





CELLO SERIES RR 212hl-40 MK1 / RR 212hl-60 MK1 / RR 212hl-90 MK1

Compact Design, Massive Impact: Loudspeakers that Deliver

The Cello RR series is a horn-loaded loudspeaker system that is relatively light and compact, offering excellent clarity and directivity control. Cello RR 212hl is a passive bi-amp driven, 3-way horn-loaded, point source loudspeaker. The LF section features two customized 12" drivers loaded using a V-chamber aided reflex-tuning for added sensitivity and low-frequency directivity. The horn supporting the 1" HF in the HMF section acts as a phase plug, increasing the sensitivity and directivity of the mid and high sections. The 8" driver seamlessly crosses over into the 1" HF using a passive network, making each driver highly efficient and distortion-free by reducing their stress. The HMF section being coaxially horn-loaded gives a great solution for both installed and touring sound applications. Its cleverly designed horn acts as an acoustical amplifier, enhancing its sensitivity and directivity. This increases the mid-band SPL, propagating the highest frequencies without compromising power. This design helps the cabinet to perform brilliantly in reverberant environments. The CSC RR 212hl has three variants having different dispersions (VxH).

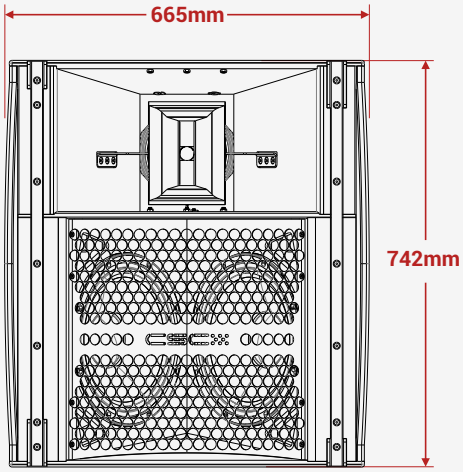
RR 212hl-40° MK1	40°x40°
RR 212hl-60° MK1	40°x60°
RR 212hl-90° MK1	40°x90°

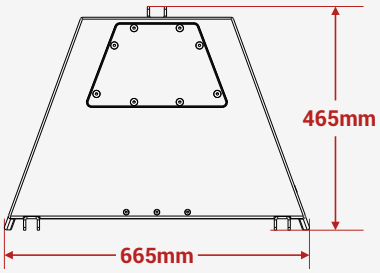
The throw comes from an array of low drivers. A1x3 array will focus sound better than a 1x2 due to its directivity advance and front field extension. Arrays can also be easily mixed. A1x3 format using RR 212hl-40 MK1 for long-throw can be used with two single RR 212hl-90 MK1 cabinets for near-field. For large stages, a hang of three deep RR 212hl-90 MK1 can be employed as a centre fill. RR 212 hl can be used as a single unit or in arrays of up to three cabinets (3 wide or 3 deep) with a 3 deep centre fill. The RR 212hl represents a unique design concept that provides an unusually high degree of rigging flexibility and three available coverage patterns. This premium product provides improved dynamic performance, including reduced distortion and power compression. The three-way cabinet measures 10 dB less distortion between 1 and 3 k over conventional cabinets. The passive crossover in the HMF section is tuned to ensure a flat frequency response with a clear vocal section. This design has enough headroom for minimum distortion. The use of a CSC Maestro MS 26 controller is a recommended choice with the RR 212hl. Customized presets for all combinations are available with the system. The Contrabass CR 218s, RR 218s, RRH 218s and RRi 21s sub-woofers seamlessly couple with the Cello RR 212hl, RRI 21s, RR 212s, RR 215s, Harmonica s, Harmonica 3s

