

6FR LOUDSPEAKER

INSTALLATION & REFERENCE MANUAL

Version 1.0 EN/5.2021

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CONTENTS

1. Warning ! and Important Safety Instructions.....	3
2. Product Datasheet.....	4
3. Product Description & Features.....	5
4. Product Dimensions.....	6
5. Product Installation Accessories - C Clamp.....	7
6. Product Installation Accessories - Swivel Clamp.....	10
7. Internal Wiring Schematic.....	13
8. Electro-Acoustic responses.....	14
9. Tone curves.....	18
10. Applications - Hospitality 1	19
11. Applications - Hospitality 2	20
12. Applications - Hospitality 3	21
13. Applications - Domestic 1	22
14. Applications - Domestic 2	23
15. Applications - Domestic 3	24
16. Applications - Retail 1	25
17. Applications - Retail 2.....	26
18. Applications - Retail 3	27



WARNING ! IMPORTANT SAFETY INSTRUCTIONS

Thank you for choosing Brutal Audio Sound Systems.

Please read the owner's/installation manual carefully to ensure optimum performance of the sound system as intended by the designer.

Please ensure use of the FR series of loudspeakers with their dedicated DSP presets to achieve their optimum best.

Brutal Audio will not be responsible for damage caused by improper use or modifications to this product.

Brutal Audio will not be responsible for damage caused by improper installation or optimization of this product.

Clean only with dry cloth.

Keep this product away from moisture and water.

Do not expose this product to direct rain.

Do not expose this product to direct sunlight.

Keep this product away from Hard Drives/Hard Disks.

Do not install near any heat sources such as radiators, stoves, or other heat producing apparatus.

Use only accessories specified/supplied by the Brutal Audio.

No user serviceable parts inside.

Refer all servicing to qualified service personnel.

PLEASE READ CAREFULLY BEFORE INSTALLATION AND USE

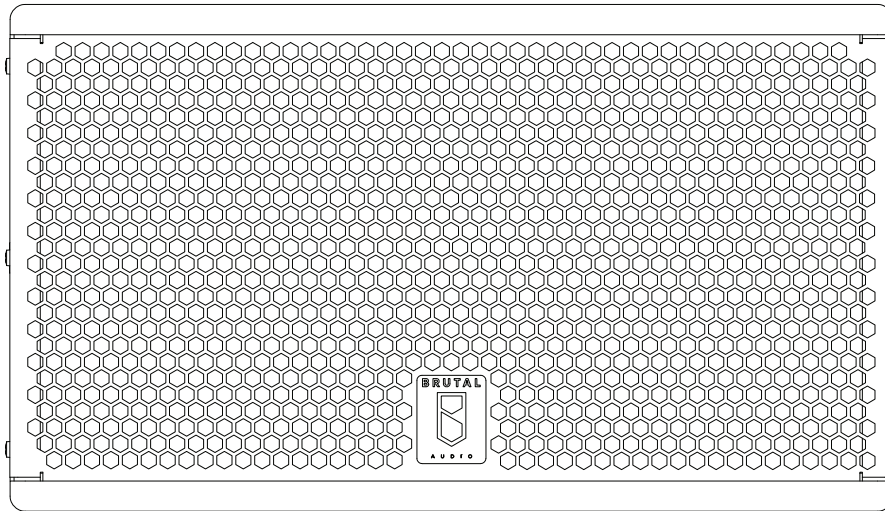
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6FR

6 INCH FULLRANGE



TECHNICAL SPECIFICATIONS

AXIAL SENSITIVITY	92dB@1W/1M
IMPEDANCE	8 OHMS
DRIVER	FR : 6" PAPER CONE
ENCLOSURE	PORTED
MAX SPL	110dB@1m
POWER	100W CONT / 200W MAX
FREQUENCY RESPONSE	70Hz TO 18kHz +/-6dB
DIMENSIONS	(HxWxD) 201mm x 350mm x 265mm
WEIGHT	6.5KGS / 14.33 LBS

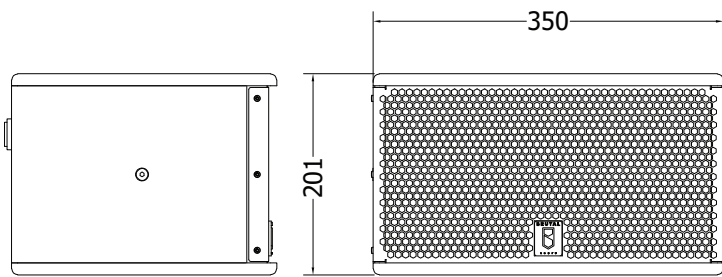
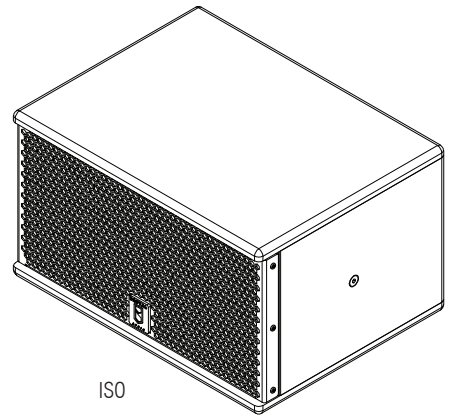
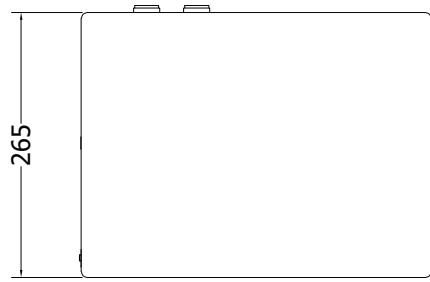
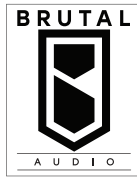


6FR

6 INCH FULLRANGE

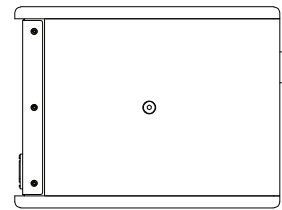
Description & Features

- The 6FR is a compact ported loudspeaker enclosure employing a 6" full-range dual-cone driver.
- Specifically designed as a surface mount BGM (Back Ground Music) loudspeaker.
- The 6" driver can handle 100 watts of power due to its large ferrite magnet and 1.5" voice coil.
- The copper demodulating ring in the motor ensures linearity in the loudspeaker system.
- The enclosure's paint finish and heavy-duty 16 gauge steel grill provide serious protection.
- Backed with acoustically transparent foam/cloth, these grills are designed for sonic accuracy, structural strength, and professional good looks.
- Built-in Passive Tone Curve : This enclosure comes with a built-in passive equalizer. This comes in handy in budget projects where one cannot afford a digital signal processor / loudspeaker management system in the audio chain.
- Built-in Passive Speaker Protection : The 6FR has internal auto re-settable fuses to prevent damage to the driver from high voltages and excessive cone excursion.

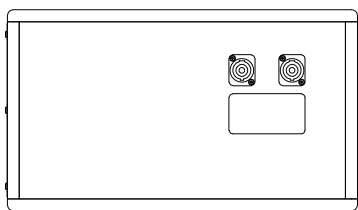


LEFT

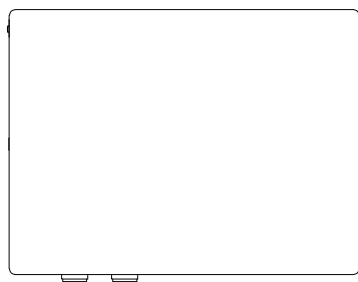
FRONT



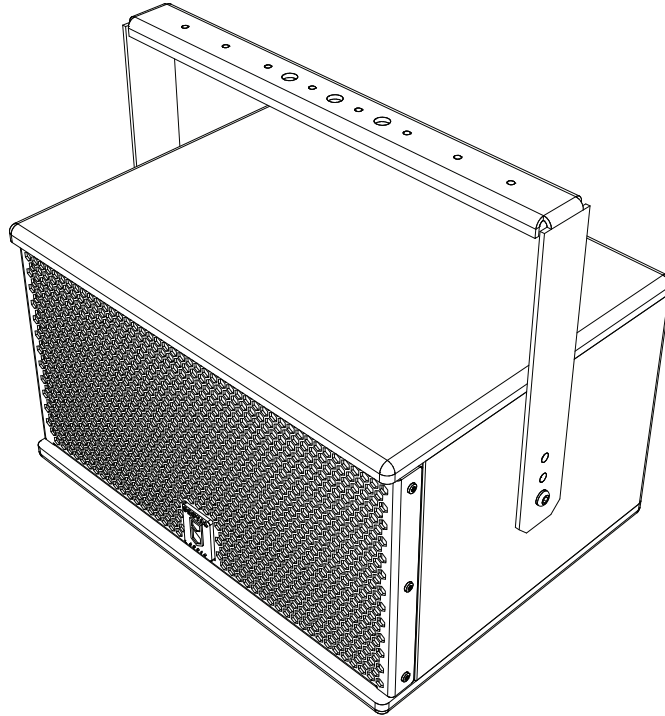
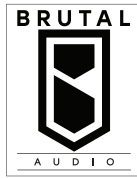
RIGHT



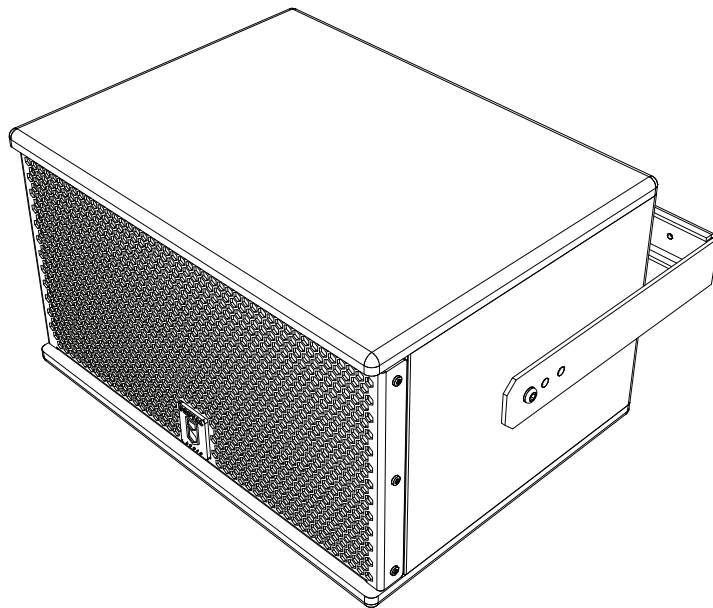
REAR



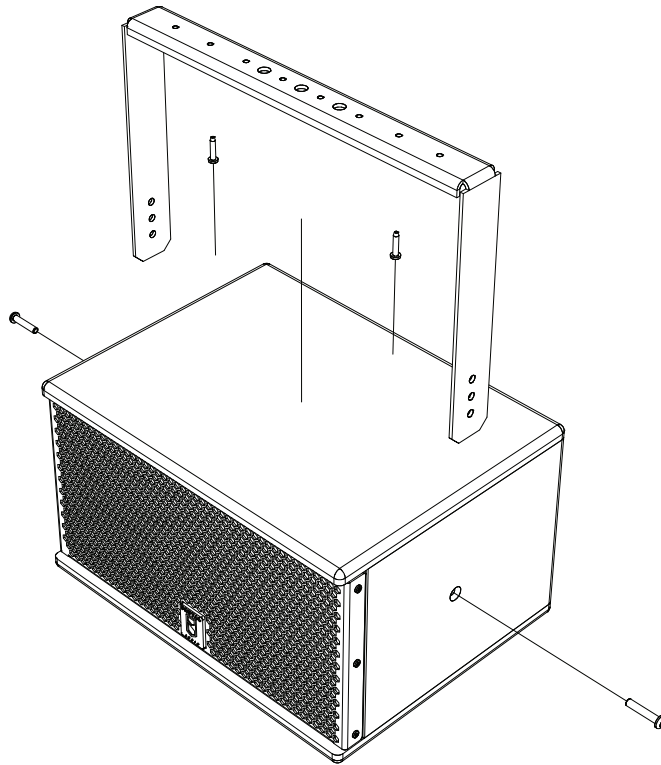
BOTTOM



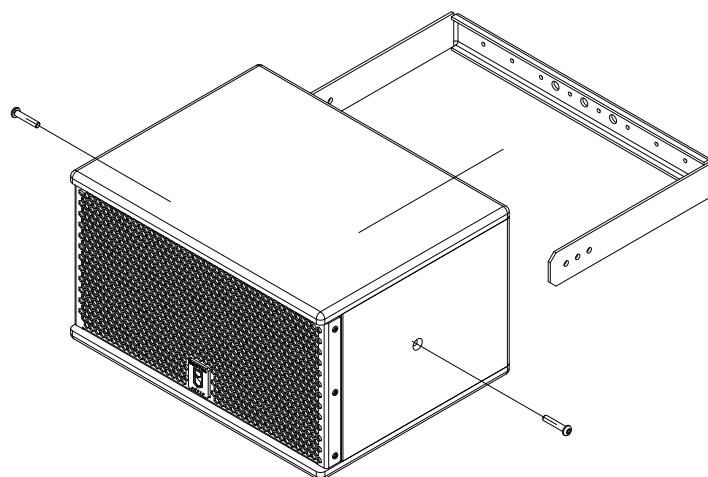
6FR - CEILING MOUNTED



6FR - WALL MOUNTED

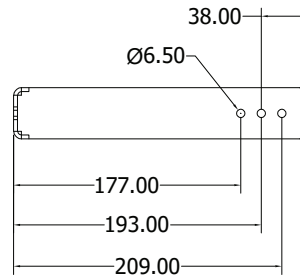
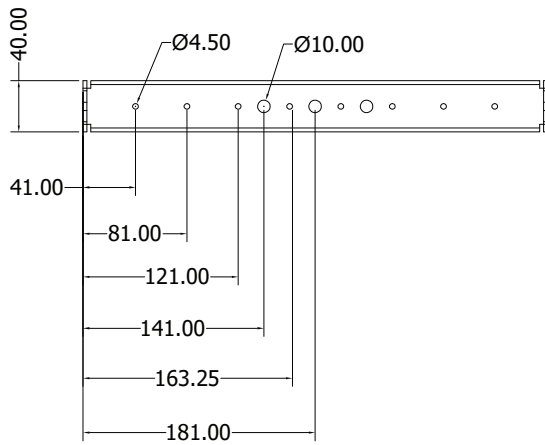
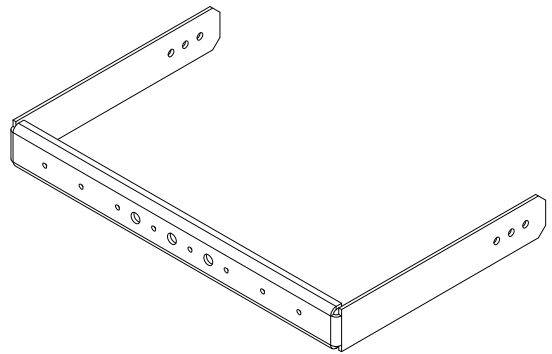
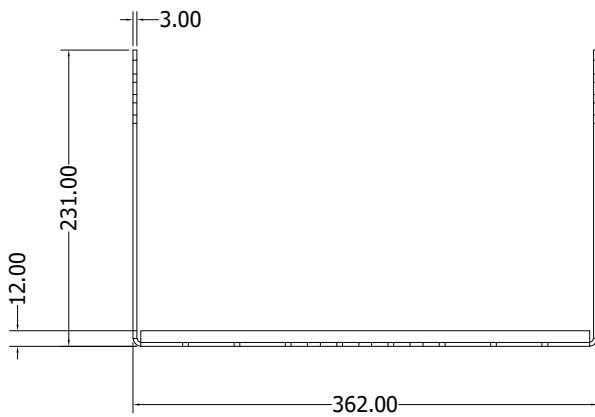


