer be used.**

Warning! If the processor and the associated amplifier does not have identical sensitivity settings, the connected speakers will no longer be protected. APG cannot be held responsible for any material damage caused by incorrect settings.

The Analog/Digital conversion alignment has been changed to **0dBu = -24dBFS**.

Warning! In order to keep the new APG alignment, make sure that the following parameters are entered in the configuration of processors and amplifiers:

- APG Live Manager : AES & DANTE Trim = +4dB
- ArmoniaPlus : 'Reference 0dBFS to:' = 24dBu

Each speaker in the APG range is configured to reach its nominal level of use at **0dBu and offers 8dB of headroom**.

Warning! The relative gains between loudspeakers in the APG range could be changed during this release. Also, we recommend that you recreate your work sessions and pay attention to changes in gain between speakers, especially during Top / Subs connections. You may need to adjust the gain of the speakers in your APG Live Manager session from sessions recorded with previous versions of the software.

Warning! The headroom is guaranteed for a speaker powered by one input. In the case of mono summation of two input channels, the output level will be increased by + 6dB on Powersoft platforms (mono summation is automatically compensated on APG DMS48, DMS48F, DA15: 4, DA50: 4 platforms). To get the same headroom, you will therefore have to adjust the input gain to -6dB.

Warning! To align the APG system with digital mixing desks and to adapt the system with sound engineers habits, it is often necessary to adapt the gain structure using the «TRIM» parameter in APG Live Manager or «Reference 0dBFS to [x] dBu» in ArmoniaPlus (in the case of a digital connection, AES3 or DANTE) or directly modify the input gain parameters of the processors / amplifiers to DSP (in the case of 'an analog connection).

Reminder of the modifications introduced since the 1.8.9 release:

- Modified and harmonized **gain structure** between the electronic platforms (APG DMS48, APG DA Series, Powersoft Canali Series...).

- **Standardization of the speaker cut-off frequencies** for ease of use.

- Uniline and Uniline Compact:

- Fullrange preset changes to 60Hz LR24: directly compatible with 60Hz subs presets.

- Standardized cut-off frequencies: 60, 80, 110Hz.

- Fullrange mode: UC206 / UL210 = HPF @60Hz

- Extended Mode 1: UC206 x UC115B / UL210 x UL115B = Xover @110Hz

- Extended Mode 2: UC206 x UC118i / UL210 x UL118B = Xover @60Hz or Xover @80Hz (Xover @80Hz increase SPL)

- Full Mode: UC206 x UC115B x UC118i / UL210 x UL115B x UL118B
 110Hz 60Hz 110Hz 60Hz

- All speakers (except Uniline and Uniline Compact) have their low cutoff frequency in 18dB / Octave on the "Fullrange" preset.

This low cutoff frequency changes to Linkwitz-Riley 24dB / octave for the cutoff frequencies 60, 80, 110, 250Hz.

- All the subwoofers have their high cut-off frequency in LR24 (@60, @80, @110Hz) allowing direct compatibility with satellite speakers and Uniline and Uniline Compact systems.

- Creation of a «**System Presets**» bank for Powersoft ArmoniaPlus 2 platforms.

These system presets have been developed to facilitate the operation of simple systems.

Systems Presets are available for APG DA8; DA8AES; DA12; DA12AES amplifiers and for Powersoft Quattrocanali Series installation amplifiers (QC2404DSP; QC2404DSP+; QC2404DSP+D; QC4804DSP; QC4804DSP+; QC4804DSP+D).

The 'Stereo System Preset' is a complete session file to be opened in ArmoniaPlus (".paw3").

Preset nomenclature:

Within this new release, the nomenclature of the presets has been changed to be easier to understand.

Mid / high speakers nomenclature:

FR = FullRange = Wide Band. The low cutoff frequency of the speaker is as low as possible, the HPF type is a Butterworth 18dB / Octave, favoring wideband speaker listening.

WS = With Subwoofer. The low cutoff frequency of the speaker is specified (80, 110, 250). The HPF is a Linkwitz-Riley 24dB / Octave for an optimal subwoofer Xover.

MON = Monitor = Stage monitor. The preset is suitable for the speaker placed on the floor as a stage monitor. Very few corrections are applied to the speaker and latency is minimized.

AR = Array = Preset Line Array designed for an average coupling of 4 to 8 UC206N / W or 6 to 9 UL210 / D. The fullrange low cutoff frequency is @60Hz in Linkwitz-Riley 24dB / Octave for direct coupling with 18» subwoofers.