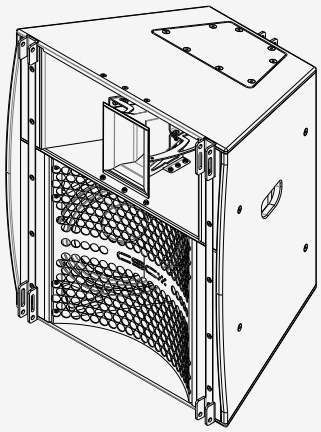
CREATIVE SOUND CONCEPTS

MODEL NO	RR 212hl-40 MK1
Type	Bi-amped, semi horn-loaded, three-way, Long throw, Mid-high
Frequency Response	75 Hz - 20 kHz
Drivers	LF: 2x12" with a 2.5" VC, MF: 8" with a 2" VC and HF:1" with a CD 1.4" VC
Sensitivity (1 W / 1 m)	103 dB
Maximum SPL Nominal	130 dB
Maximum SPL Peak	136 dB
Nominal Impedance	LF ; 8 ohms, HMF :8 ohms
Dispersion (V x H)	40° x 40°
Crossover	LF/HMF bi-amped, MF/HF passive
Enclosure	Baltic birch ply
Finish	Non-toxic Textured black paint
Protective Grill	Perforated Powder-coated Steel
Connectors	2 x Neutrik NL8
Pin Connections	Input LF: ± 3, HF: ± 4 Link through LF ± 3, HF: ± 4
Standard Colours	Black
Fitting	Inbuilt flying system without flying frames
Horn	Non Rotatable
AES Power Handling	600/250/60 watts
Maximum/ Continuous/ Program Power	1200/500/120 watts
Peak Power	2400/1000/240 watts
Accessories	Speaker ground stacking separator, felted waterproof covers, flying frame
Dimensions For Product (in mm)	(W) 665 x (H) 742 x (D) 465
Dimensions Including Packing (in mm)	(W) 755 x (H) 810 x (D) 540
Net Weight (kgs)	41
Shipping Weight (kgs)	48

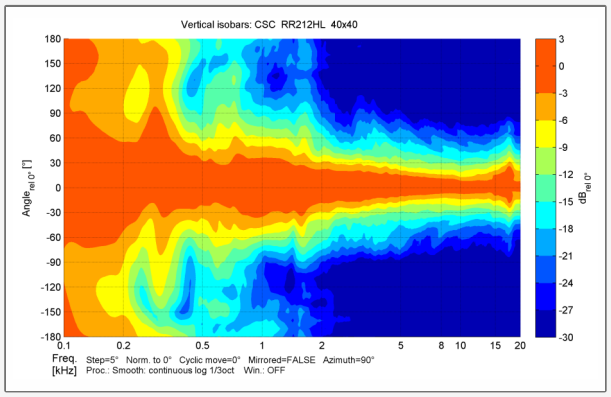
Mid highs measured on-axis in full space @ one watt/1-meter using band-limited pink noise in the en-devour to continuously improve the product with design refinements introduced into existing products. Any current CSC product may differ in some respect from its published description. However, this will always equal or exceed the original design specifications. Every CSC Product is built to the highest standards and tested to ensure that it meets the performance criteria specified.





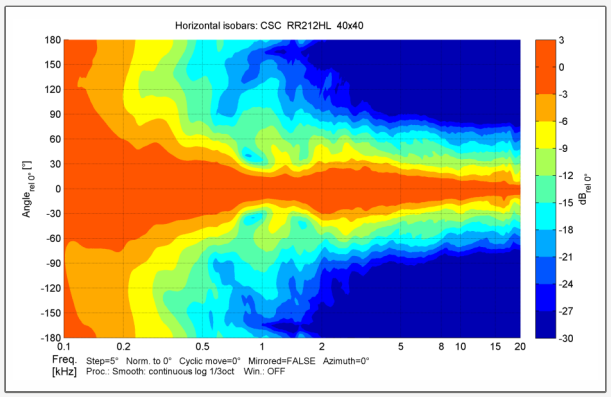


Vertical Polar Coverage (-6 dB)



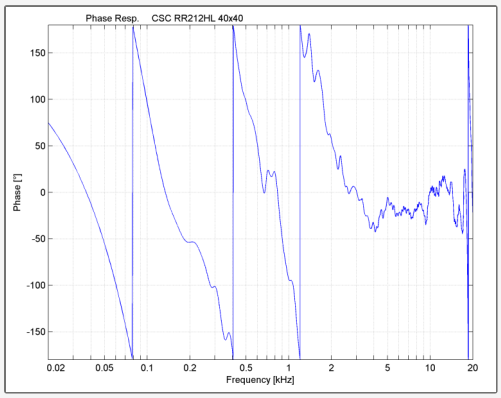
Designed for array configurations, the RR 212hl-40 MK1, RR 212hl-60 MK1 and RR 212hl-90 MK1 maintain a highly controlled vertical dispersion of 40°, enable tailored vertical coverage in flown or stacked deployments.