6FR - CEILING INSTALLATION WITH C CLAMP

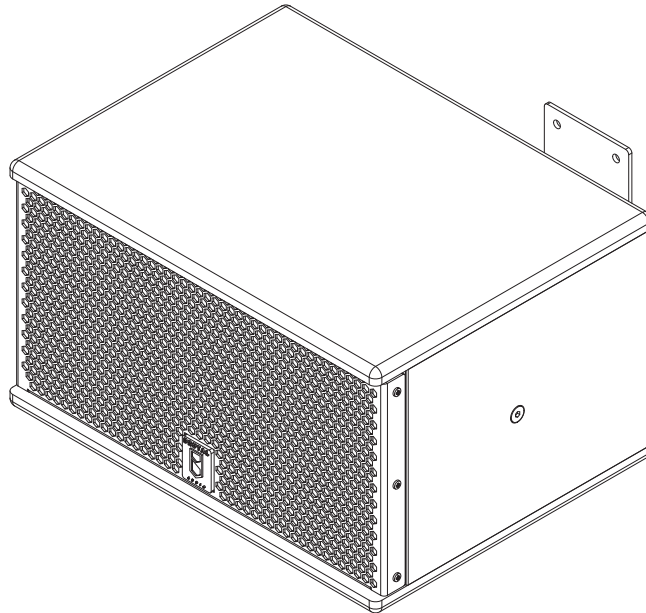


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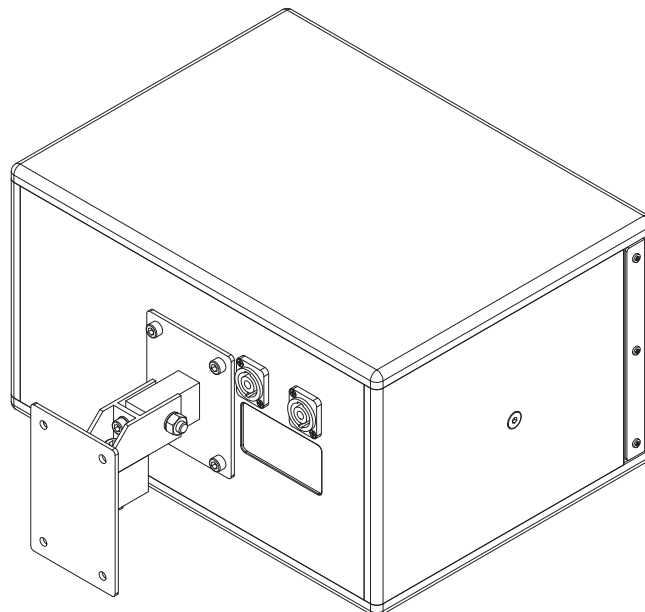
CAUTION ! INSTALLATION TO BE DONE BY EXPERIENCED TECHNICIAN !



6FR - C CLAMP DETAILS

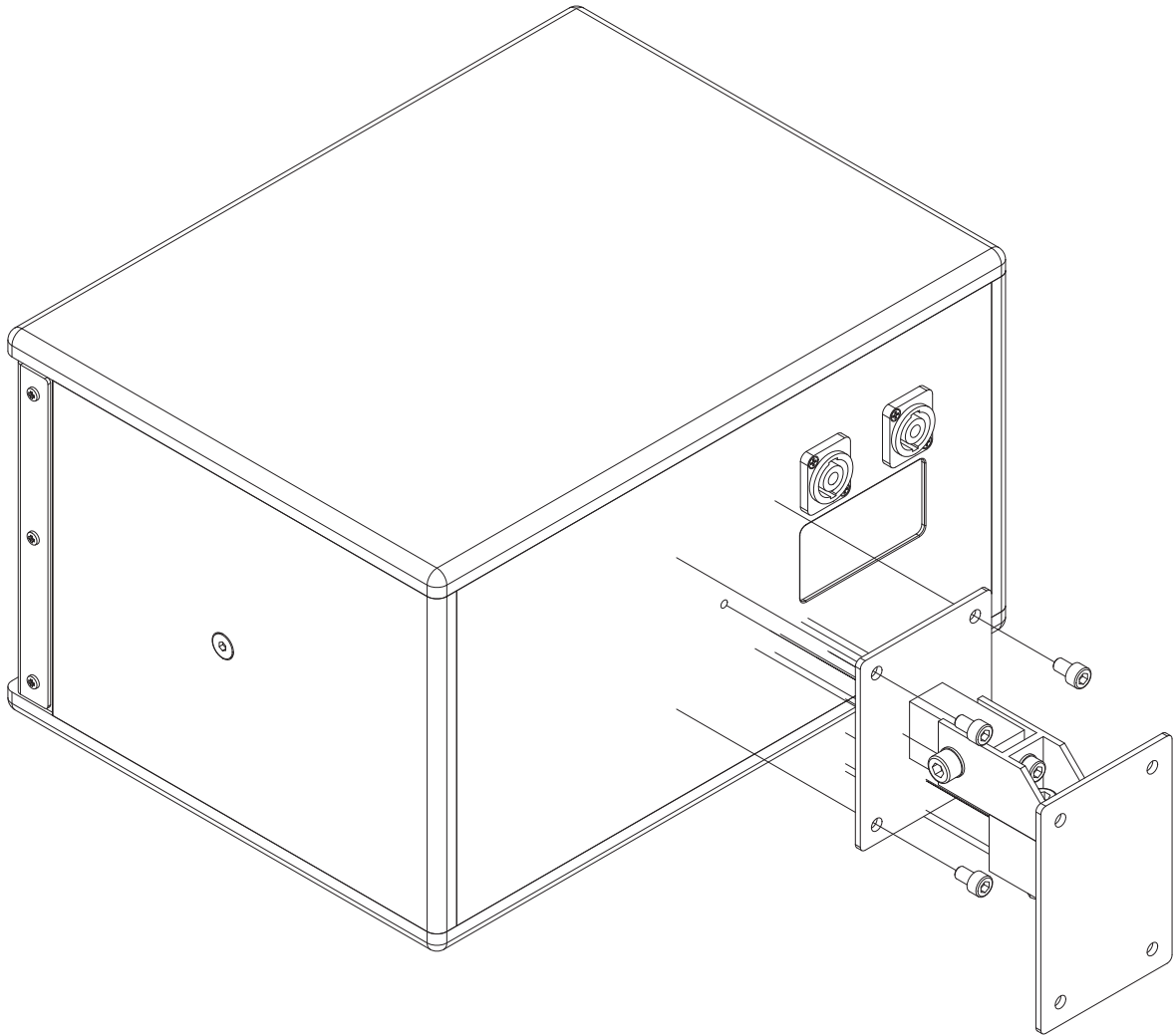
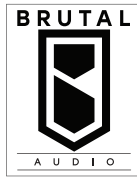


6FR - WALL INSTALLATION WITH SWIVEL CLAMP

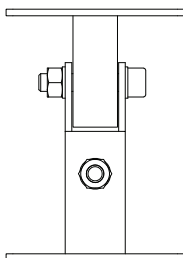
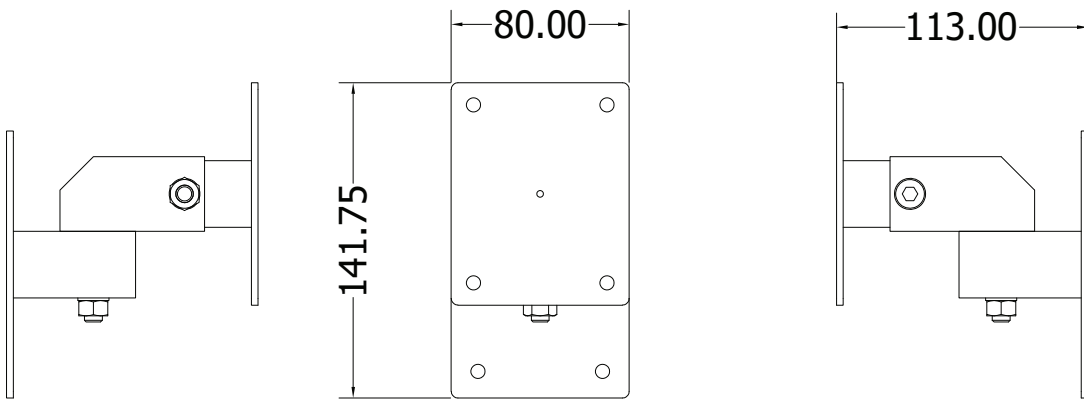
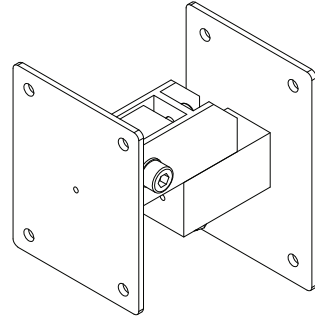
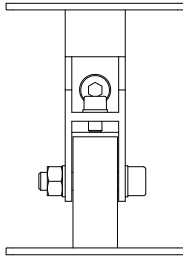
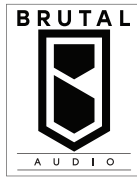


6FR - WALL INSTALLATION WITH SWIVEL CLAMP

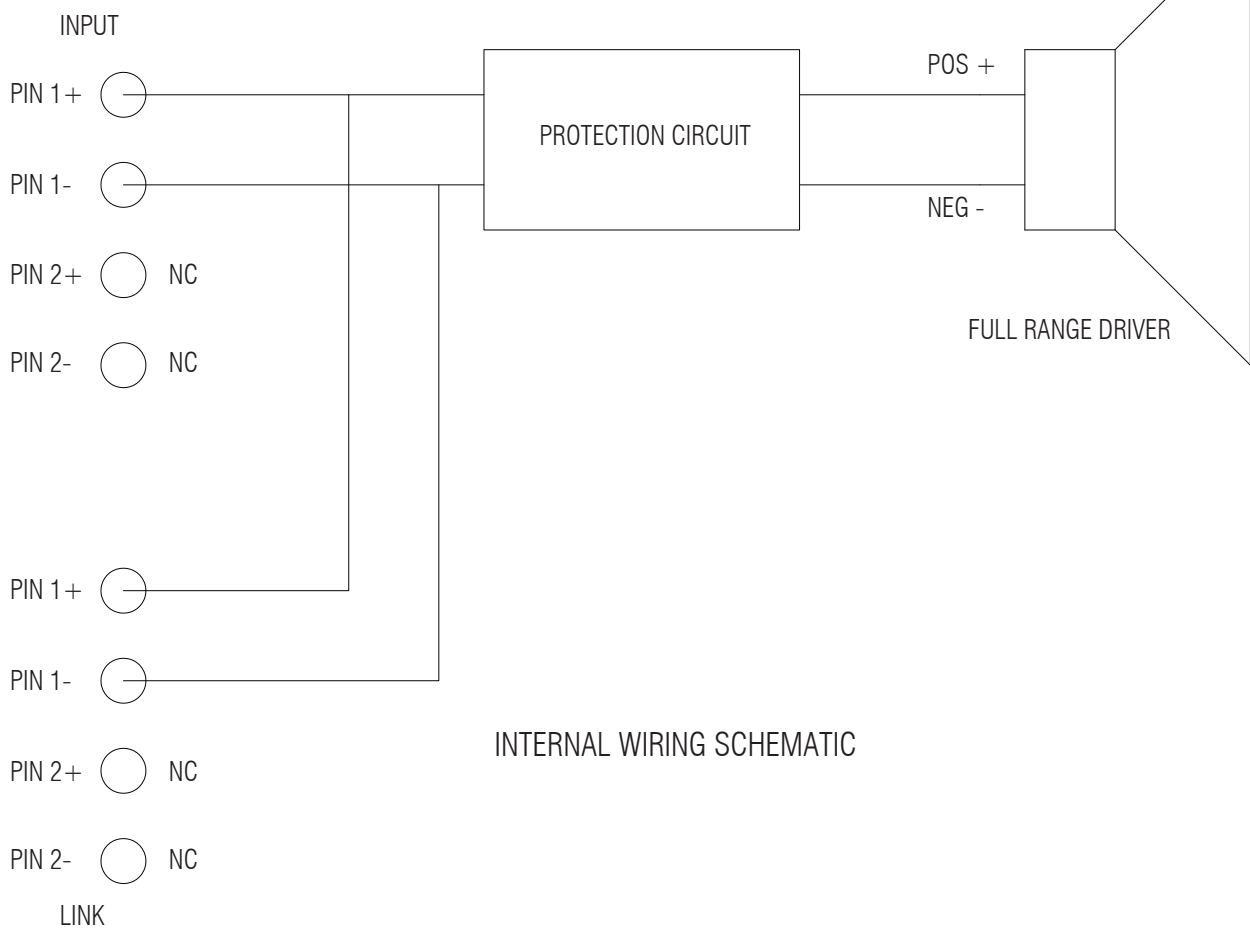
CAUTION ! INSTALLATION TO BE DONE BY EXPERIENCED TECHNICIAN !



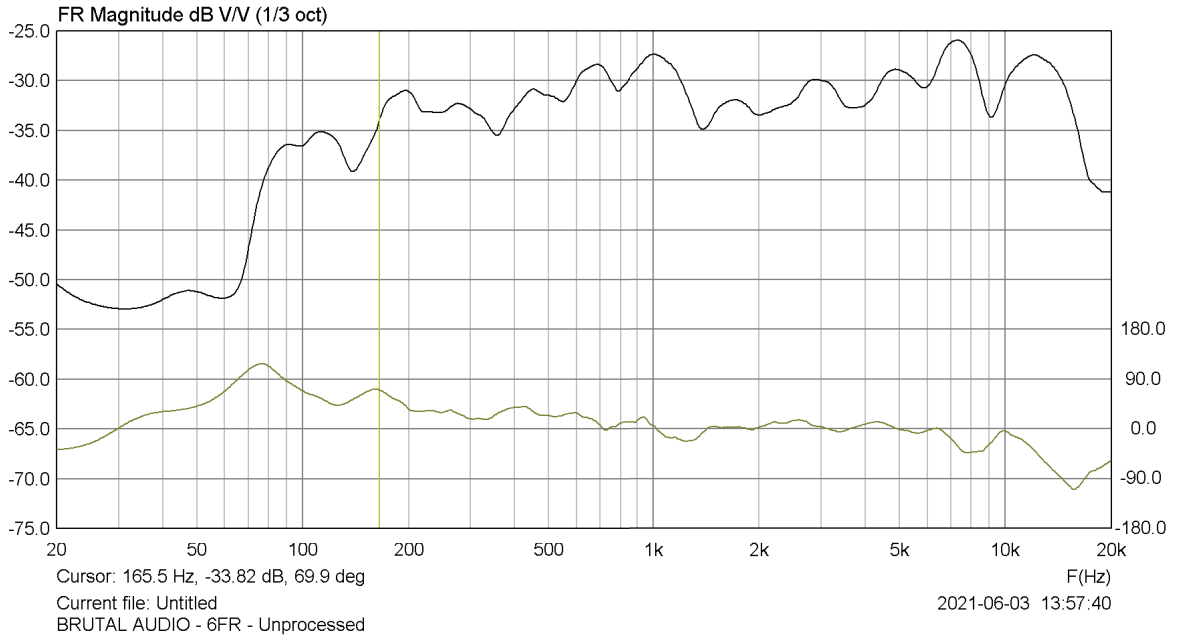
6FR - SWIVEL CLAMP FOR WALL INSTALLATION