FI = Fill. Preset designed for a coupling of 1 to 4 UC206N / W. The fullrange low cutoff frequency is 60Hz in Linkwitz-Riley 24dB / Octave for direct coupling with 18 «subwoofers.

DF = Downfill. Preset designed to compensate the low-midrange level in the near field of the line-source, under the Uniline Compact cluster. The fullrange low cutoff frequency is 60Hz in Linkwitz-Riley 24dB / Octave for direct coupling with 18 «subwoofers.

Subwoofer nomenclature:

OM = Omnidirectional. Subwoofer preset with omnidirectional directivity. The high cutoff frequency (Xover) is specified (60, 80, 110). The LPF is a Linkwitz-Riley 24dB / Octave type for optimal coupling with a satellite or line-source speaker.

CD = Cardioid = Preset of subwoofers in cardioid pattern assembly.

The following letters give the type of topology used for the cardioid polar pattern assembly, specifying which subwoofer is returned:

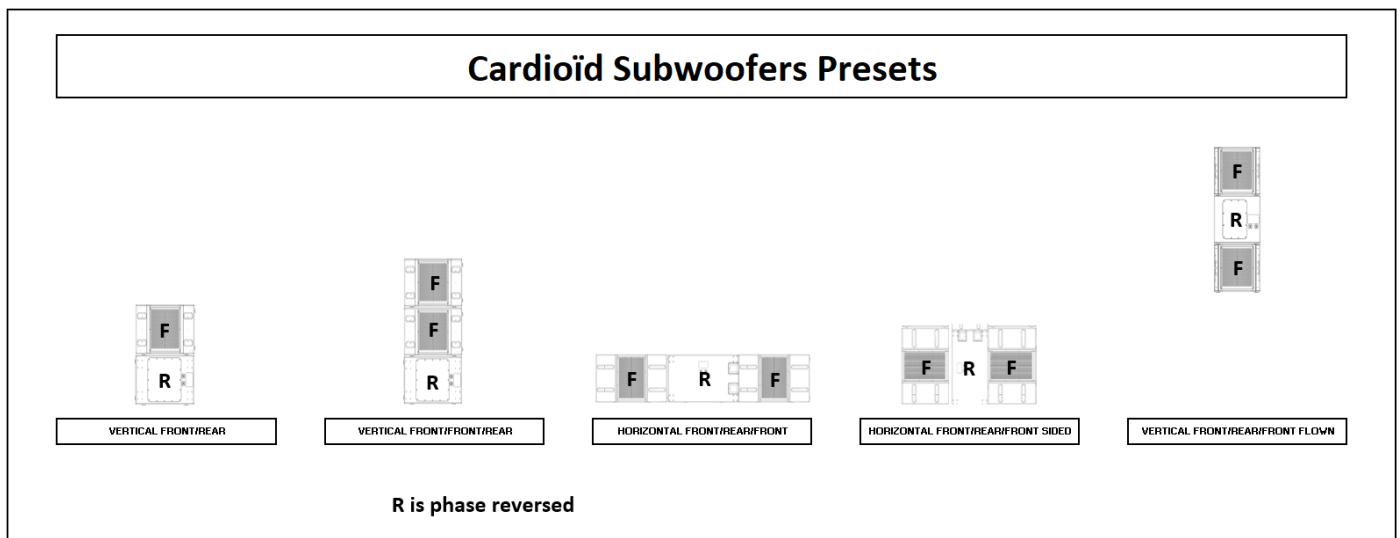
CD-V-FR = Cardioid Vertical Front Rear

CD-V-FFR = Cardioid Vertical Front Front Rear (used for stacked configurations)

CD-V-FRF = Cardioid Vertical Front Rear Front (used for flown configurations)

CD-H-FRF = Cardioid Horizontal Front Rear Front

CD-H-FRF-S = Cardioid Horizontal Front Rear Front Sided



Speakers Presets

APG Live Manager 1.8.10

The following list shows all the speaker presets embedded in the APG Live Manager 1.8.10 software.