Horizontal Polar Coverage (-6 dB)



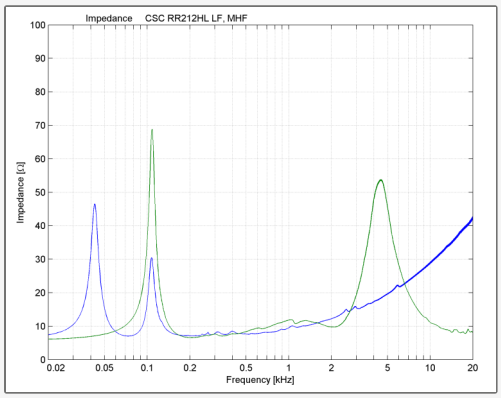
Designed for array configurations, the RR 212hl-40 MK1, RR 212hl-60 MK1 and RR 212hl-90 MK1 have three horizontal dispersion variations 40, 60 and 90 degrees.

Phase Response



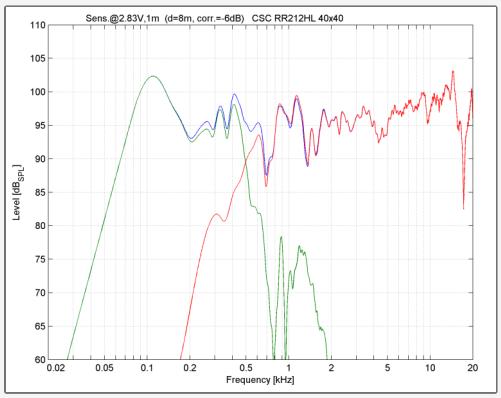
With a minus 50-degree phase angle between 2kHz and 20kHz it ensures accurate midrange propagation. This performance ensures intelligible vocals and instruments in complex acoustic spaces like stadiums or cathedrals.

Impedance Plot



Maintains dual 8-ohm impedance LF and HMF. These plots aid amplifier matching and system protection in high-power installations where speaker arrays present complex loads.

Frequency Response (Crossover Split)

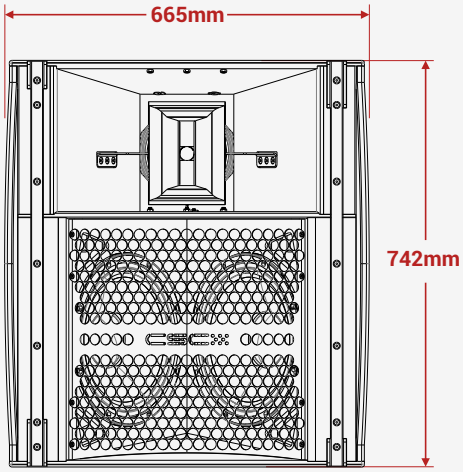


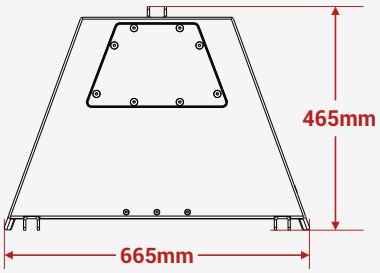
The 3-way system is crossed passive/active crossover topology achieves a smooth response from 70 Hz to 20 kHz.