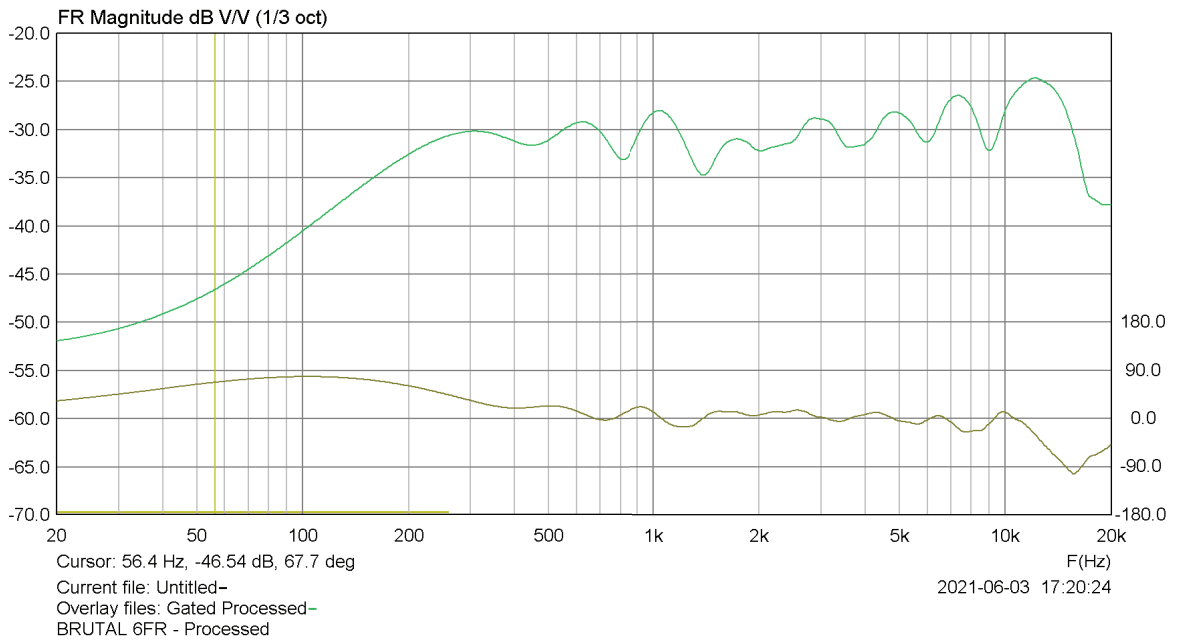
6FR - SWIVEL CLAMP DETAILS



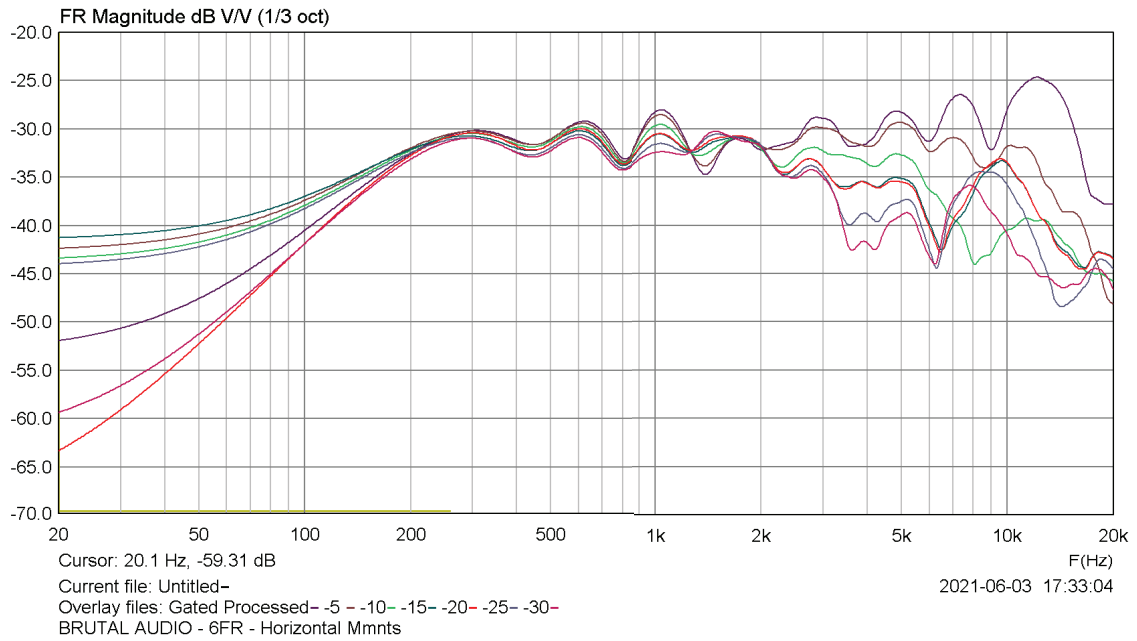
*NC - NOT CONNECTED



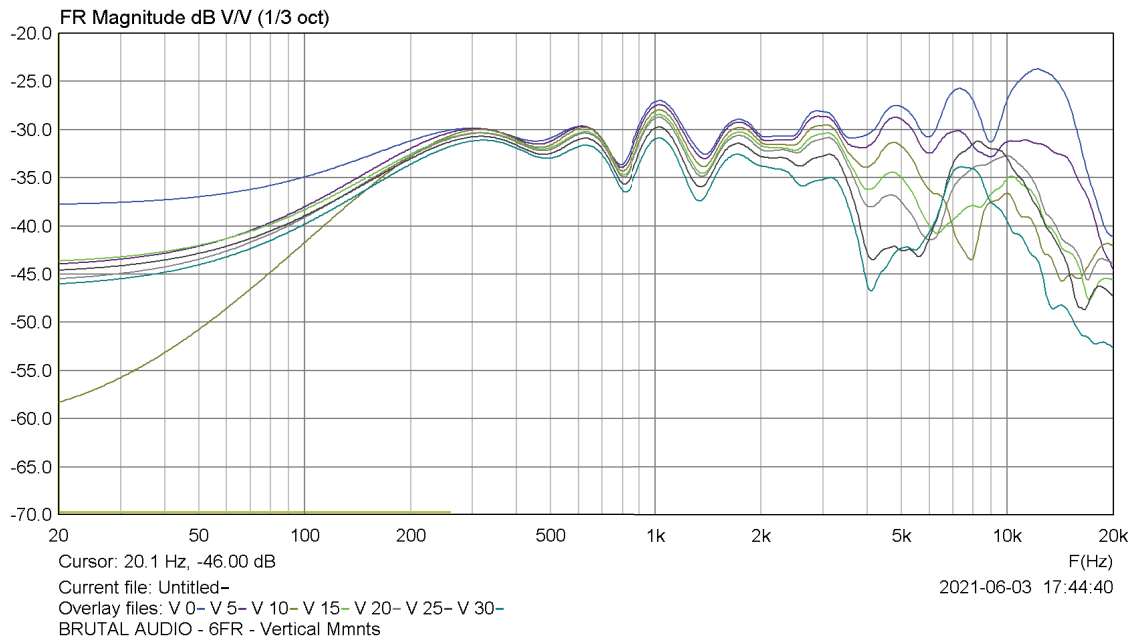
FREQUENCY RESPONSE - UNPROCESSED



FREQUENCY RESPONSE - PROCESSED



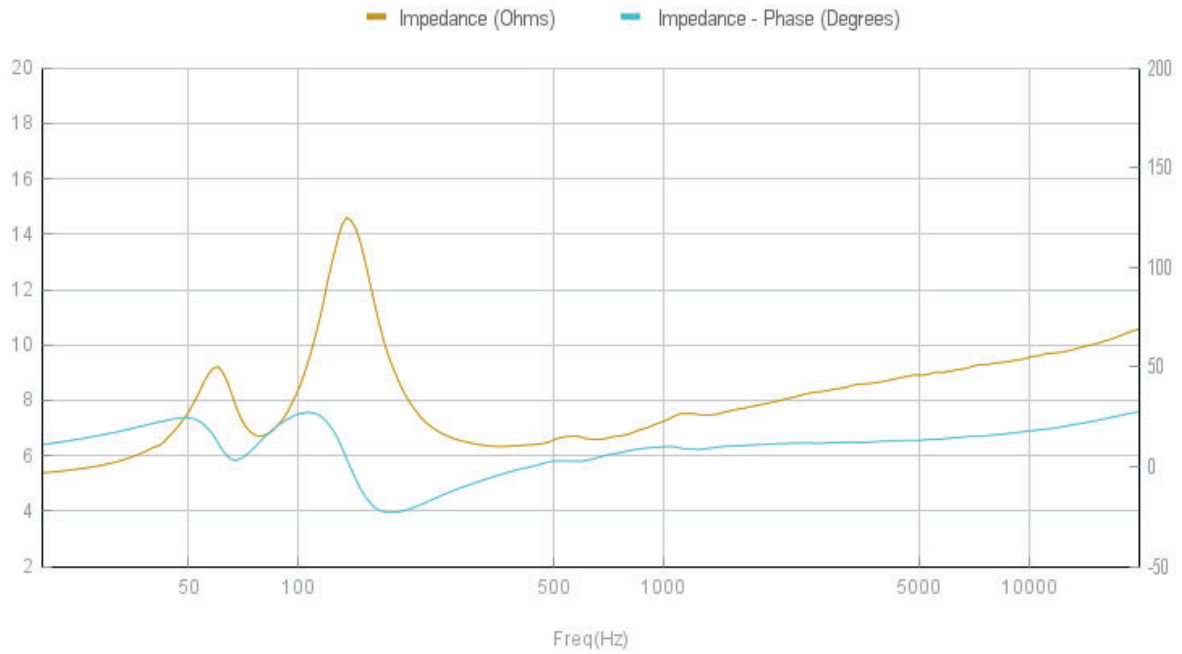
HORIZONTAL OFF-AXIS RESPONSE



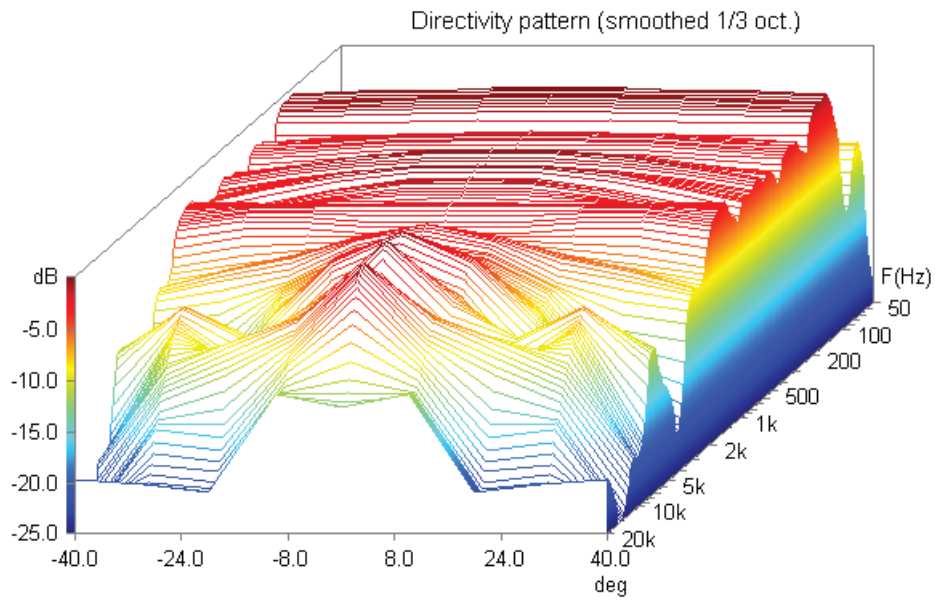
VERTICAL OFF-AXIS RESPONSE



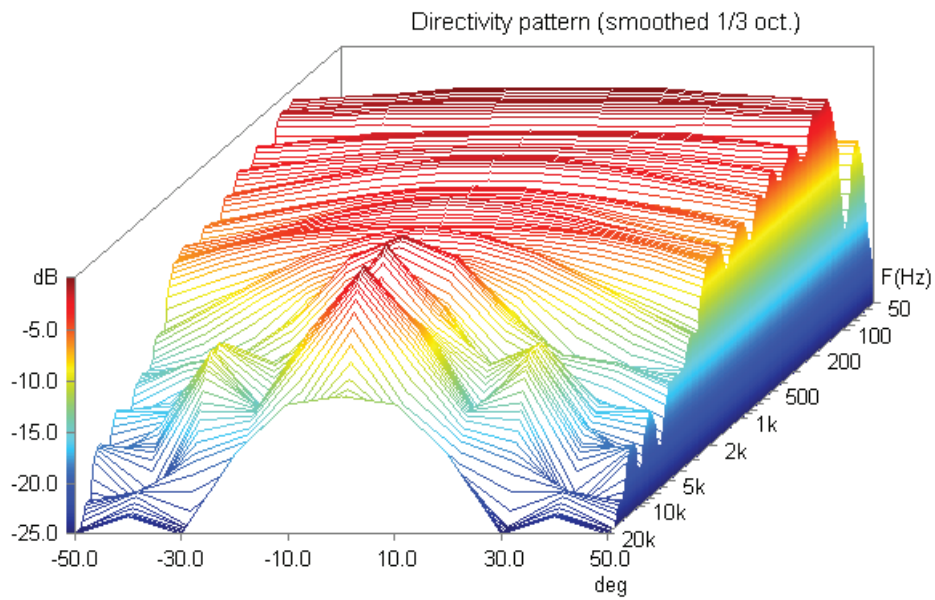
Brutal Audio 6FR - Impedance & Phase Response



