



Dolby System 128

Screen Channel Speaker

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Screen Channel Speaker

Designed to meet the needs of today's large, immersive venues, **Dolby's new System 128** screen channel speaker with its patented asymmetrical waveguide, delivers superior audio coverage and uniform volume shading for every seat in the venue. Purpose built for auditoriums of approximately **66 feet (20 meters) in depth**, the System 128 is comprised **of (1) CS128MH** mid/high passive loudspeaker for delivering enhanced mid and high-frequency detail, and **(1) CS128LF** loudspeaker for low-frequency energy, providing greater articulation and enhanced low frequency extension. These two cabinets work in concert to create a **bi-amplified 3-way screen channel speaker system** that provides better audience coverage, lower distortion (discomfort), and extended, premium low-frequency delivery.

With intuitive ergonomic design features like the **side-mounted input plate** and **shallow 13.4" (340 mm) depth**, the Dolby System 128 enables quick, easy installation in auditoriums where space is limited. Built on the foundation of the Dolby's industry-leading system design and support philosophy, the Dolby System 128 provides elevated large-format auditorium performance and simplifies speaker integration.



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Screen Channel Speaker

Patented advanced **CS128MH asymmetrical waveguide** design provides even coverage and volume shading for the entire auditorium.

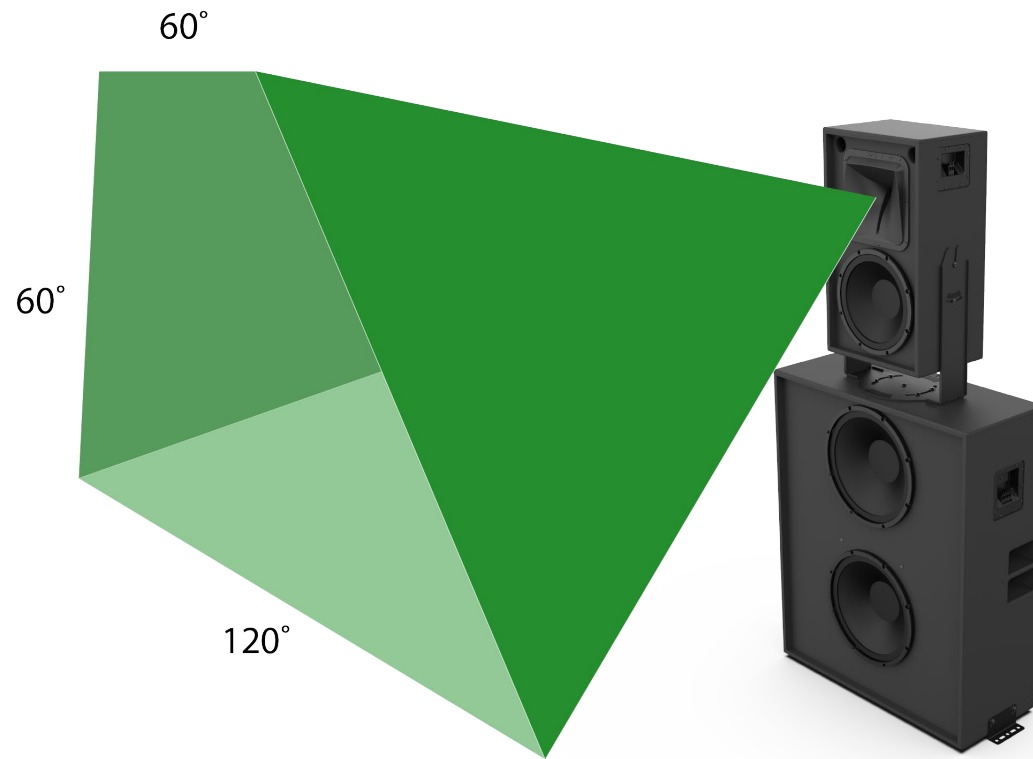
The Asymmetrical coverage pattern **transitions** from **60°** at the top, to **120°** at bottom of the waveguide ensuring optimized volume and throws to the rear seats while gradually widening and softening coverage for the closer seats, **creating very articulate and uniform dialog and soundtrack delivery** not experienced with other systems.