ALM v1.8.10 bank	N°	Preset Name	Application
FLAT	1	FLAT MONO	FLAT Mono Preset
Dispersion Series	2	DX5 FR	DX5 Fullrange - FOH
	3	DX5 110	DX5 Xover=110Hz - FOH
	4	DX5 MON	DX5 Monitor
	5	DX8 FR	DX8 Fullrange - FOH
	6	DX8 110	DX8 Xover=110Hz - FOH
	7	DX8 MON	DX8 Monitor
	8	DX12 FR	DX12 Fullrange - FOH
	9	DX12 110	DX12 Xover=110Hz - FOH
	10	DX12 MON	DX12 Monitor
	11	DX15 FR	DX15 Fullrange - FOH
	12	DX15 80	DX15 Xover=80Hz - FOH
	13	DX15 110	DX15 Xover=110Hz - FOH
	14	DX15 MON	DX15 Monitor
	15	SMX15 FR	SMX15 Fullrange - FOH - Biamp
	16	SMX15 80	SMX15 Xover=80Hz - FOH
	17	SMX15 110	SMX15 Xover=110Hz - FOH
	18	SMX15 MON	SMX15 Monitor - Biamp
	iX Series	19	iX5 FR
20		iX5 110	iX5 Xover=110Hz - FOH
21		iX6 FR	iX6 Fullrange - FOH
22		iX6 110	iX6 Xover=110Hz - FOH
23		iX8 FR	iX8 Fullrange - FOH
24		iX8 110	iX8 Xover=110Hz - FOH
25		iX12 FR	iX12 Fullrange - FOH
26		iX12 80	iX12 Xover=80Hz - FOH
27		iX12 110	iX12 Xover=110Hz - FOH
28		iX15 FR	iX15 Fullrange - FOH
29		iX15 80	iX15 Xover=80Hz - FOH
30		iX15 110	iX15 Xover=110Hz - FOH

SPOT Series	31	SPOT2.6-4 FR	SPOT2.6 - 4Ohm version - Fullrange - FOH
	32	SPOT2.6-4 80	SPOT2.6 - 4Ohm version - Xover=80Hz - FOH
	33	SPOT2.6-4 110	SPOT2.6 - 4Ohm version - Xover=110Hz - FOH
	34	SPOT2.6-16 FR	SPOT2.6 - 16Ohm version - Fullrange - FOH
	35	SPOT2.6-16 80	SPOT2.6 - 16Ohm version - Xover=80Hz - FOH
	36	SPOT2.6-16 110	SPOT2.6 - 16Ohm version - Xover=110Hz - FOH
MC Series	37	MCx FR	MC2 Fullrange - FOH
	38	MCx 110	MC2 Xover=110Hz - FOH
Uniline Compact	39	UC206N AR 60	UC206N Array Xover=60Hz
	40	UC206N FI 60	UC206N Fill Xover=60Hz
	41	UC206W AR 60	UC206W Array Xover=60Hz
	42	UC206W FI 60	UC206W Fill Xover=60Hz
	43	UC206W DF 60	UC206W Downfill Xover=60Hz
	44	UC115B Bass OM 110	UC115B Bass Xover=110Hz - Omnidirectional
	45	UC115B Bass CD V-FFR- Stacked 110	UC115B Bass Xover=110Hz - Cardioid Vertical Front-Front-Rear - Stacked
	46	UC115B Bass CD V-FRF- Flown 110	UC115B Bass Xover=110Hz - Cardioid Vertical Front-Rear-Front - Flown
	47	UC115B Sub OM 110	UC115B Sub Xover=110Hz - Omnidirectional
	48	UC115B Sub CD V-FFR- Stacked 110	UC115B Sub Xover=110Hz - Cardioid Vertical Front-Front-Rear - Stacked
	49	UC115B Sub CD V-FRF- Flown 110	UC115B Sub Xover=110Hz - Cardioid Vertical Front-Rear-Front - Flown