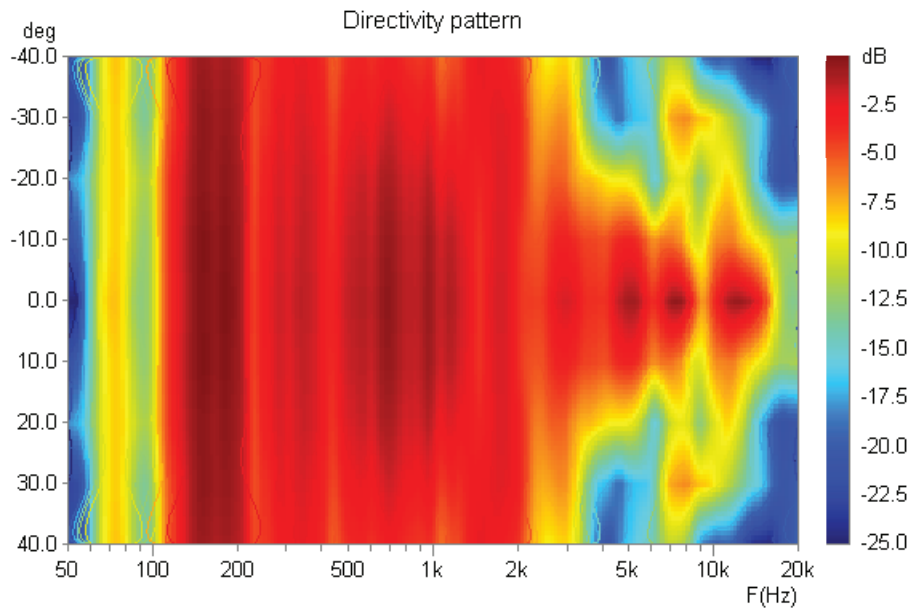
6FR - IMPEDANCE



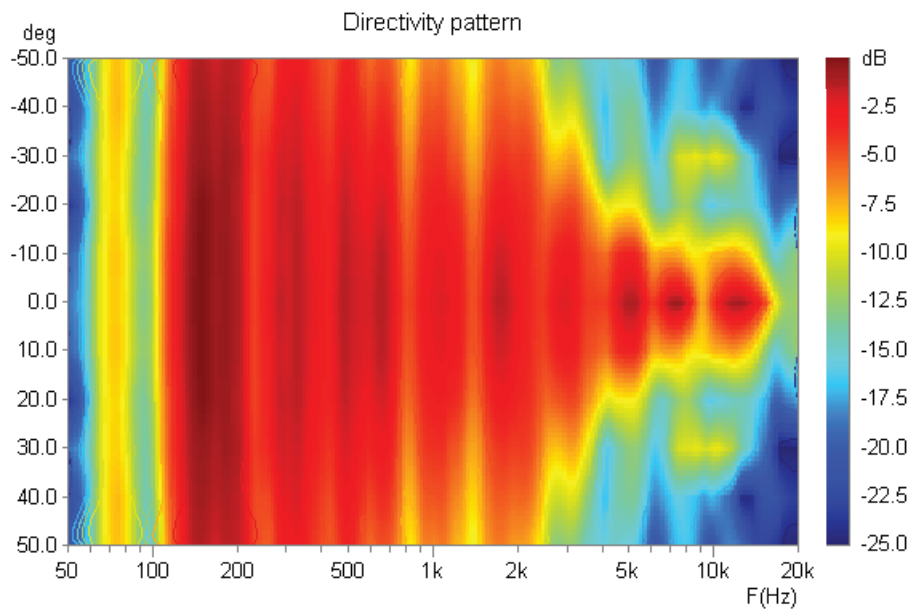
6FR - HORIZONTAL WATERFALL



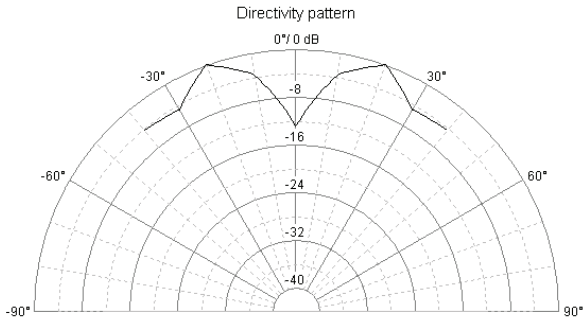
6FR - VERTICAL WATERFALL



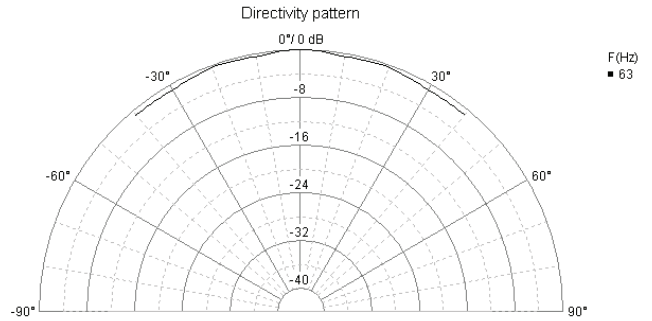
6FR - HORIZONTAL



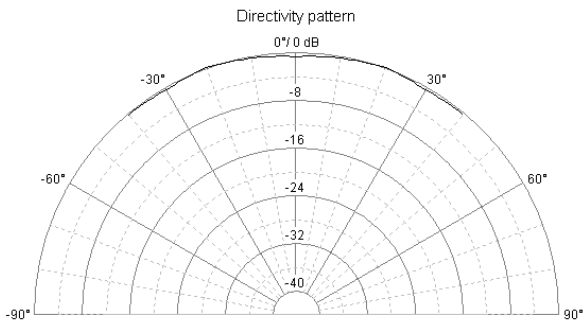
6FR - VERTICAL



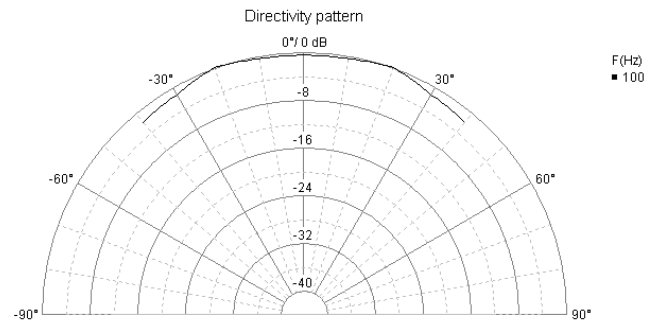
50Hz



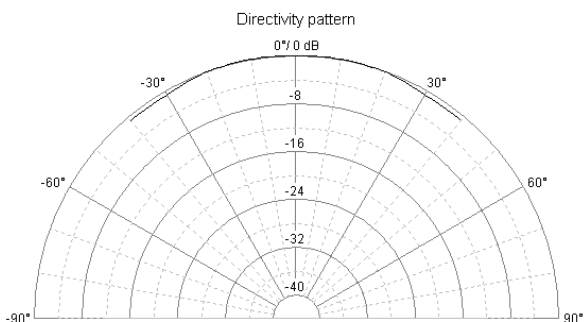
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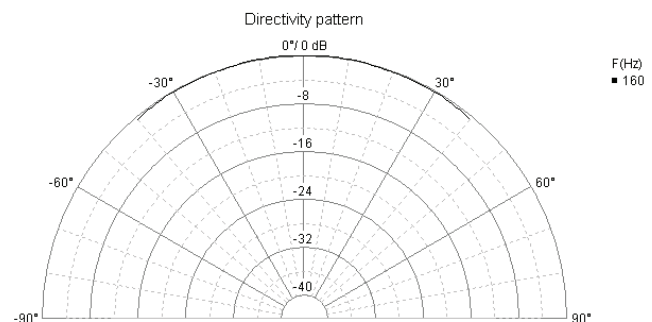
80Hz



100Hz

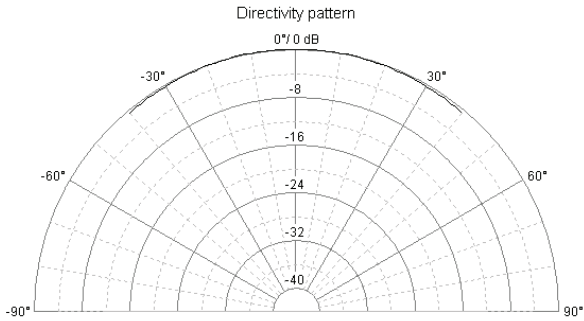


125Hz

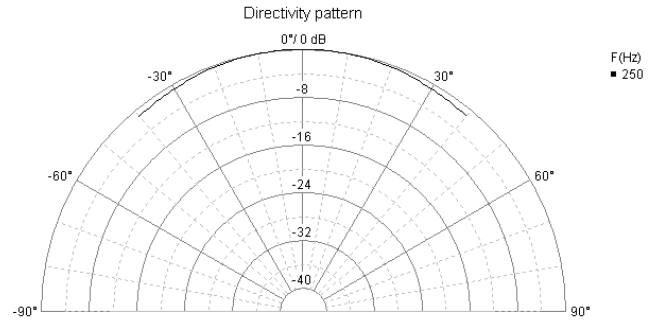


160Hz

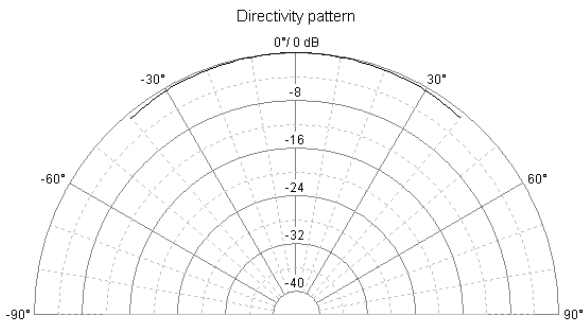
POLAR PLOTS - HORIZONTAL



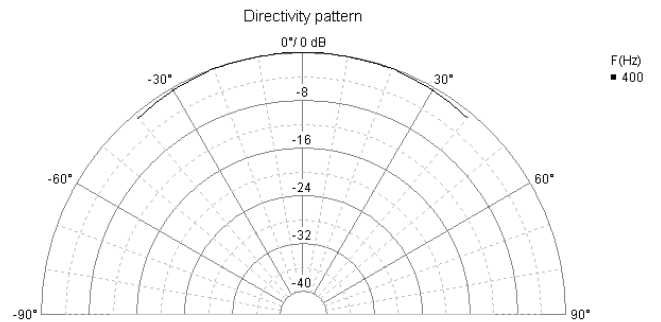
200Hz



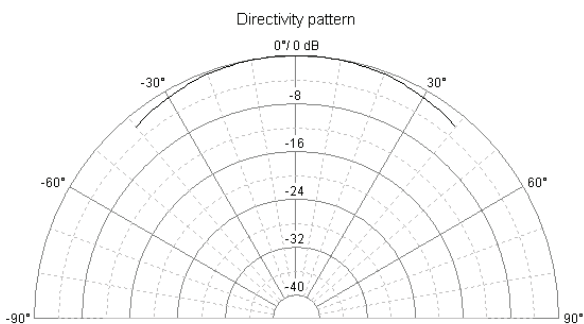
250Hz



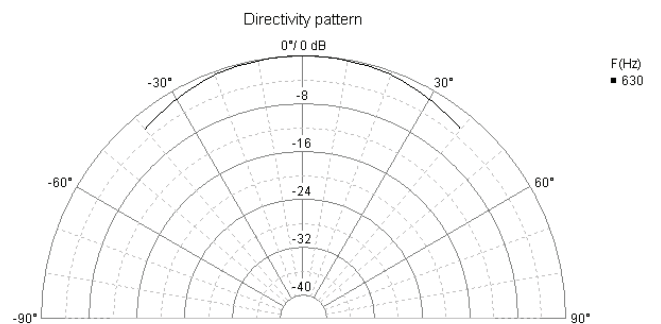
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400Hz

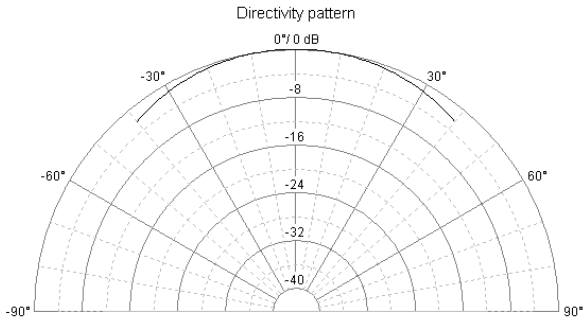


500Hz

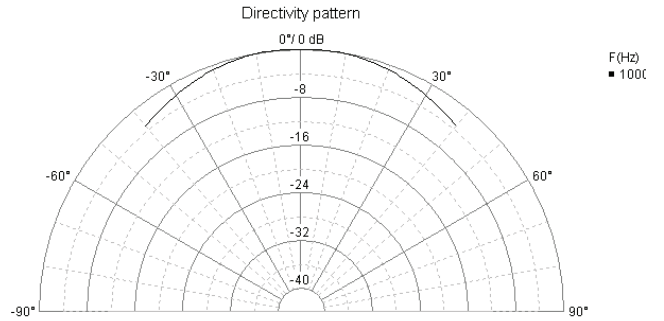


630Hz

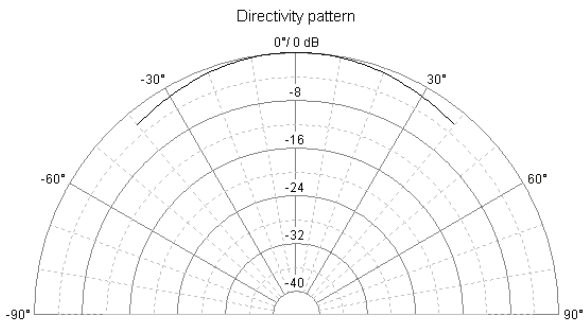
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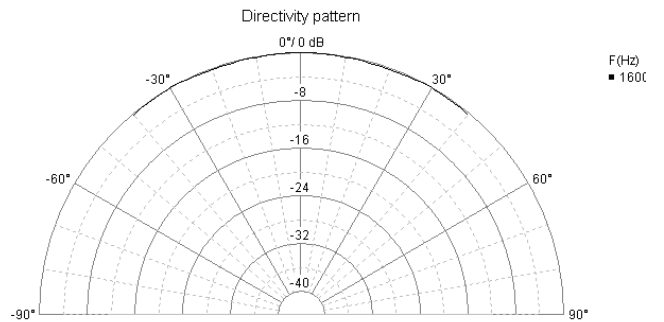
800Hz