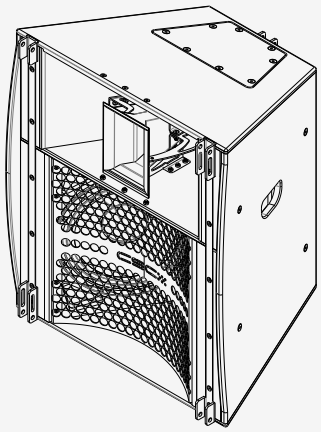
CREATIVE SOUND CONCEPTS

MODEL NO	RR 212hl-60 MK1
Type	Bi-amped, Horn loaded, Coaxial, Three way, Long throw, Mid-high
Frequency Response	75 Hz - 20 kHz
Drivers	LF: 2x12" with a 2.5" V C, MF: 8" with a 2" VC and HF:1" with a CD 1.4"
Sensitivity (1 W / 1 m)	103 dB
Maximum SPL Nominal	130 dB
Maximum SPL Peak	136 dB
Nominal Impedance	LF ; 8 ohms, HMF :8 ohms
Dispersion (V X H)	40° x 60°
Crossover	LF/HMF bi-amped, MF/HF passive
Enclosure	Baltic birch ply
Finish	Textured black paint
Protective Grill	Perforated Powder-coated Steel
Connectors	2 x Neutrik NL8
Pin Connections	Input LF: ± 3, HF: ± 4 Link through LF ± 3, HF: ± 4
Standard Colours	Black / White
Fitting	Inbuilt flying system without flying frames
Horn	Non Rotatable
Nominal/ AES Power	600/200/60 watts
Maximum/ Continuous/ Program Power	1200/400/120 watts
Peak Power	2400/800/240 watts
Accessories	Felted waterproof covers, flying frame
Dimensions For Product (in mm)	(W) 665 x (H) 742 x (D) 465
Dimensions Including Packing (in mm)	(W) 755 x (H) 810 x (D) 540
Net Weight (kgs)	41
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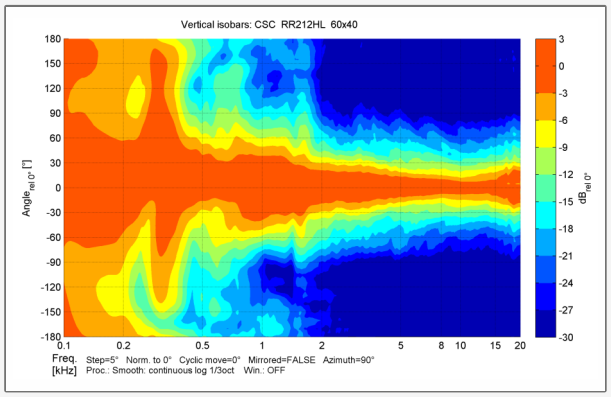
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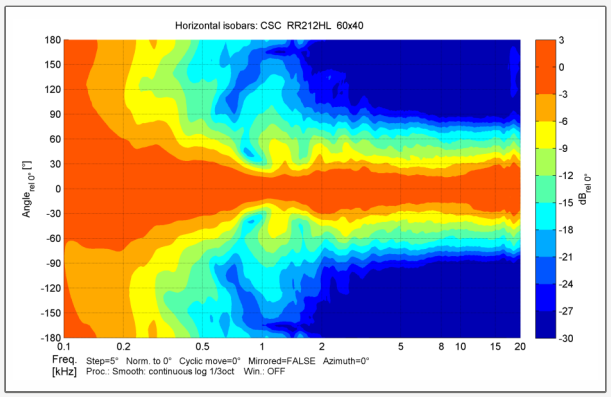


Vertical Polar Coverage (-6 dB)



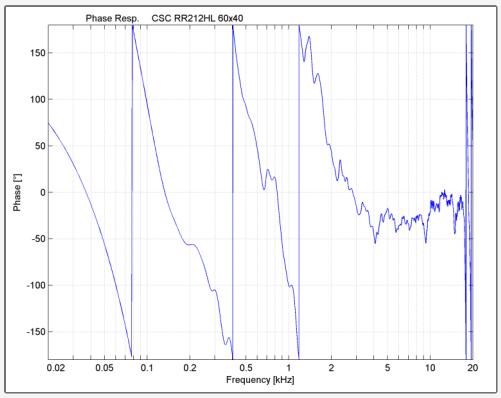
Designed for array configurations, the RR 212hl-40 MK1, RR 212hl-60 MK1 and RR 212hl-90 MK1 maintain a highly controlled vertical dispersion of 40°, enable tailored vertical coverage in flown or stacked deployments.