CS128MH

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Screen Channel Speaker

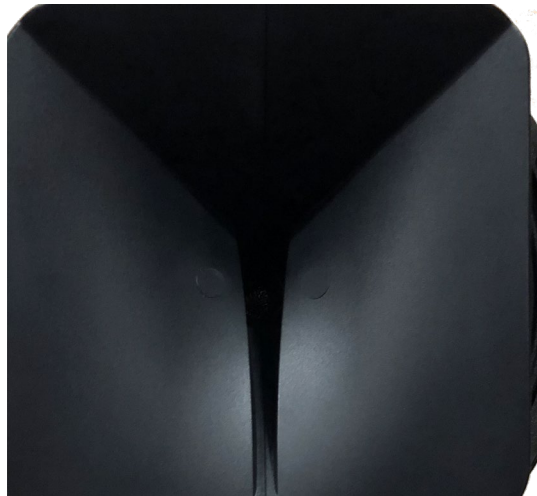


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CS128MH Components

Based on the patented asymmetrical horn design used on the **MA460** & **MA480**, which proved very successful at providing even coverage across the entire dispersion pattern.

MA460AS



CS128MH



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CS128MH Components

Low-distortion **75mm titanium dome** high-frequency driver delivers smooth and faithful response up to 20 kHz.



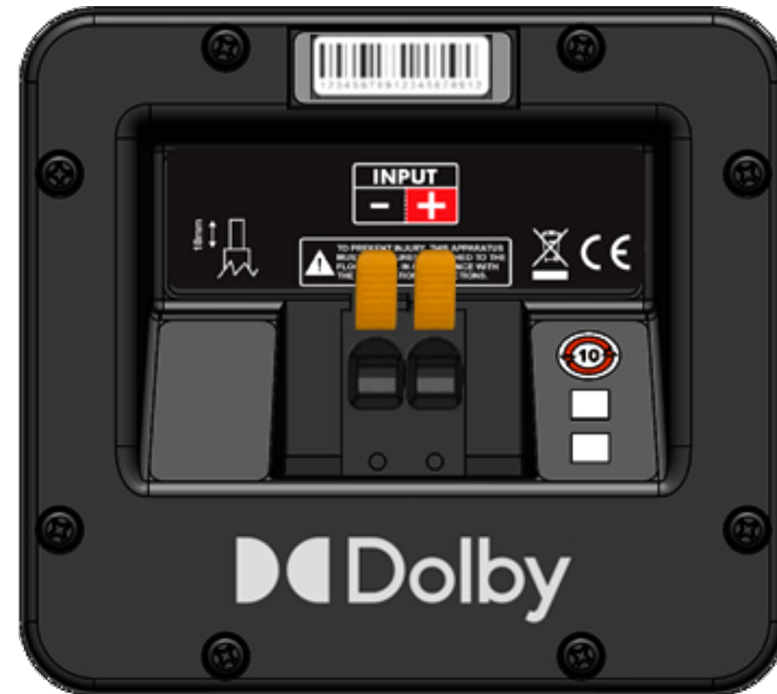
High sensitivity, 12" mid-frequency driver incorporates motor and suspension technology that **optimizes cooling**, as well as an aluminum demodulation ring for **decreased distortion**.



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CS128MH Components

Advanced CS128MH input plate features a high-current, spring-loaded terminal block which allows for quick, **tool-free connection** during installation.