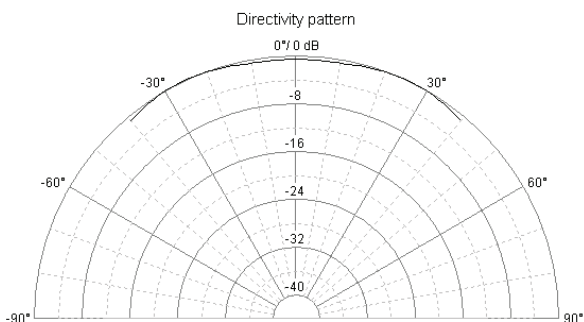
1000Hz



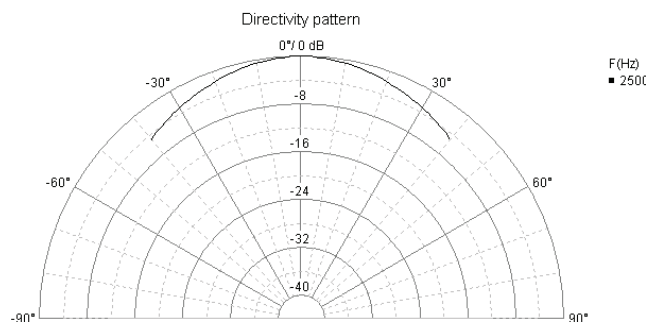
1250Hz



1600Hz

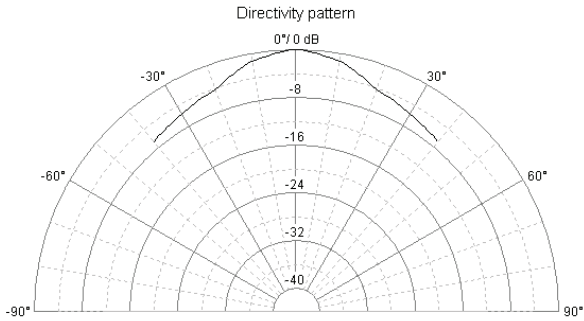


2000Hz

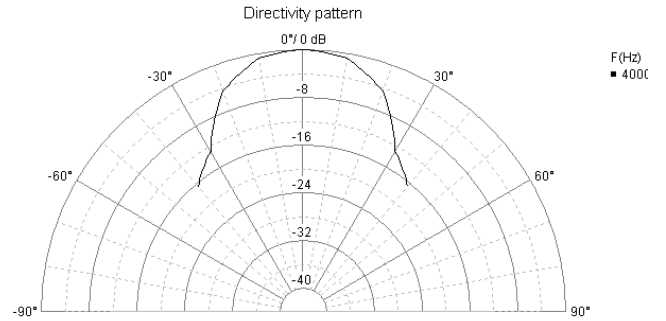


2500Hz

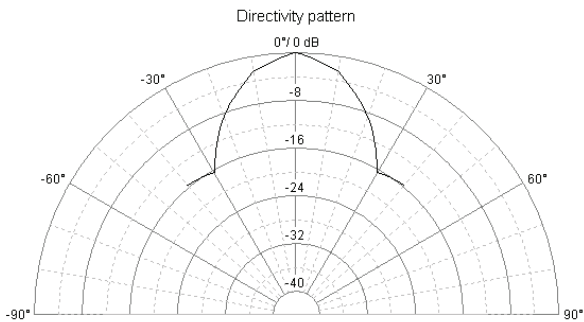
POLAR PLOTS - HORIZONTAL



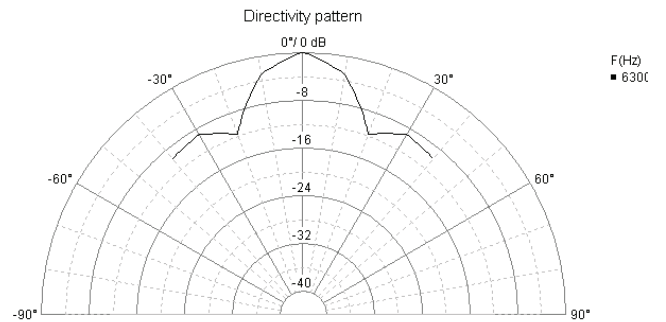
3150Hz



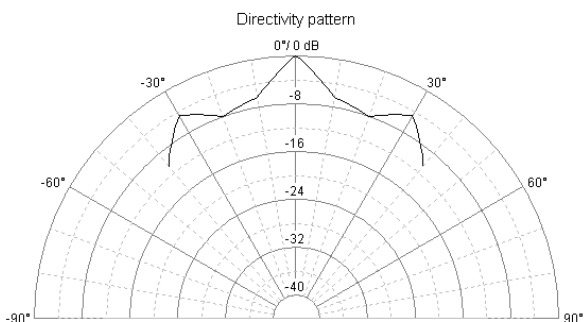
4000Hz



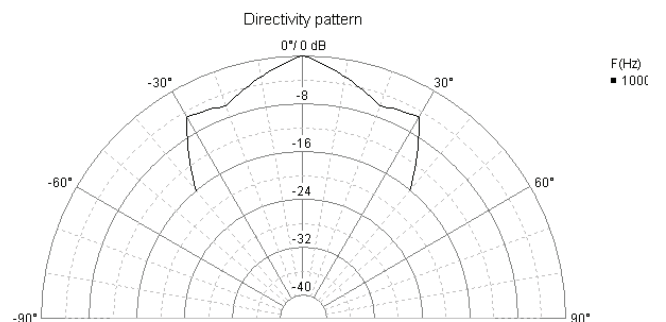
5000Hz



6300Hz

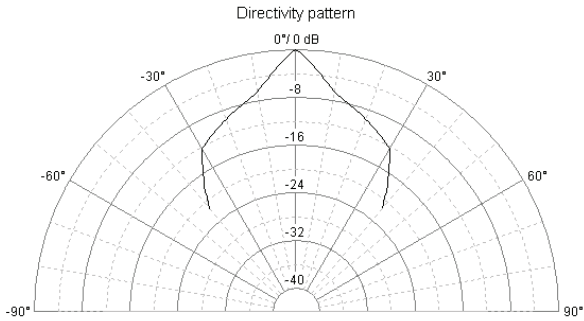


8000Hz



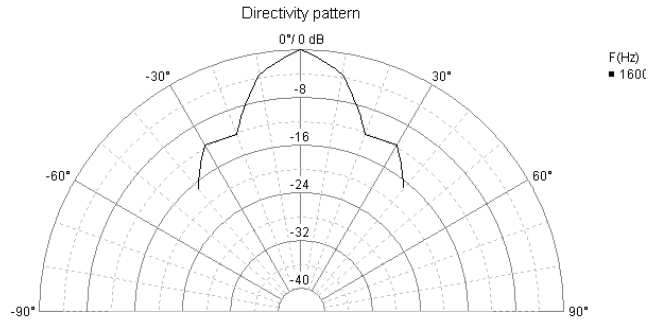
10000Hz

POLAR PLOTS - HORIZONTAL



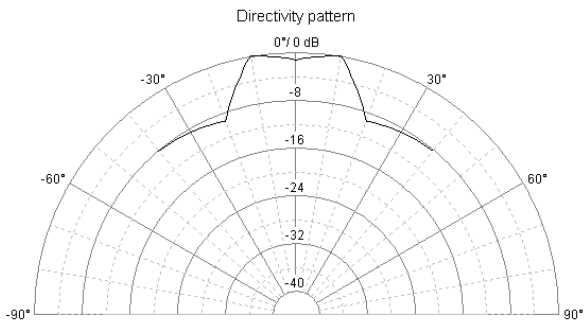
12500Hz

F (Hz)
■ 12500



16000Hz

F (Hz)
■ 16000

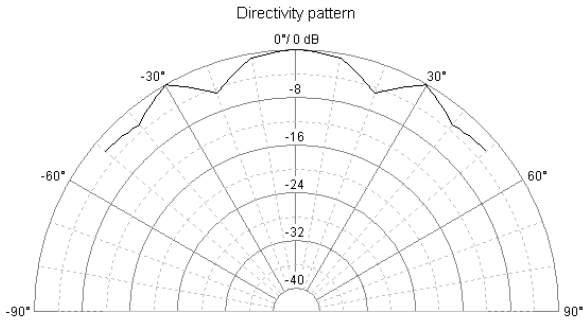


20000Hz

F (Hz)
■ 20000

POLAR PLOTS - HORIZONTAL

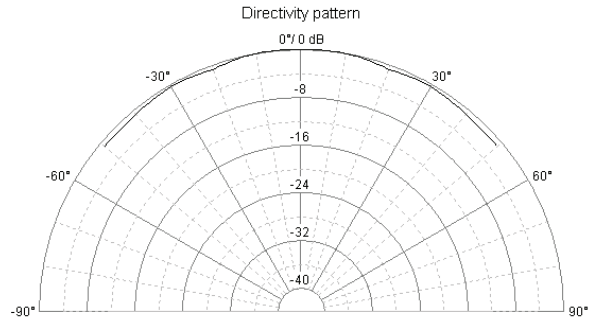
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50Hz

F (Hz)

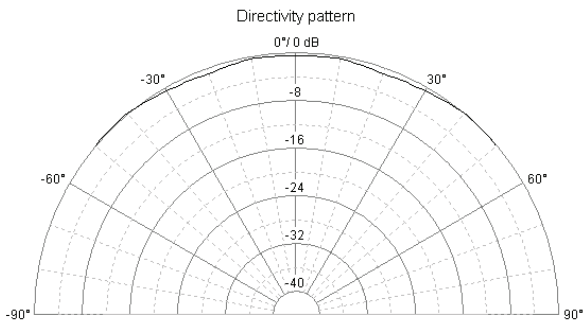
■ 50



63Hz

F (Hz)

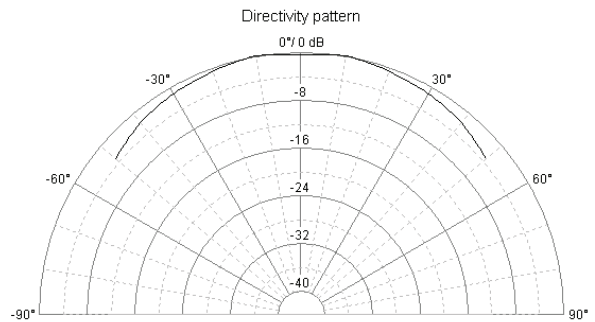
■ 63



80Hz

F (Hz)

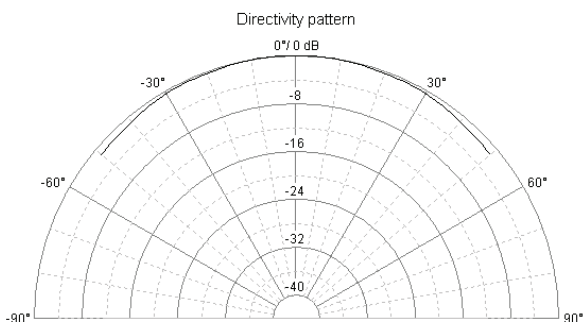
■ 80



100Hz

F (Hz)

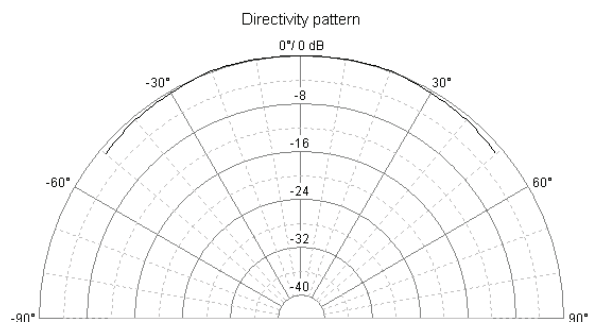
■ 100



125Hz

F (Hz)

■ 125

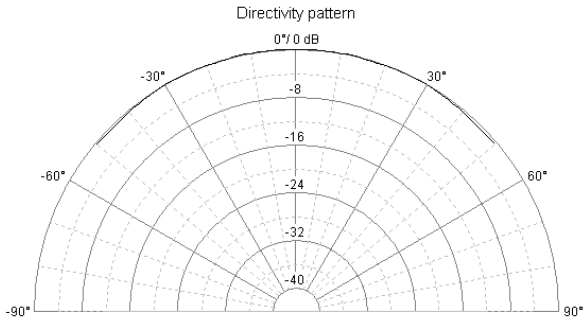


160Hz

F (Hz)

■ 160

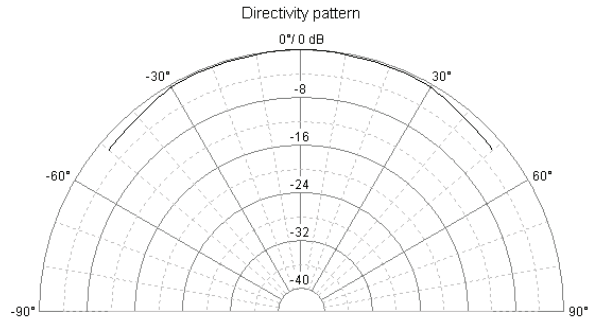
POLAR PLOTS - VERTICAL



200Hz

F (Hz)

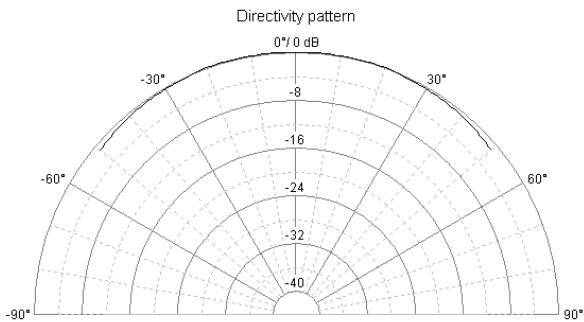
■ 200



250Hz

F (Hz)

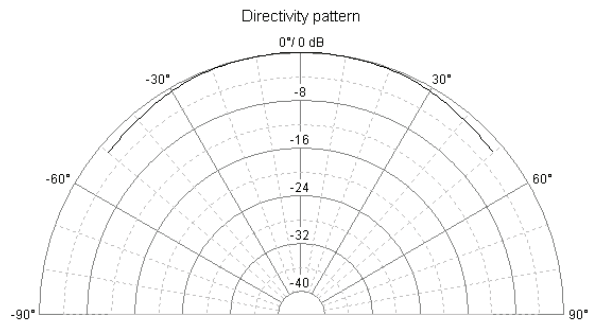
■ 250



315Hz

F (Hz)

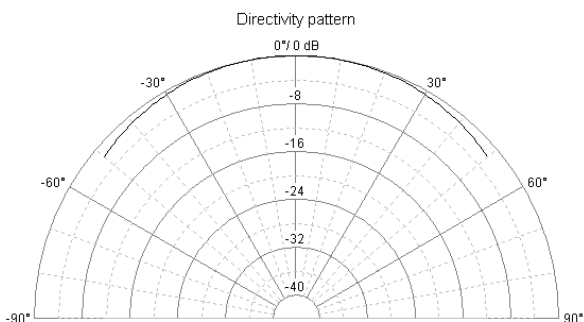
■ 315



400Hz

F (Hz)

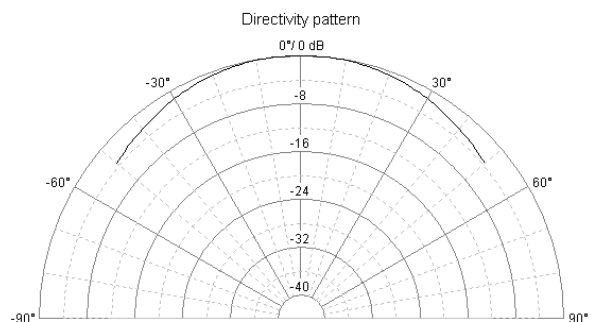
■ 400



500Hz

F (Hz)

■ 500

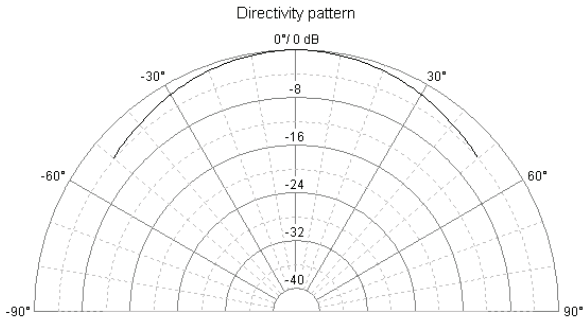


630Hz

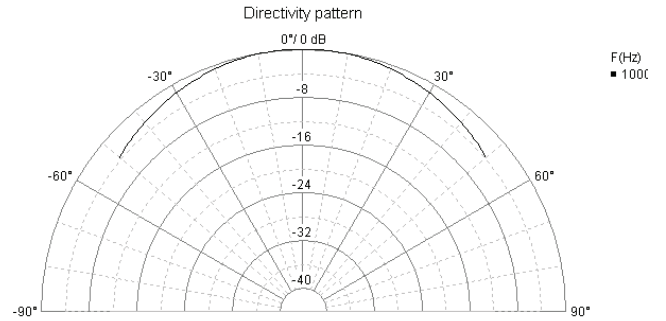
F (Hz)