	50	UC115B Sub CD H-FRF 110	UC115B Sub Xover=110Hz - Cardioid Horizontal Front-Rear-Front - Stacked
	51	UC118i OM 60	UC118i Xover=60Hz - Omnidirectional
	52	UC118i OM 80	UC118i Xover=80Hz - Omnidirectional
	53	UC118i OM 110	UC118i Xover=110Hz - Omnidirectional
	54	UC118i CD V-FR 80	UC118i Xover=80Hz - Cardioid Vertical Front-Rear
	55	UC118i CD V-FFR-Stacked 80	UC118i Xover=80Hz - Cardioid Vertical Front-Front-Rear - Stacked
	56	UC118i CD V-FRF-Flown 80	UC118i Xover=80Hz - Cardioid Vertical Front-Rear-Front - Flown
	57	UC118i CD H-FRF 80	UC118i Xover=80Hz - Cardioid Horizontal Front-Rear-Front - Stacked
Uniline	58	UL210 AR 60	UL210 Array Xover=60Hz
	59	UL210D AR 60	UL210D Array Xover=60Hz
	60	UL115B OM 110	UL115B Sub Xover=110Hz - Omnidirectional
	61	UL115B CD V-FFR-Stacked 110	UL115B Sub Xover=110Hz - Cardioid Vertical Front-Front-Rear - Stacked
	62	UL115B CD V-FRF- Flown 110	UL115B Sub Xover=110Hz - Cardioid Vertical Front-Rear-Front - Flown
	63	UL115B CD H-FRF 110	UL115B Sub Xover=110Hz - Cardioid Horizontal Front-Rear-Front - Stacked
	64	UL118B OM 60	UL118B Xover=60Hz - Omnidirectional
	65	UL118B OM 80	UL118B Xover=80Hz - Omnidirectional
	66	UL118B CD V-FFR-Stacked 80	UL118B Xover=80Hz - Cardioid Vertical Front-Front-Rear - Stacked
	67	UL118B CD V-FRF-Flown 80	UL118B Xover=80Hz - Cardioid Vertical Front-Rear-Front - Flown
	68	UL118B CD H-FRF 80	UL118B Xover=80Hz - Cardioid Horizontal Front-Rear-Front - Stacked

SB Series	69	SB110 OM 110	SB110 Xover=110Hz - Omnidirectional
	70	SB112 OM 110	SB112 Xover=110Hz - Omnidirectional
	71	SB115 OM 110	SB115 Xover=110Hz - Omnidirectional
	72	SB115 CD V-FR 110	SB115 Xover=110Hz - Cardioid Vertical Front-Rear - Stacked
	73	SB115 CD V-FFR 110	SB115 Xover=110Hz - Cardioid Vertical Front-Front-Rear - Stacked
	74	SB115 CD H-FRF 110	SB115 Xover=110Hz - Cardioid Horizontal Front-Rear-Front - Stacked
	75	SB115-M2 OM 110	SB115-M2 Xover=110Hz - Omnidirectional
	76	SB115-M2 CD V-FR 110	SB115-M2 Xover=110Hz - Cardioid Vertical Front-Rear - Stacked
	77	SB115-M2 CD V-FFR 110	SB115-M2 Xover=110Hz - Cardioid Vertical Front-Front-Rear - Stacked
	78	SB115-M2 CD H-FRF 110	SB115-M2 Xover=110Hz - Cardioid Horizontal Front-Rear-Front - Stacked
	79	SB118 OM 80	SB118 Xover=80Hz - Omnidirectional
TB Series	80	TB115S OM 80	TB115S Xover=80Hz - Omnidirectional
	81	TB115S OM 110	TB115S Xover=110Hz - Omnidirectional
	82	TB115S CD V-FFR 110	TB115S Xover=110Hz - Cardioid Vertical Front-Front-Rear - Stacked

	83	TB115S CD H-FRF 110	TB115S Xover=110Hz - Cardioid Horizontal Front-Rear-Front - Stacked
	84	TB115S CD H-FRF-S 110	TB115S Xover=110Hz - Cardioid Horizontal Front-Rear-Front - Sided Stacked
	85	TB215S OM 80	TB215S Xover=80Hz - Omnidirectional
	86	TB215S OM 110	TB215S Xover=110Hz - Omnidirectional
	87	TB215S CD V-FFR 110	TB215S Xover=110Hz - Cardioid Vertical Front-Front-Rear - Stacked
	88	TB215S CD H-FRF 110	TB215S Xover=110Hz - Cardioid Horizontal Front-Rear-Front - Stacked
	89	TB215S CD H-FRF-S 110	TB215S Xover=110Hz - Cardioid Horizontal Front-Rear-Front - Sided Stacked
	90	TB118S OM 60	TB118S Xover=60Hz - Omnidirectional
	91	TB118S OM 80	TB118S Xover=80Hz - Omnidirectional
	92	TB118S OM 110	TB118S Xover=110Hz - Omnidirectional
	93	TB118S CD V-FFR 110	TB118S Xover=110Hz - Cardioid Vertical Front-Front-Rear - Stacked
	94	TB118S CD H-FRF 110	TB118S Xover=110Hz - Cardioid Horizontal Front-Rear-Front - Stacked
	95	TB118S CD H-FRF-S 110	TB118S Xover=110Hz - Cardioid Horizontal Front-Rear-Front - Sided Stacked
	96	TB218S OM 60	TB218S Xover=60Hz - Omnidirectional
	97	TB218S OM 80	TB218S Xover=80Hz - Omnidirectional
	98	TB218S OM 110	TB218S Xover=110Hz - Omnidirectional
	99	TB218S CD V-FFR 110	TB218S Xover=110Hz - Cardioid Vertical Front-Front-Rear - Stacked
	100	TB218S CD H-FRF 110	TB218S Xover=110Hz - Cardioid Horizontal Front-Rear-Front - Stacked
	101	TB218S CD H-FRF-S 110	TB218S Xover=110Hz - Cardioid Horizontal Front-Rear-Front - Sided Stacked
Matrix Series	102	4000 LO 160	4000LO Xover=160Hz
	103	4000 HI 2 way FR	4000HI 2 way
	104	4000 3 way	4000 3 way