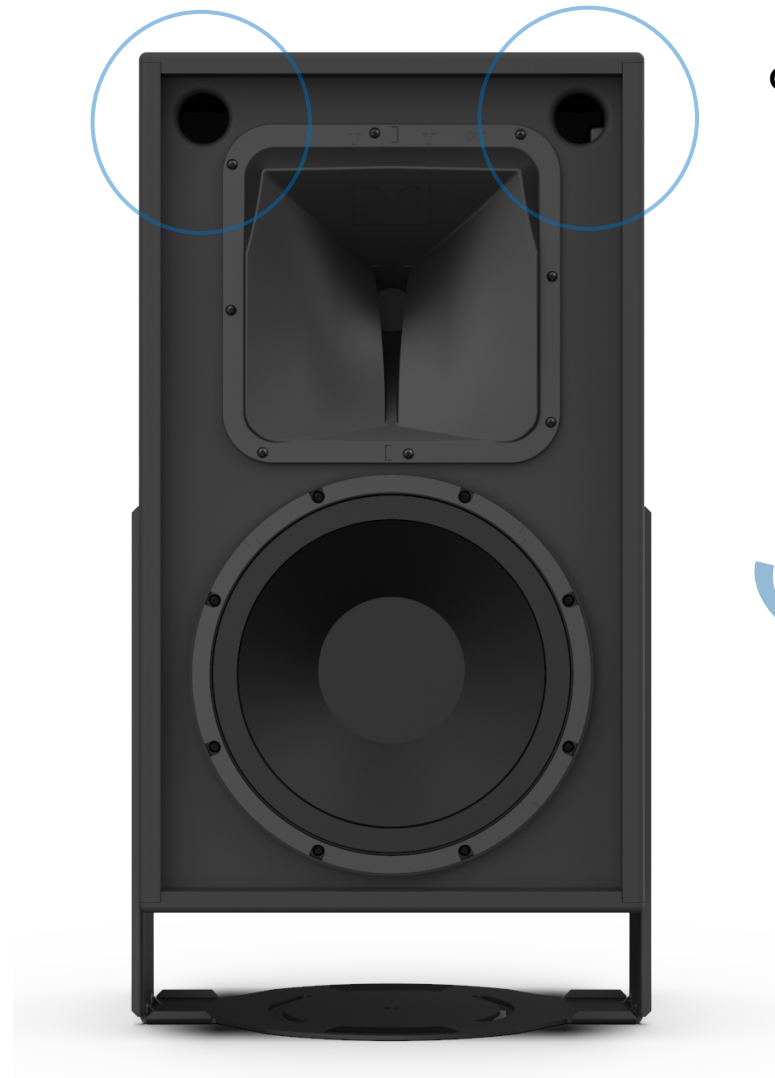


CS128MH ADVANCED INPUT PLATE

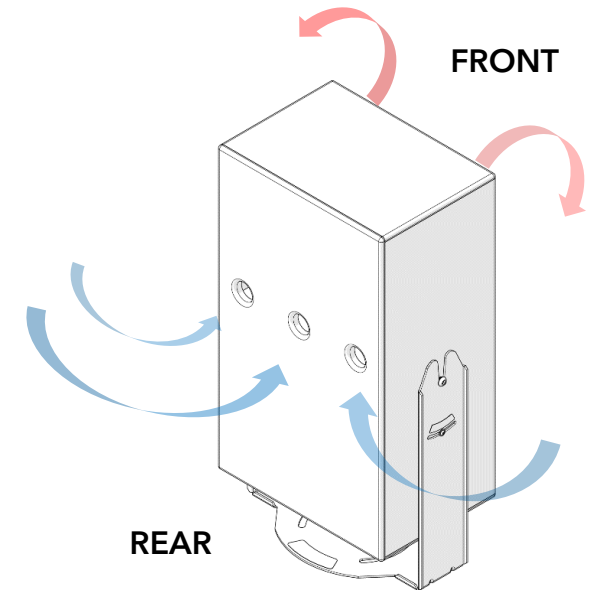
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CS128MH Components

The CS128MH employs front and rear **natural convective cooling vents** which are specifically directed to reduce heat near the HF driver and crossover.



CS128MH
COOLING VENTS



Dolby System 128

CS128MH Components

Steel mounting yoke with vertical and horizontal alignment guides **included** with **CS128MH**, making installation and accurate aiming quick and easy



**CS128MH
INCLUDED MOUNTING YOKE**

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CS128LF Components

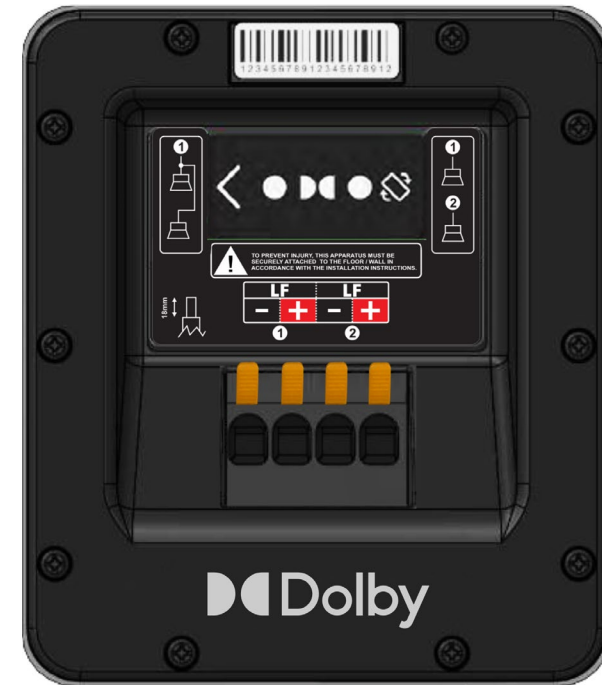
Housed in a space saving **13.5" (34 cm) deep** quality constructed wood cabinet, each of the two custom, 15" drivers have been space and alignment optimized, (always a challenge with shallow LF enclosures) and operate within their own **independent chambers**, greatly improving performance and reliability.