■ 630

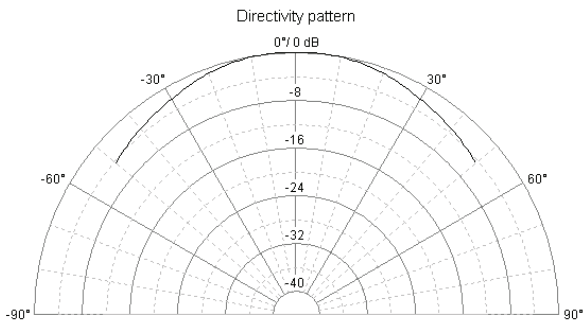
POLAR PLOTS - VERTICAL



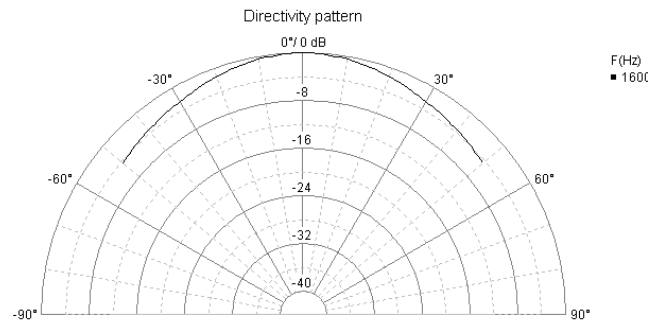
800Hz



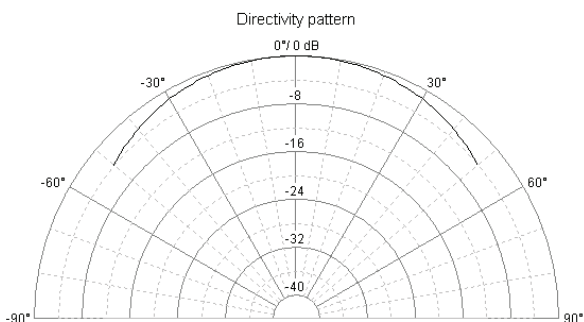
1000Hz



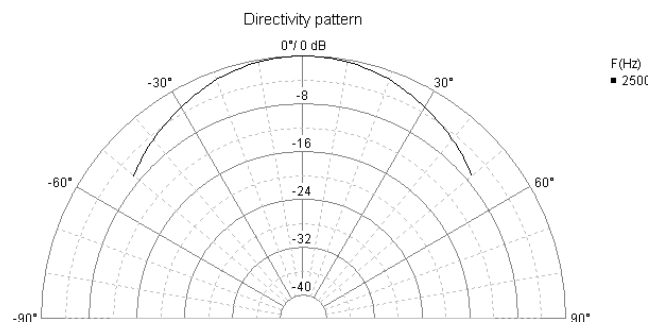
1250Hz



1600Hz

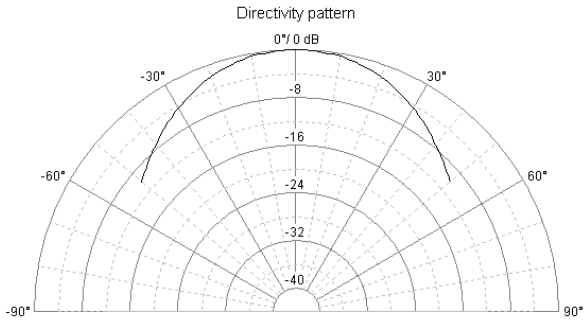


2000Hz

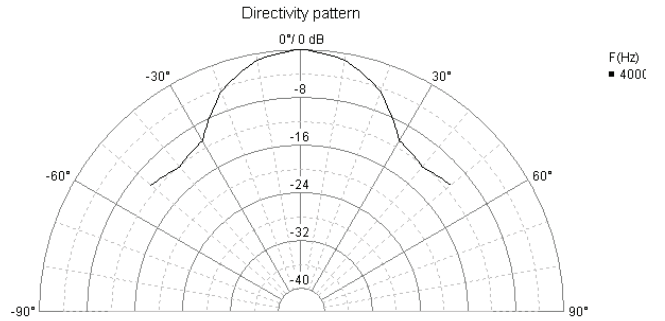


2500Hz

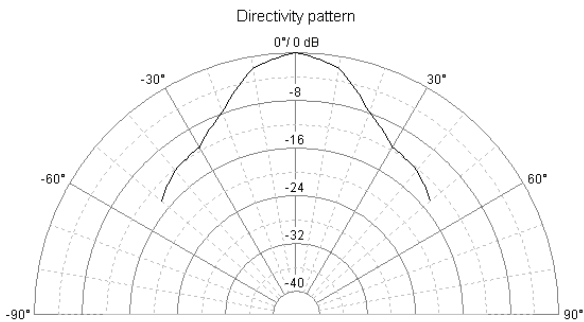
POLAR PLOTS - VERTICAL



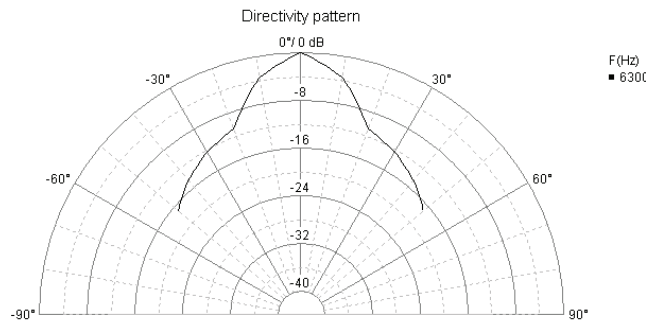
3150Hz



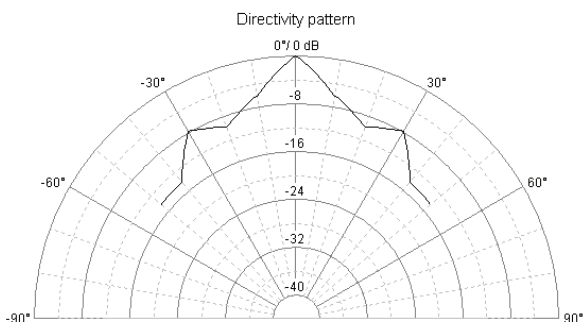
4000Hz



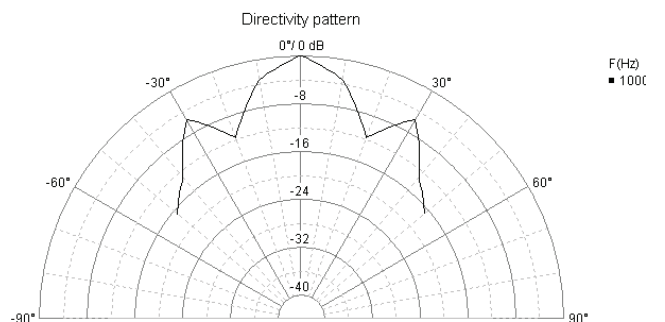
5000Hz



6300Hz

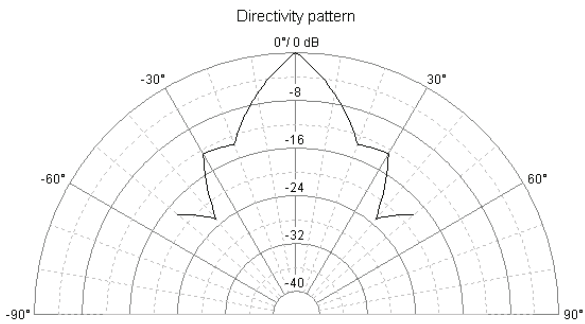


8000Hz



10000Hz

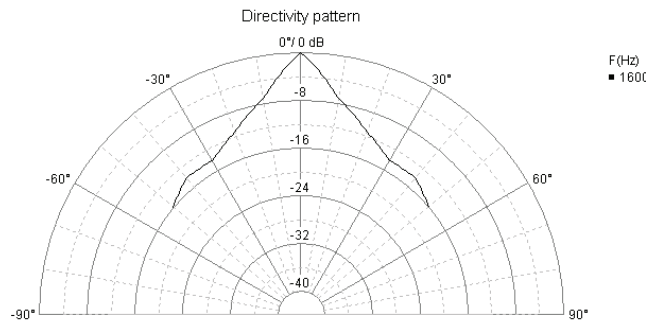
POLAR PLOTS - VERTICAL



12500Hz

F (Hz)

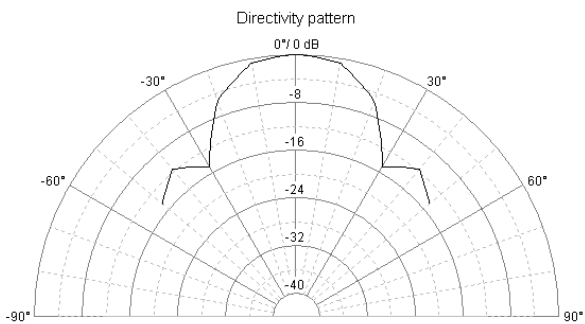
■ 12500



16000Hz

F (Hz)

■ 16000



20000Hz

F (Hz)

■ 20000

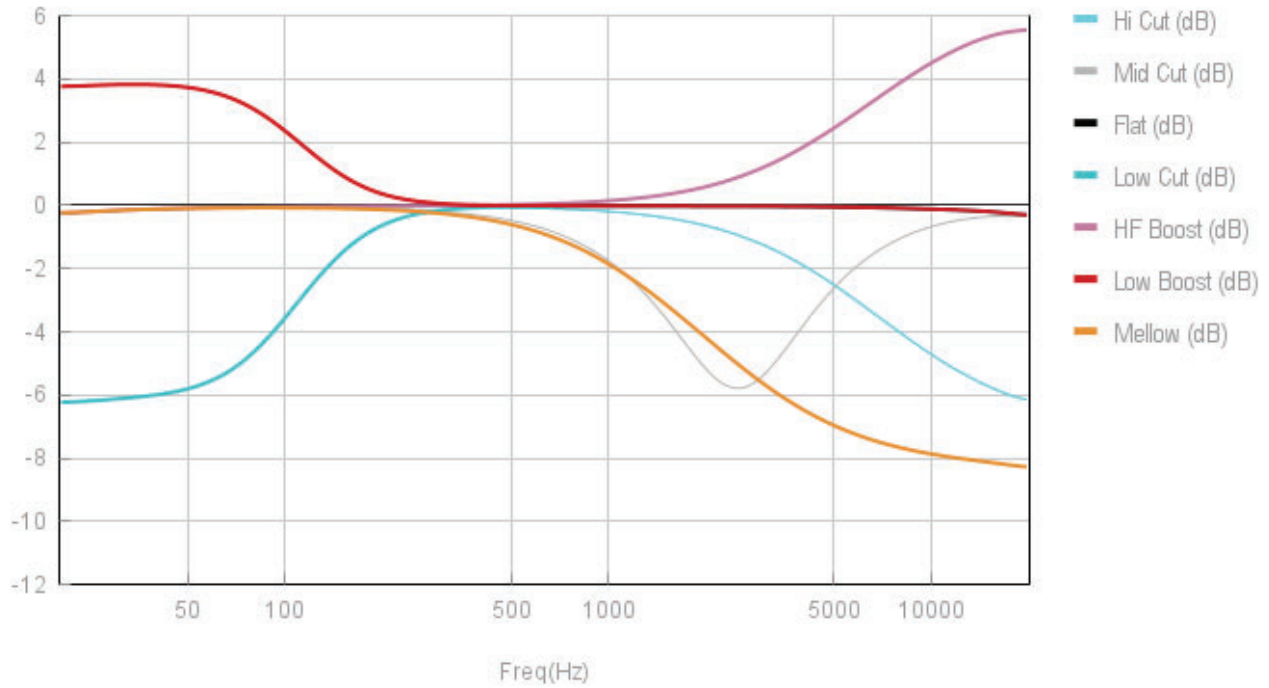
POLAR PLOTS - VERTICAL

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Page - 28



Brutal Audio 6FR - Tone Curves



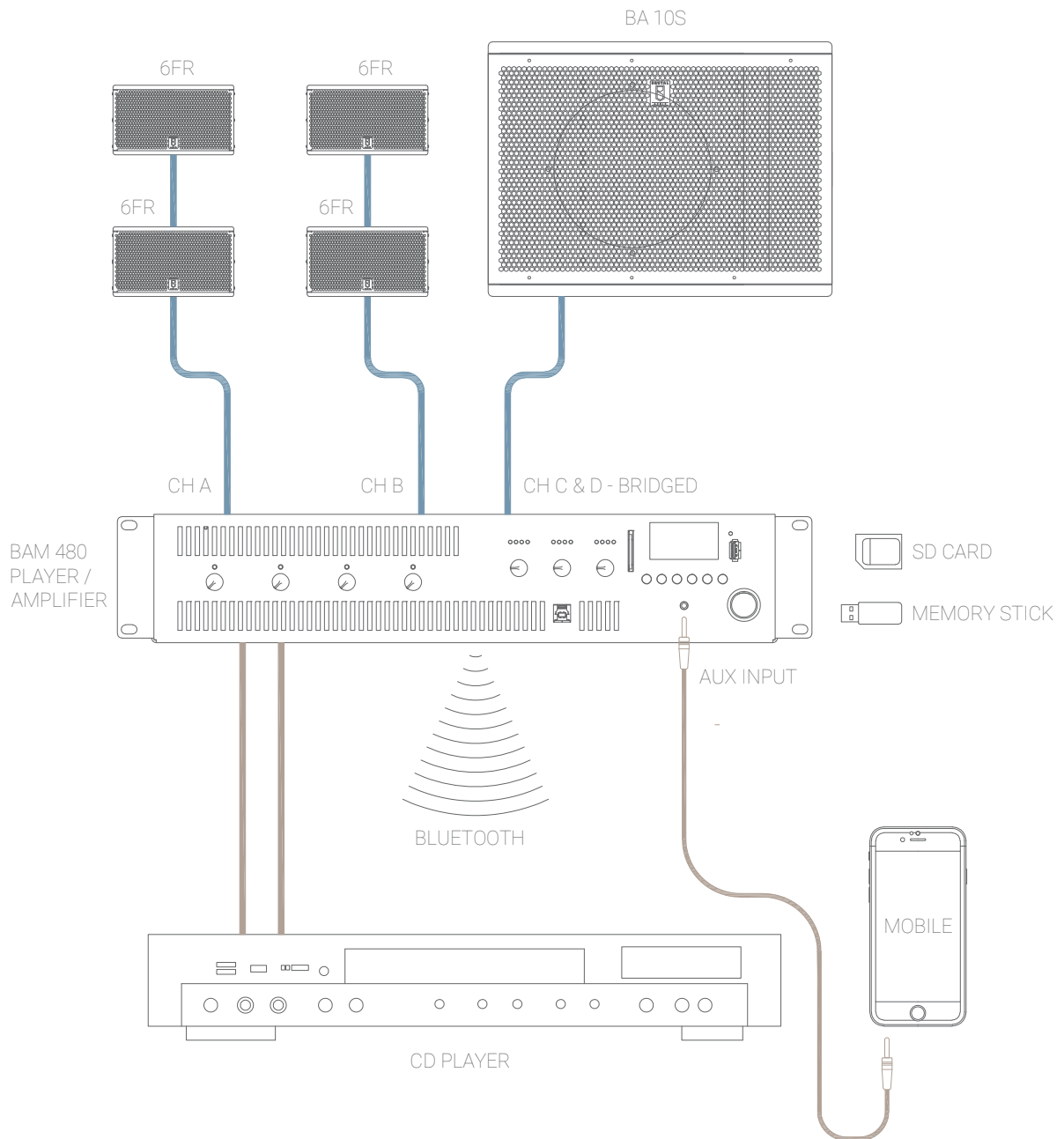
TONE CURVES

1. Flat - Black - All frequencies 0dB
2. Hi Cut - Blue - Hi shelf 8000 Hz -6dB
3. Mid Cut - Grey - Bell 2500 Hz -6dB
4. Low Cut - Aqua - Low Shelf 111Hz - 6dB
5. HF Boost - Violet - Hi Shelf 8000 +6dB
6. Low Boost - Red - Low Shelf 111 +4dB
7. Mellow - Orange - Hi Shelf 3000 Hz -8dB