Sector Series	105	3000C FR	3000C Fullrange - FOH
	106	SC25 FR	SC25 Fullrange - FOH
	107	SC25 250	SC25 Xover=250Hz - FOH
iS Series	108	iS110 OM 110	iS110 Xover=110Hz - Omnidirectional
	109	iS110 CD V-FR 110	iS110 Xover=110Hz - Cardioid Vertical Front-Rear
	110	iS112 OM 110	iS112 Xover=110Hz - Omnidirectional
	111	iS112 CD V-FR 110	iS112 Xover=110Hz - Cardioid Vertical Front-Rear
	112	iS115 OM 80	iS115 Xover=80Hz - Omnidirectional
	113	iS115 CD V-FR 80	iS115 Xover=80Hz - Cardioid Vertical Front-Rear
	114	iS115 OM 110	iS115 Xover=110Hz - Omnidirectional
	115	iS115 CD V-FR 110	iS115 Xover=110Hz - Cardioid Vertical Front-Rear
Legacy	116	MX0 FR	MX0 Fullrange - FOH
	117	MX1 FR	MX1 Fullrange - FOH
	118	MX2 FR	MX2 Fullrange - FOH
	119	MX4 FR	MX4 Fullrange - FOH
	120	DS8 FR	DS8 Fullrange - FOH
	121	DS12S FR	DS12S Fullrange - FOH
	122	DS15 FR	DS15 Fullrange - FOH
	123	DS15S FR	DS15S Fullrange - FOH
	124	DS15R MON	DS15R Monitor

Appendix 1: Application note for Uniline Compact Plug & Play presets

PRESETS PLUG AND PLAY - NOTE EXPLICATIVE

Introduction

The purpose of this document is to present the “Plug & Play” system configuration presets at APG. These presets are intended to make it easier for the user to set up and operate APG sound systems. Their purpose is to allow fast tuning of the configuration chosen via the ArmoniaPlus software by recalling the dedicated system preset.

Tonal balance and bass contour

The Plug & Play presets allow all types of use: vocal application, indoor or outdoor concert... The tonal balance chosen by APG for these systems allows the use of the system for every type of music.



These presets allow ease of use, time saving and provide average performance in all types of places where sound is needed. To increase flexibility, APG leaves the user the possibility of adjusting the tuning parameters and adapting the tonal balance: lo-shelf / hi-shelf adjustment of ± 3 dB. However, these presets do not in any way replace the optimization work of a system engineer and are therefore to be used only in the absence of the engineer or to save preparation time.

Possibilities for adjusting APG Plug & Play presets

Depending on use, the operator may need to modify the parameters of the Plug & Play preset.

It is possible to adjust the delay if the mechanical configuration varies slightly from the recommendations (for example: standing speakers rather than tube speakers) knowing that the presets were created by considering an alignment of the grids for the presets of the **Uniline Compact**.

APG stacked configurations: choice of angles, couplings, fixing holes, etc.

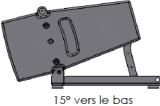
Preamble on the angulation of APG stacked systems

The 0° speaker coupling is reserved for the use of systems in long throw mode. Indeed, with this type of coupling, the treble tends to be particularly present and unbalances the frequency response of the system for the short / medium range.

In order to use the system in short / medium range mode, APG recommend to favor couplings with decreasing angles to attenuate the density in the treble.