Horizontal Polar Coverage (-6 dB)



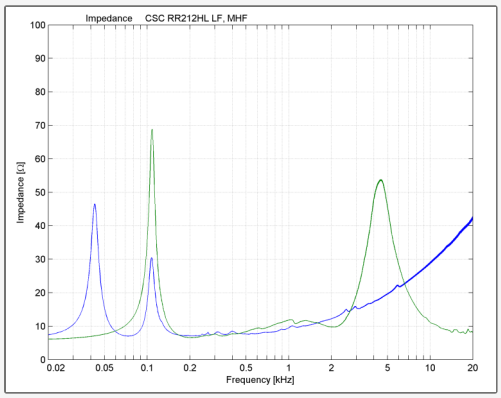
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Phase Response



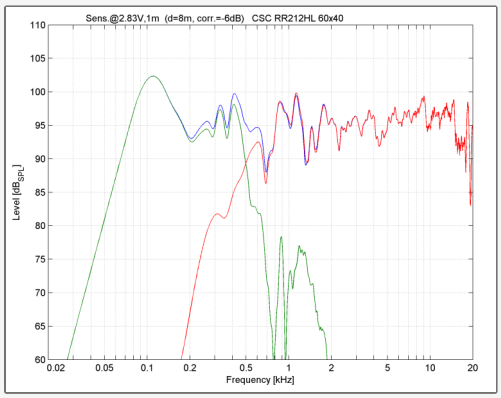
With a minus 50-degree phase angle between 2kHz and 20kHz it ensures accurate midrange propagation. This performance ensures intelligible vocals and instruments in complex acoustic spaces like stadiums or cathedrals.

Impedance Plot



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Frequency Response (Crossover Split)