FR SERIES CONFIGURATION 1 - E

SUITABLE FOR PRIVATE LISTENING,
SMALL RESTAURANTS, CAFES, RETAIL STORES ETC

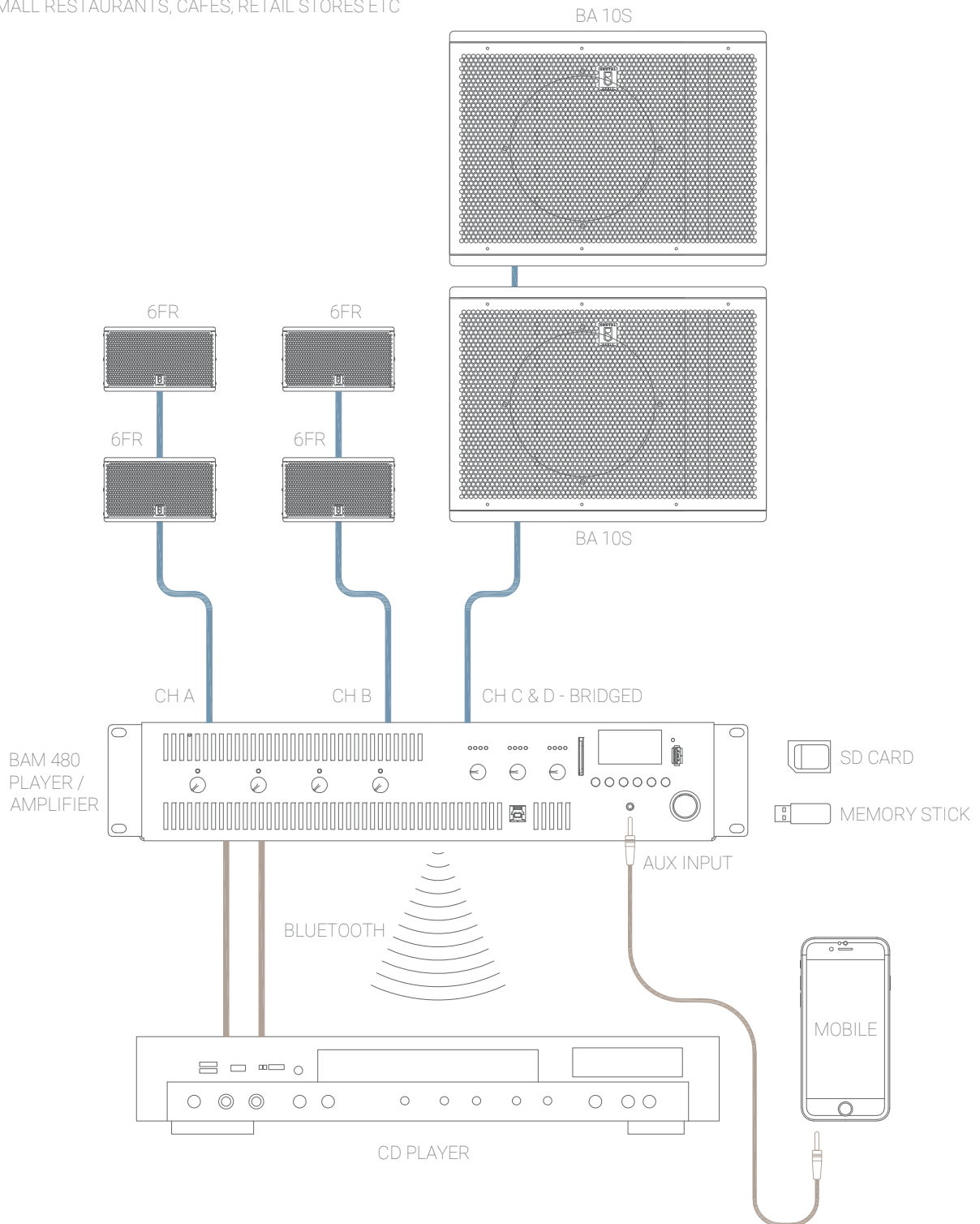


Note: This is a schematic representation, not to scale.



FR SERIES CONFIGURATION 1 - F

SUITABLE FOR HOMES,
SMALL RESTAURANTS, CAFES, RETAIL STORES ETC

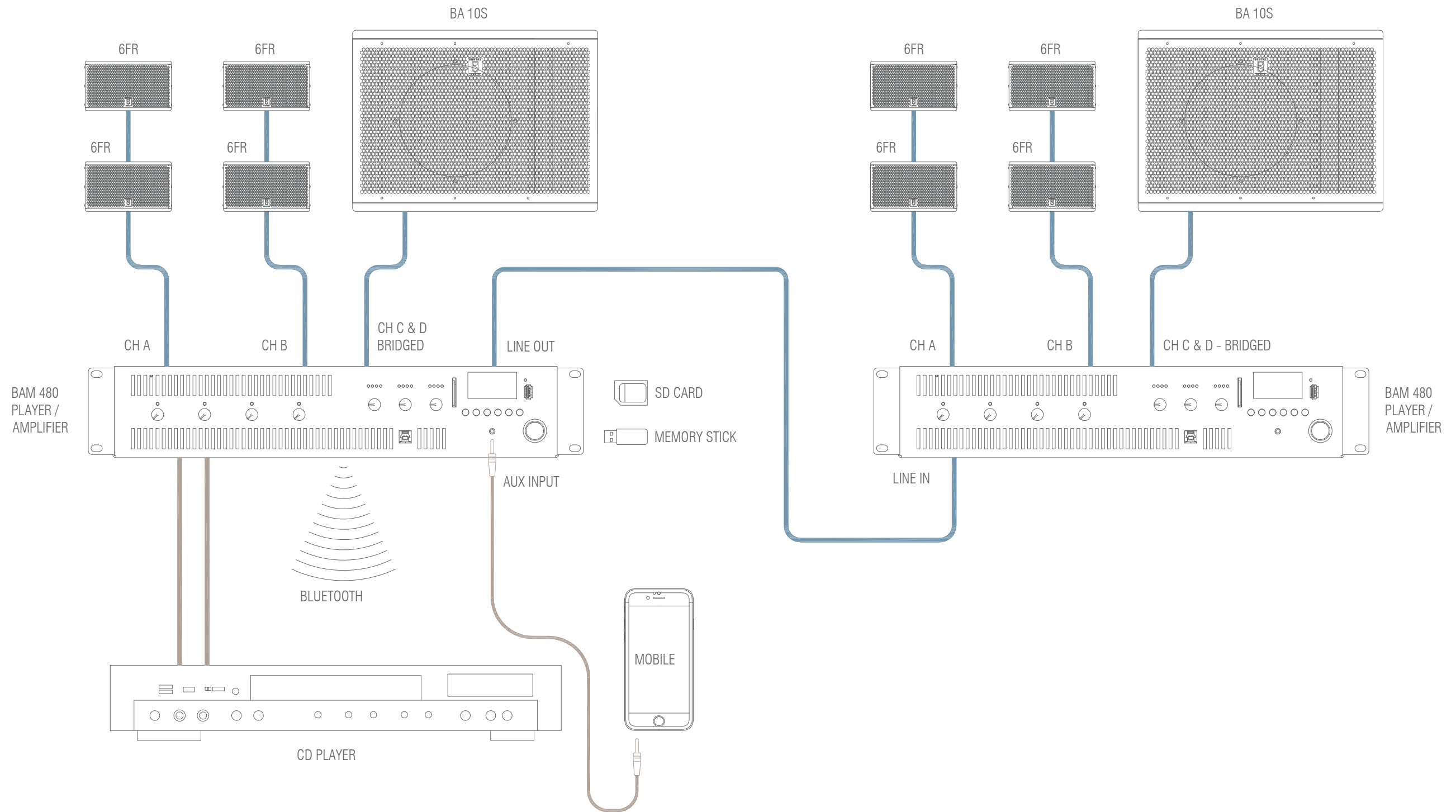


Note: This is a schematic representation, not to scale.



FR SERIES CONFIGURATION 1 - G

SUITABLE FOR HOMES, LARGER RESTAURANTS, CAFES, RETAIL STORES ETC

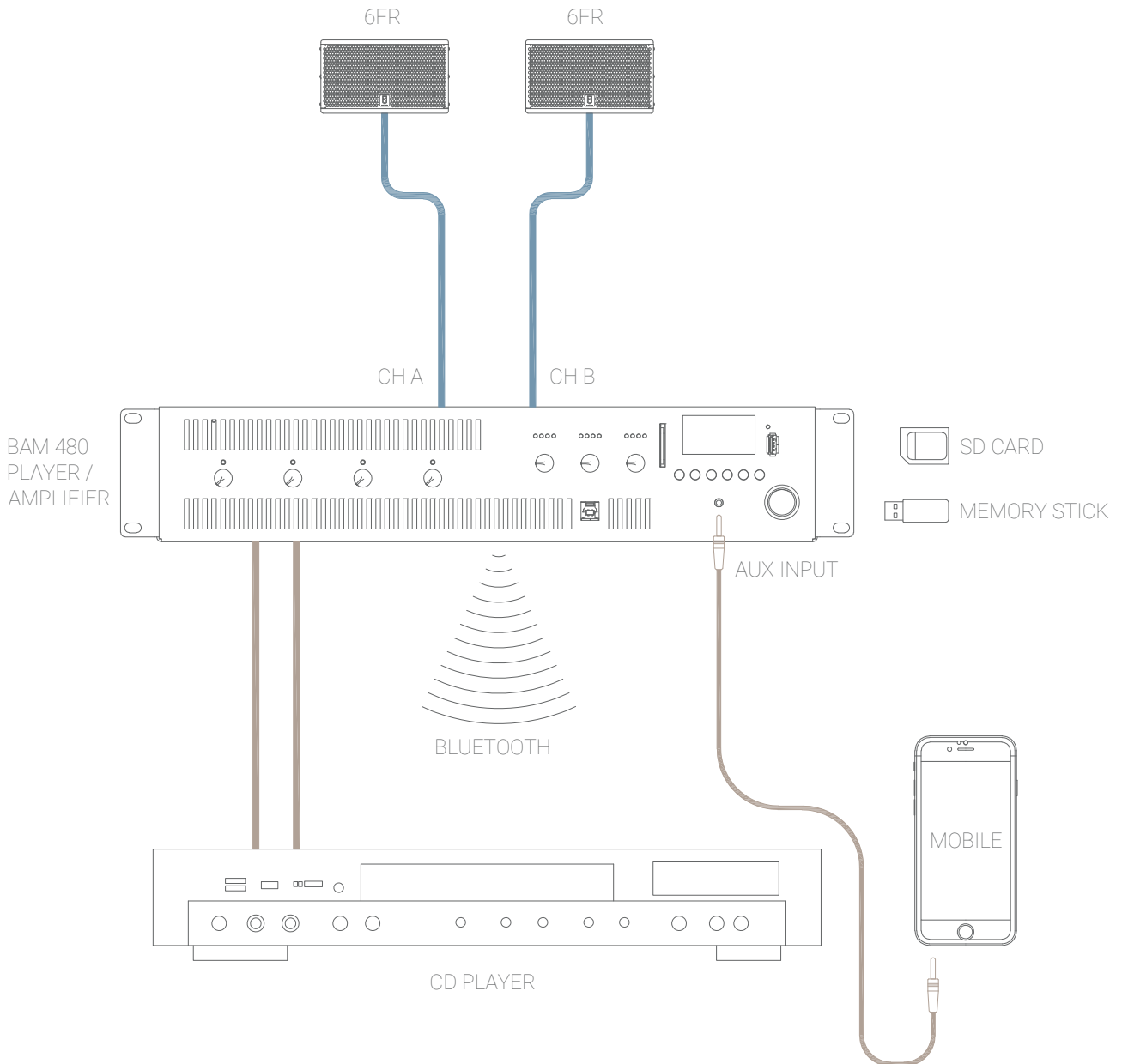


Note: This is a schematic representation, not to scale.

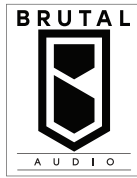


FR SERIES CONFIGURATION 1-A

SUITABLE FOR PRIVATE LISTENING,
SMALL RESTAURANTS, CAFES, RETAIL STORES ETC

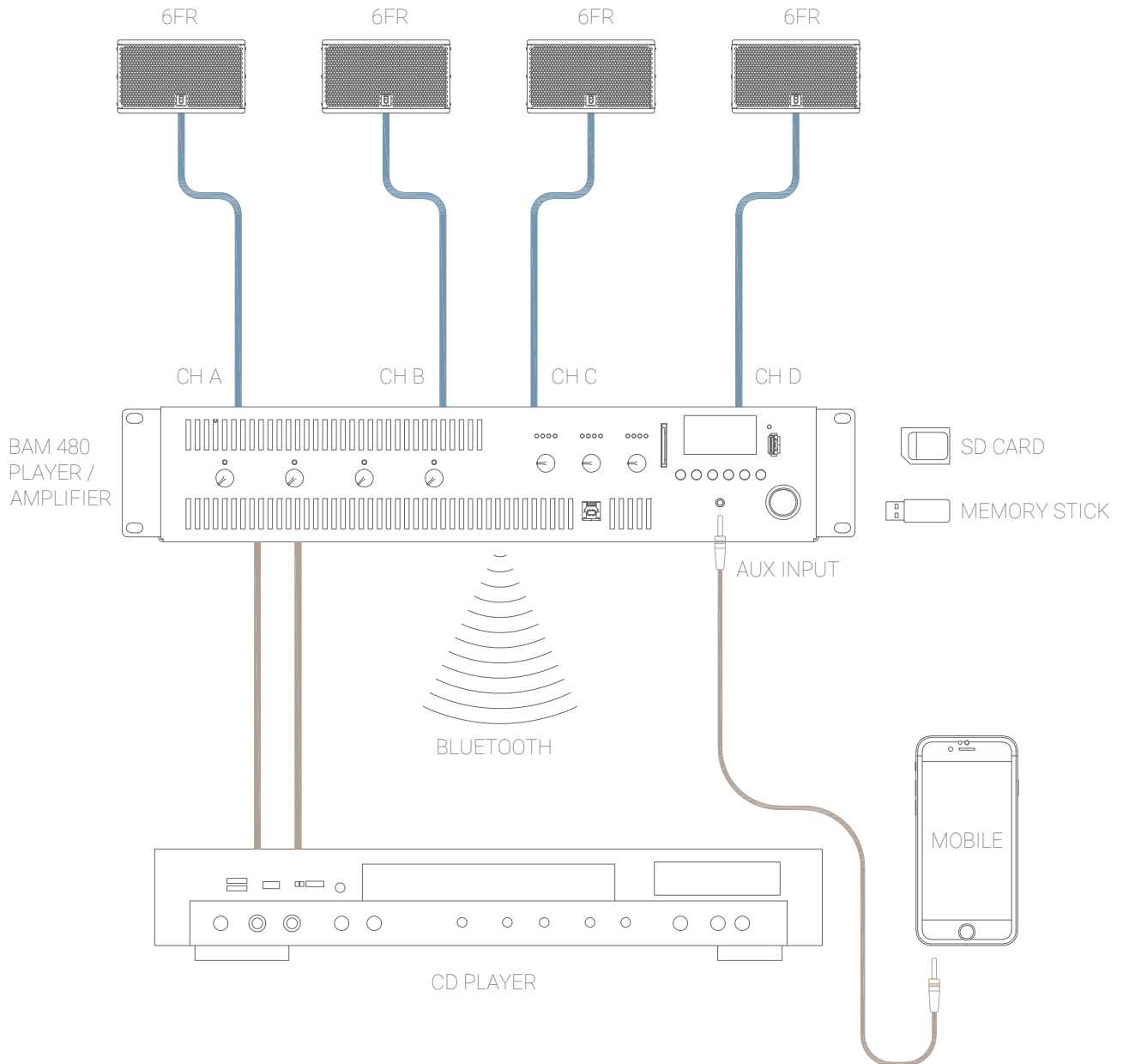


Note: This is a schematic representation, not to scale.