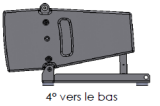
To adjust the angulations between your speakers, refer to the EASE Focus simulation software. As a reminder here is the angle correspondence table for the UC206 on the UCSTACK:

CORRESPONDANCE ANGLES UCSTACK



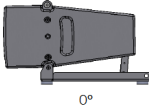
15° vers le bas

Angle sur UC206	Angle résultant
0	-15
1	-14
2	-13
3	-12
4	-11
5	-10
6	-9
7	-8
8	-7
9	-6
10	-5
11	-4
12	-3
13	-2
14	-1
15	0

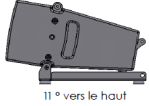


4° vers le bas


Angle sur UC206	Angle résultant
0	-4
1	-3
2	-2
3	-1
4	0
5	1
6	2
7	3
8	4
9	5
10	6
11	7
12	8
13	9
14	10
15	11




0°



11° vers le haut



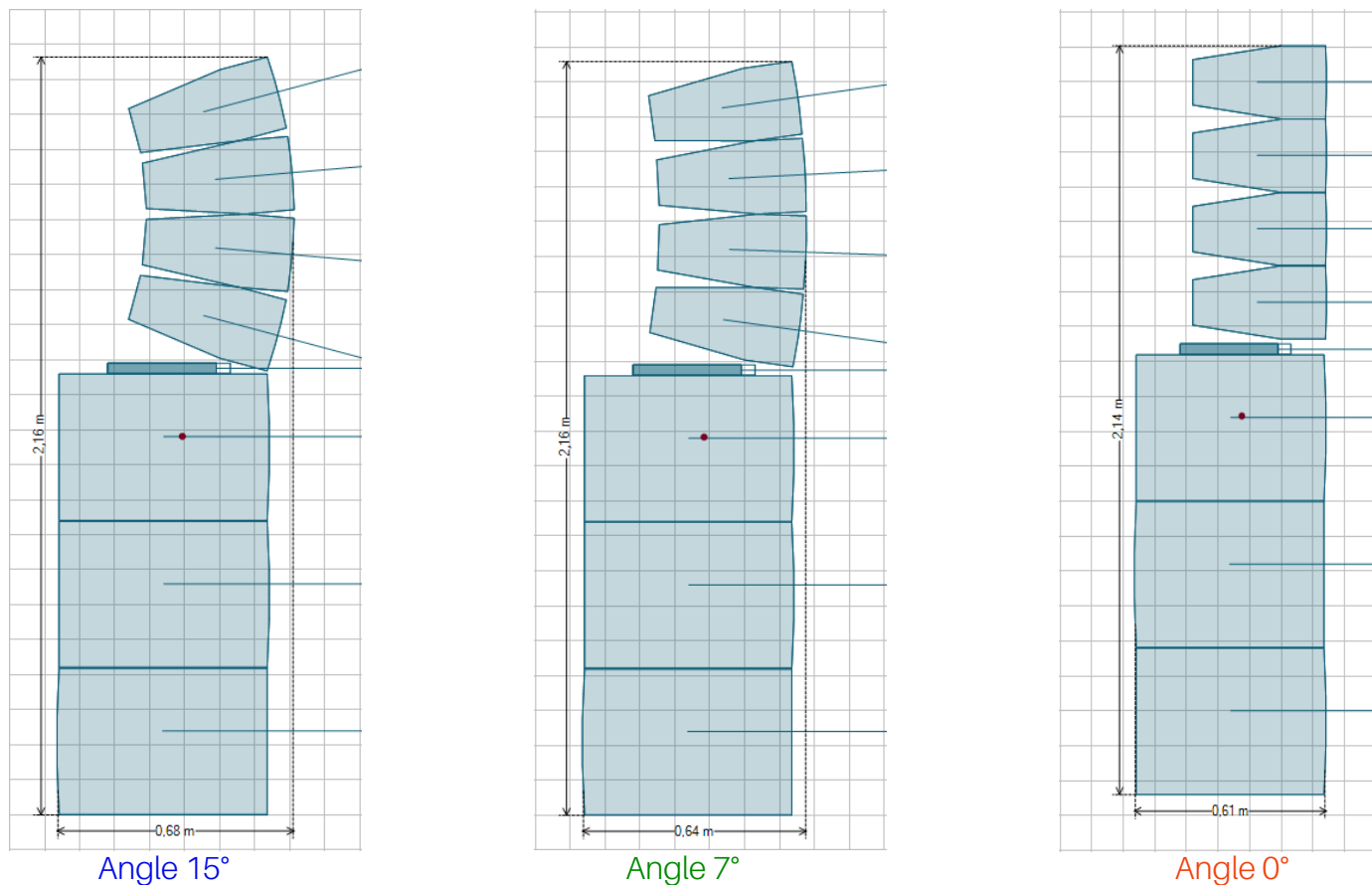
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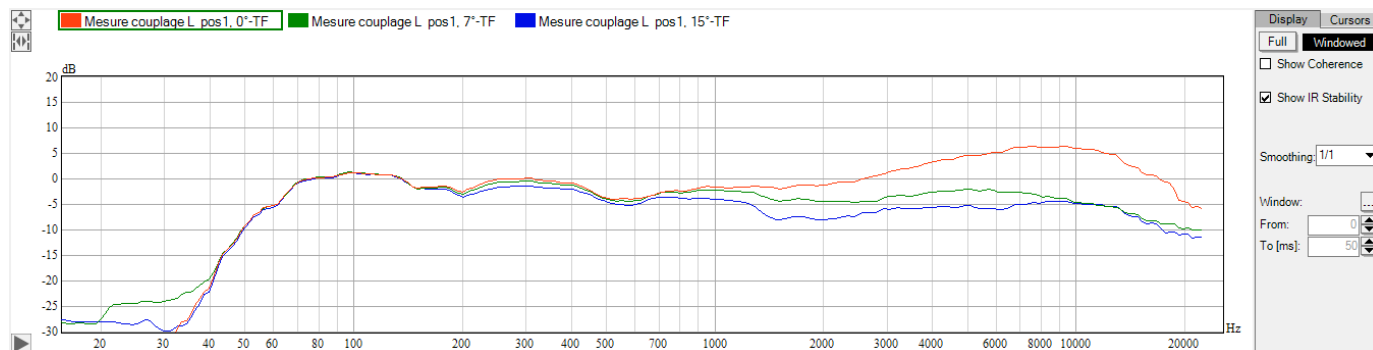
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Stacked configurations examples