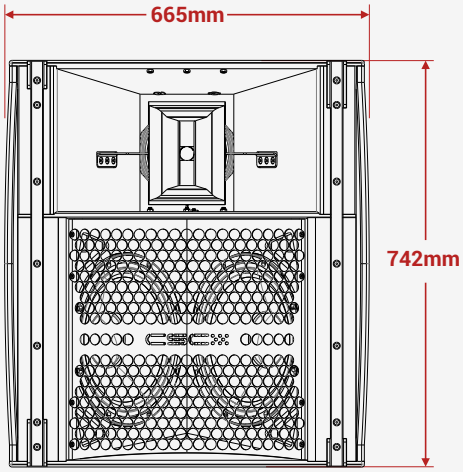


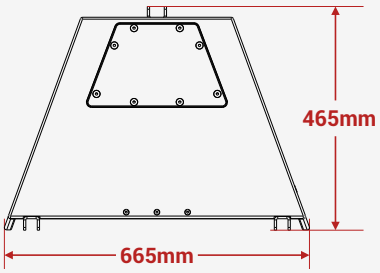
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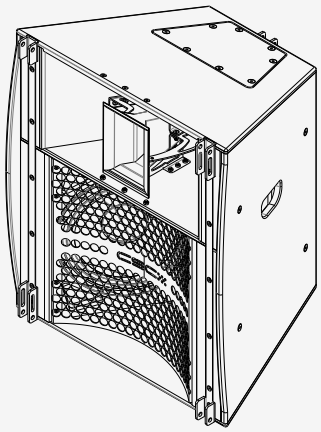
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MODEL NO	RR 212hl-90 MK1
Type	Bi-amped, Horn loaded, Coaxial, cThree way, Long throw, Mid-high
Frequency Response	75 Hz - 20 kHz
Drivers	LF: 2x12" with a 2.5" V C, MF: 8" with a 2" VC and HF:1" with a CD 1.4"
Sensitivity (1 W / 1 m)	103 dB
Maximum Spl Continuous/max	130 dB
Maximum Spl Peak	136 dB
Nominal Impedance	LF ; 8 ohms, HMF :8 ohms
Dispersion (V X H)	40° x 90°
Crossover	LF/HMF bi-amped, MF/HF passive
Enclosure	Baltic birch ply
Finish	Textured black paint
Protective Grill	Perforated Powder-coated Steel
Connectors	2 x Neutrik NL8
Pin Connections	Input LF: ± 3, HF: ± 4 Link through LF ± 3, HF: ± 4
Standard Colours	Black / White
Fitting	Inbuilt flying system without flying frames
Horn	Non Rotatable
Nominal/ AES Power	600/200/60 watts
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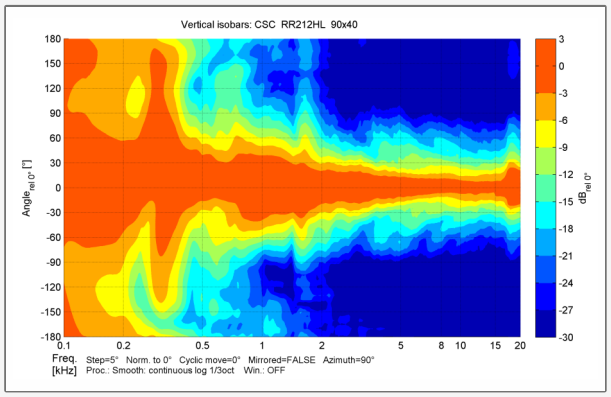
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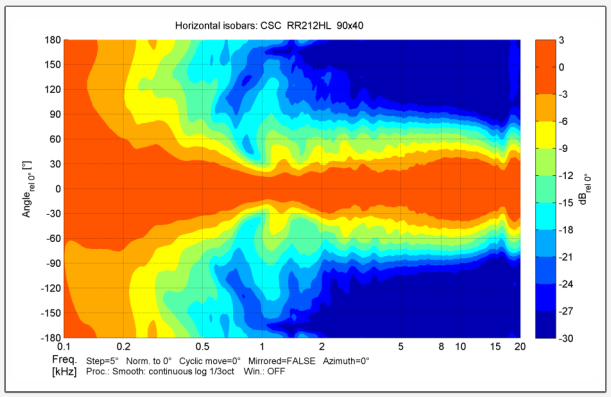


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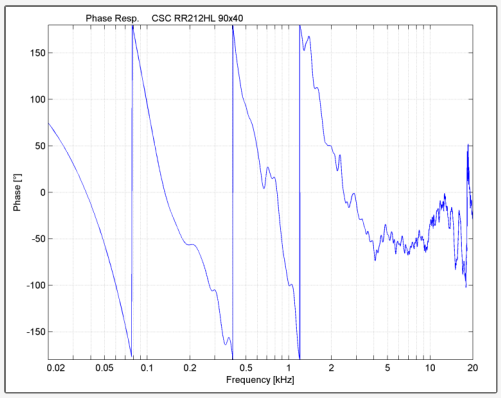
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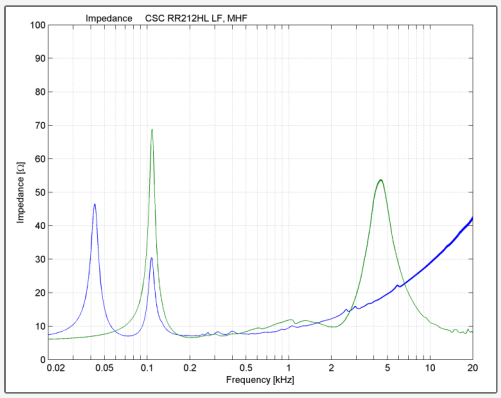
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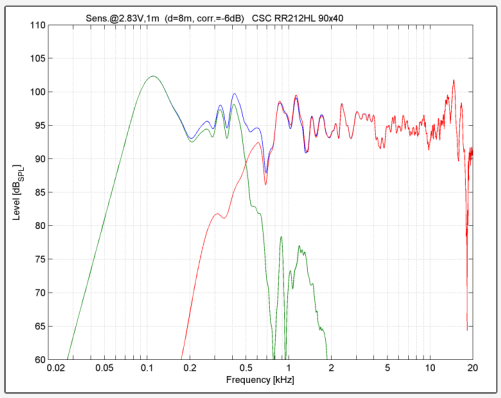
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Frequency Response (Crossover Split)



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