FR SERIES CONFIGURATION 1 - C

SUITABLE FOR PRIVATE LISTENING,
SMALL RESTAURANTS, CAFES, RETAIL STORES ETC

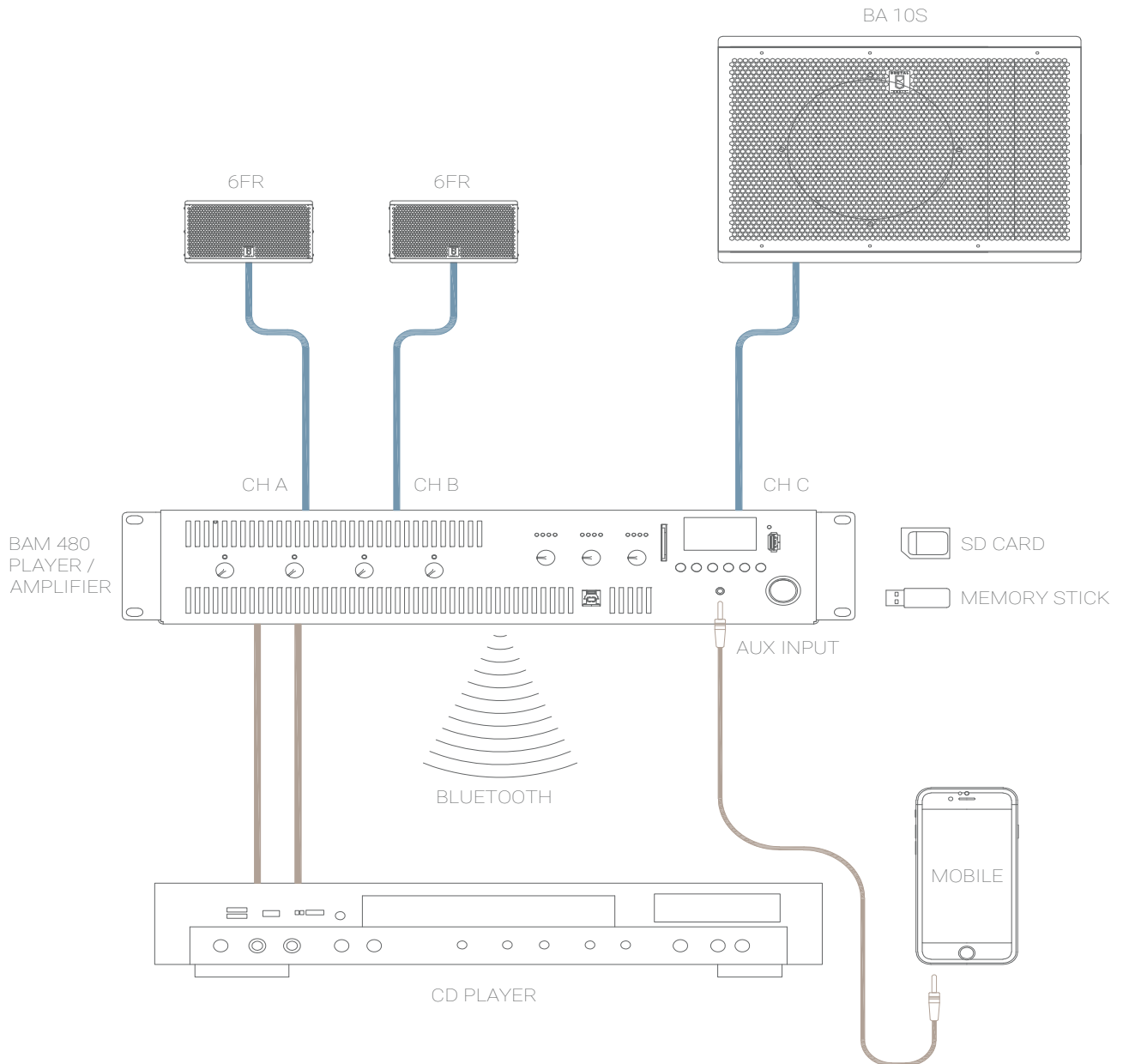


Note: This is a schematic representation, not to scale.



FR SERIES CONFIGURATION 1-B

SUITABLE FOR PRIVATE LISTENING,
SMALL RESTAURANTS, CAFES, RETAIL STORES ETC

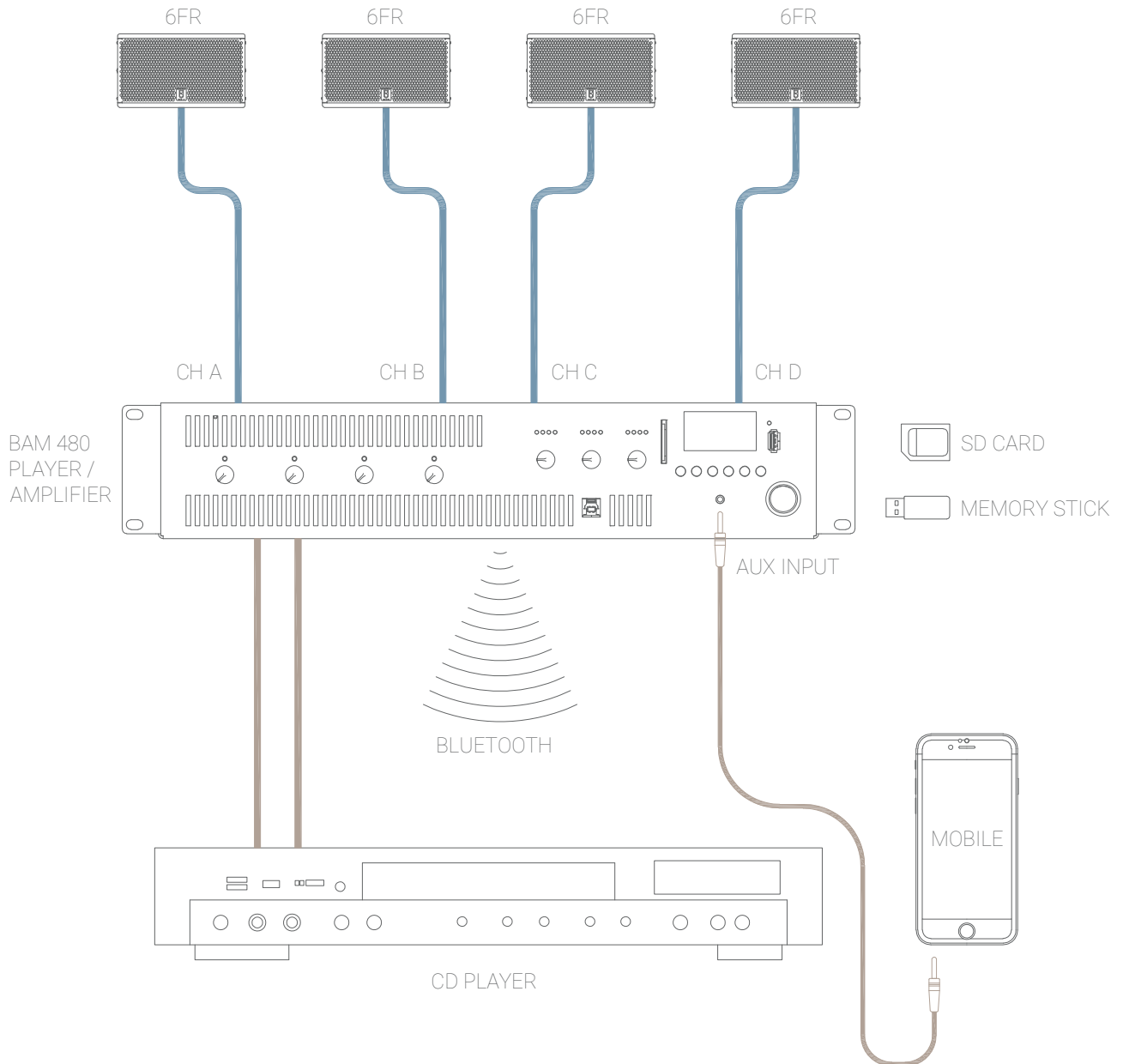


Note: This is a schematic representation, not to scale.



FR SERIES CONFIGURATION 1 - C

SUITABLE FOR PRIVATE LISTENING,
SMALL RESTAURANTS, CAFES, RETAIL STORES ETC

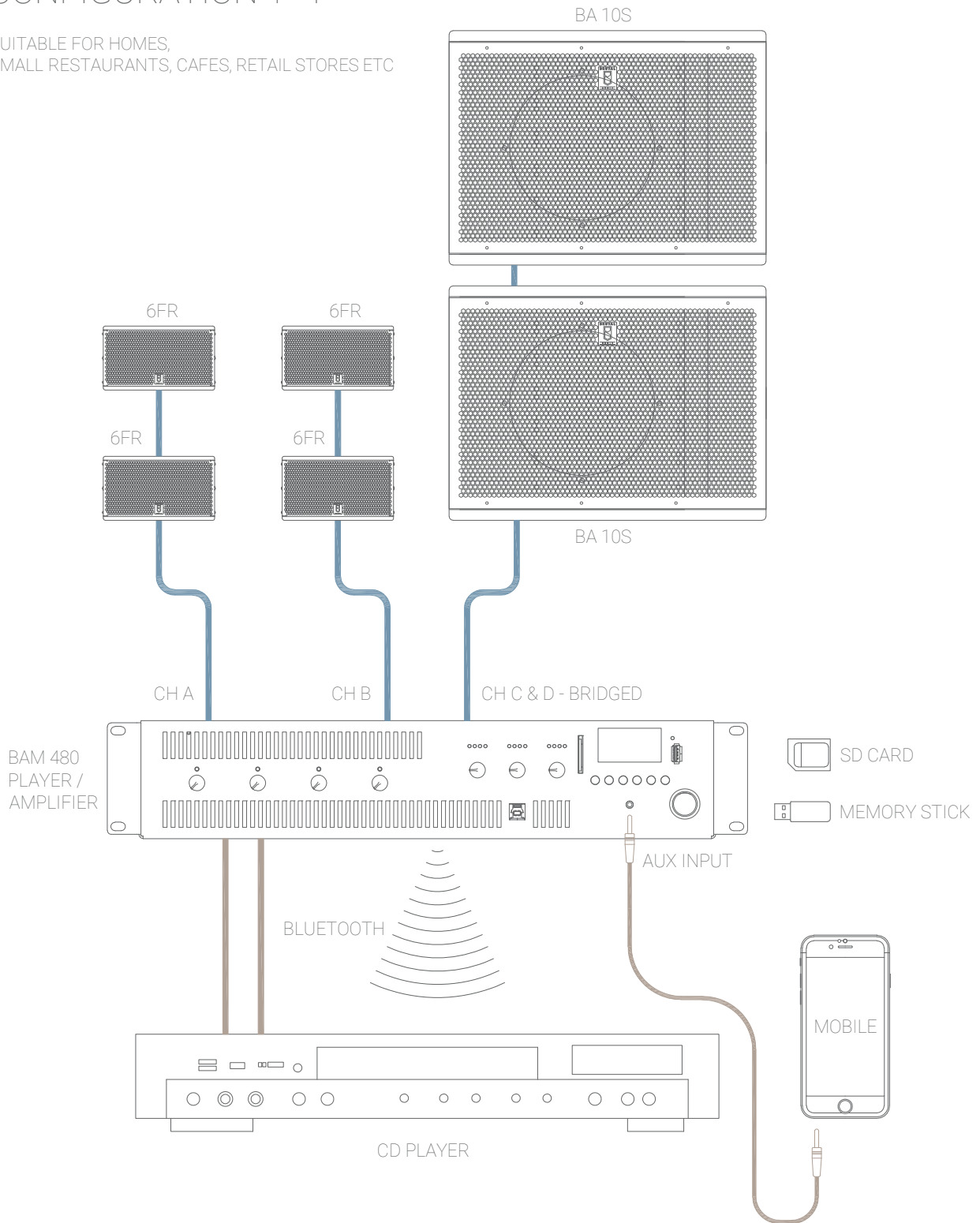


Note: This is a schematic representation, not to scale.



FR SERIES CONFIGURATION 1 - F

SUITABLE FOR HOMES,
SMALL RESTAURANTS, CAFES, RETAIL STORES ETC

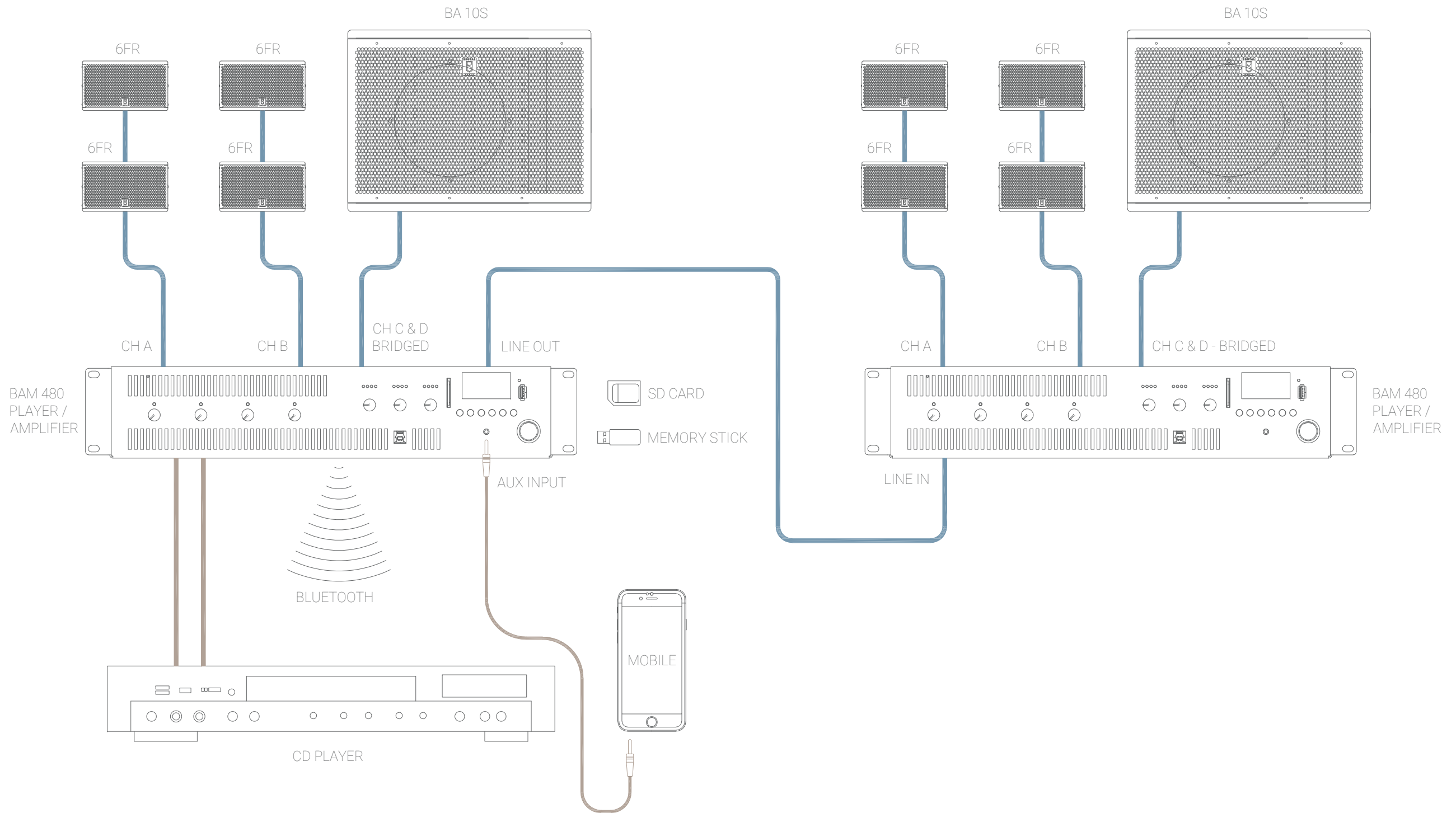


Note: This is a schematic representation, not to scale.



FR SERIES CONFIGURATION 1 - G

SUITABLE FOR HOMES, LARGER RESTAURANTS, CAFES, RETAIL STORES ETC



Note: This is a schematic representation, not to scale.



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