These 3 examples show the influence of angulation on the loudspeakers coupling and system frequency response.



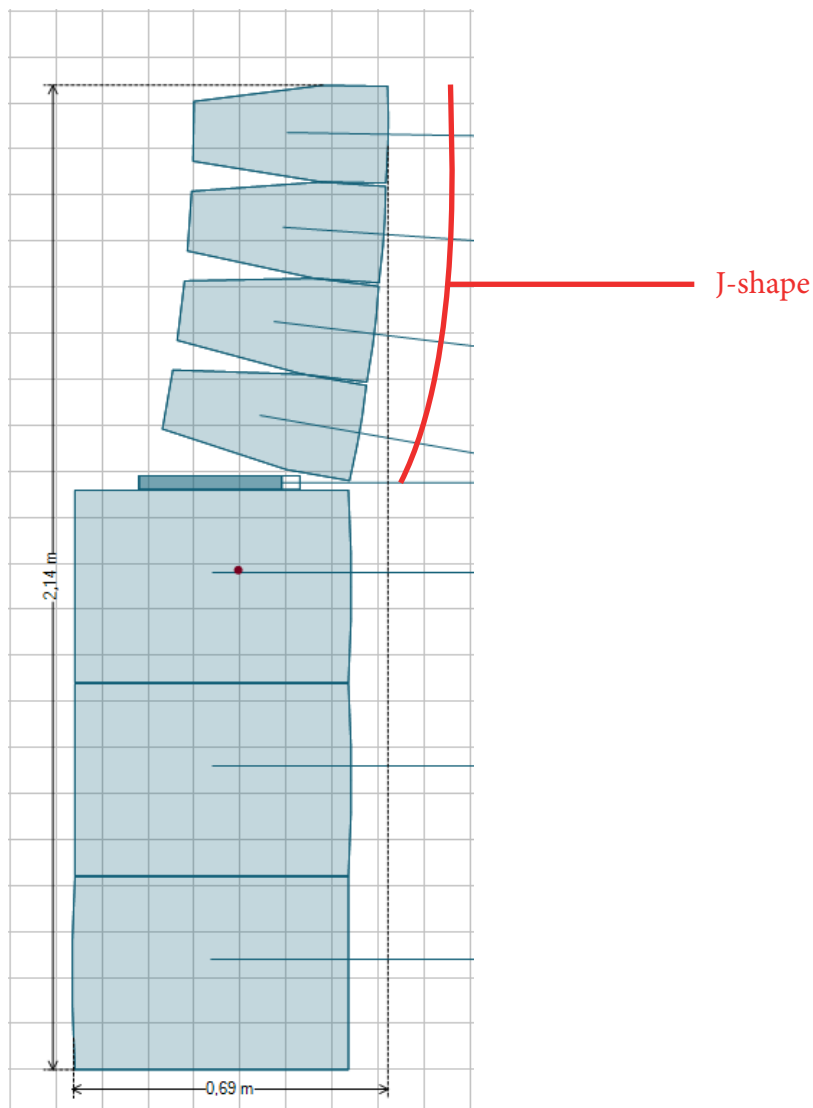
The following curves illustrates the frequency response of the system for the 3 examples of couplings:



We can see that the tighter are the angles between speakers, the more the coupling in the midrange / treble increases linearly from about 600 Hz.

Preset PnP 2

For this stacked configuration with 4 UC206N or W on 3 UC115B in cardioid mode, there are many possibilities of angulation between the line-source cabinets. The **Plug & Play 2** preset has been optimized for an average angulation of 3 ° between speakers (in the event that the system tech does not have time to make a more precise shot). This scenario can handle 70% of the use cases for this stacked configuration. Obviously it is best to adapt the angles between speakers to the coverage area using the EASE Focus software. We recommend a «J-shape» type angle variation (illustration below) in order to linearize coverage over the audience area.

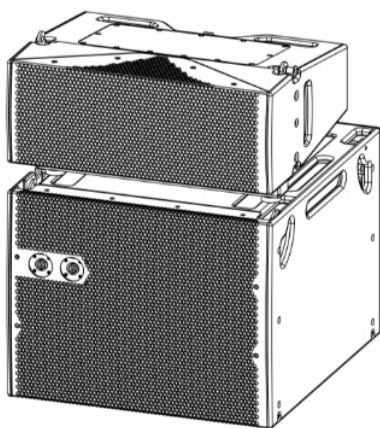


Choice of the UCSTACK mounting hole on UC115B

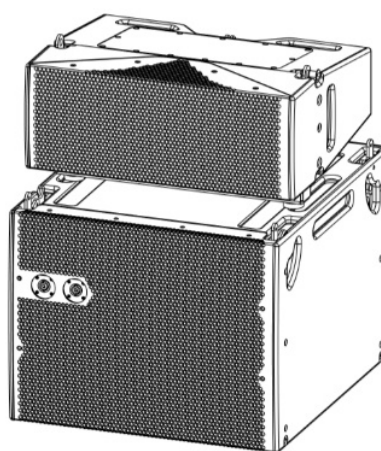
For this stacked configuration, there are two possible mounting holes for the UCSTACK on the UC115B. The **Plug & Play 2** preset has been optimized so that the speaker grills are aligned (hole 1).

UC206N

UC206N + UC115B hole 1

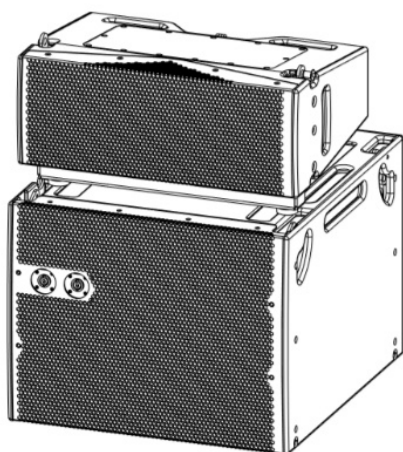


UC206N + UC115B hole 2

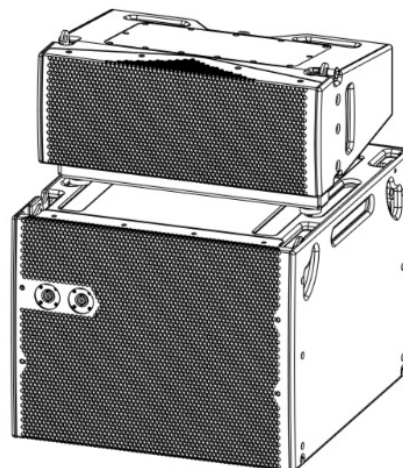


UC206W

UC206W + UC115B hole 1



UC206W + UC115B hole 2



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