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CS128LF Components

An advanced input plate featuring a high-current, spring-loaded terminal block, allows for quick, tool-free connection during installation and unique **Flip-Card signal routing** enables either **parallel (single-channel/4 Ohm)** or **independent (dual-channel/8 Ohm)** operation maximizing available amplifier power



CS128LF INPUT PLATE WITH ROUTING IN PARALLEL MODE

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CS128LF Components

Dual side acoustic ports (one on each side of the cabinet) can also be used as **integrated handles** to improve safety and handling during unboxing and installation.

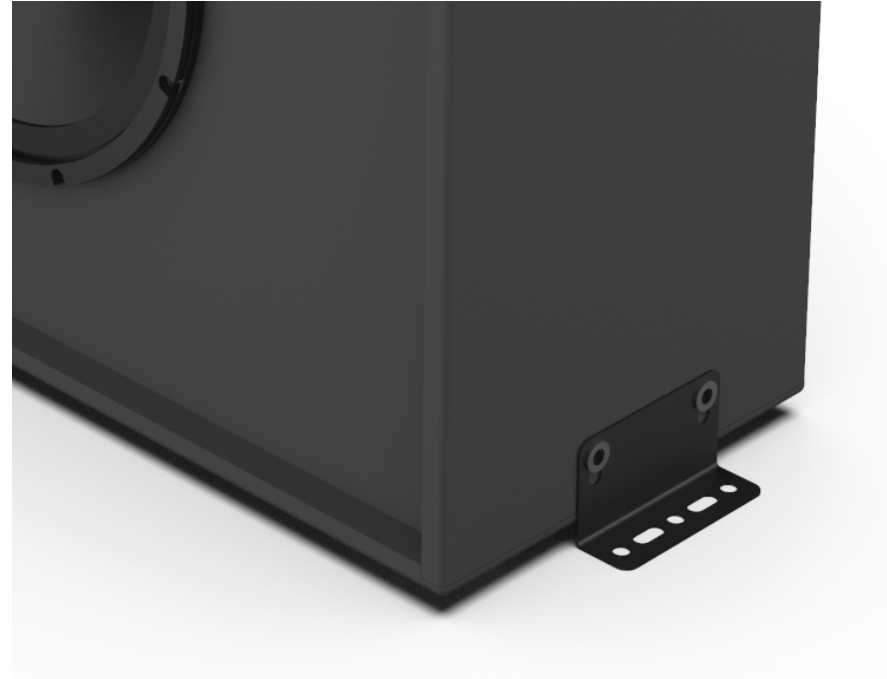


CS128LF
ACOUSTIC PORT/HANDLES

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CS128LF Components

Optional **BKT.FLR Floor-bracket kit** (sold separately) allows for mechanical connection of the speaker stack to the auditorium mounting surface.*



CS128LF SHOWN WITH OPTIONAL
BKT.FLR FLOOR BRACKETS*

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CS128LF Components

***NOTE: BKT.FLR** - Floor-brackets (sold separately) must be used to secure the entire speaker system to the auditorium mounting surface.

Sound and vibration from this type of speaker system is high and may cause cabinets to shift. Failure to secure the bottom speaker cabinet to the mounting surface may result in a tip/fall of the entire system which may cause damage or injury. Proper selection of mounting hardware is not included and proper assembly and installation of mounting hardware, including, but not limited to, selection of appropriate weight bearing support and bracket use is the exclusive responsibility of the installer. Dolby disclaims any liability, including damage or injury, for the selection of i) non-Dolby manufactured mounting hardware or ii) third-party manufactured mounting hardware not previously approved in writing by Dolby, and/or bracket installation. Any modification to the speaker system hardware provided by Dolby (i.e. mounting by drilling holes into the speaker system) will result in a null and void product warranty.

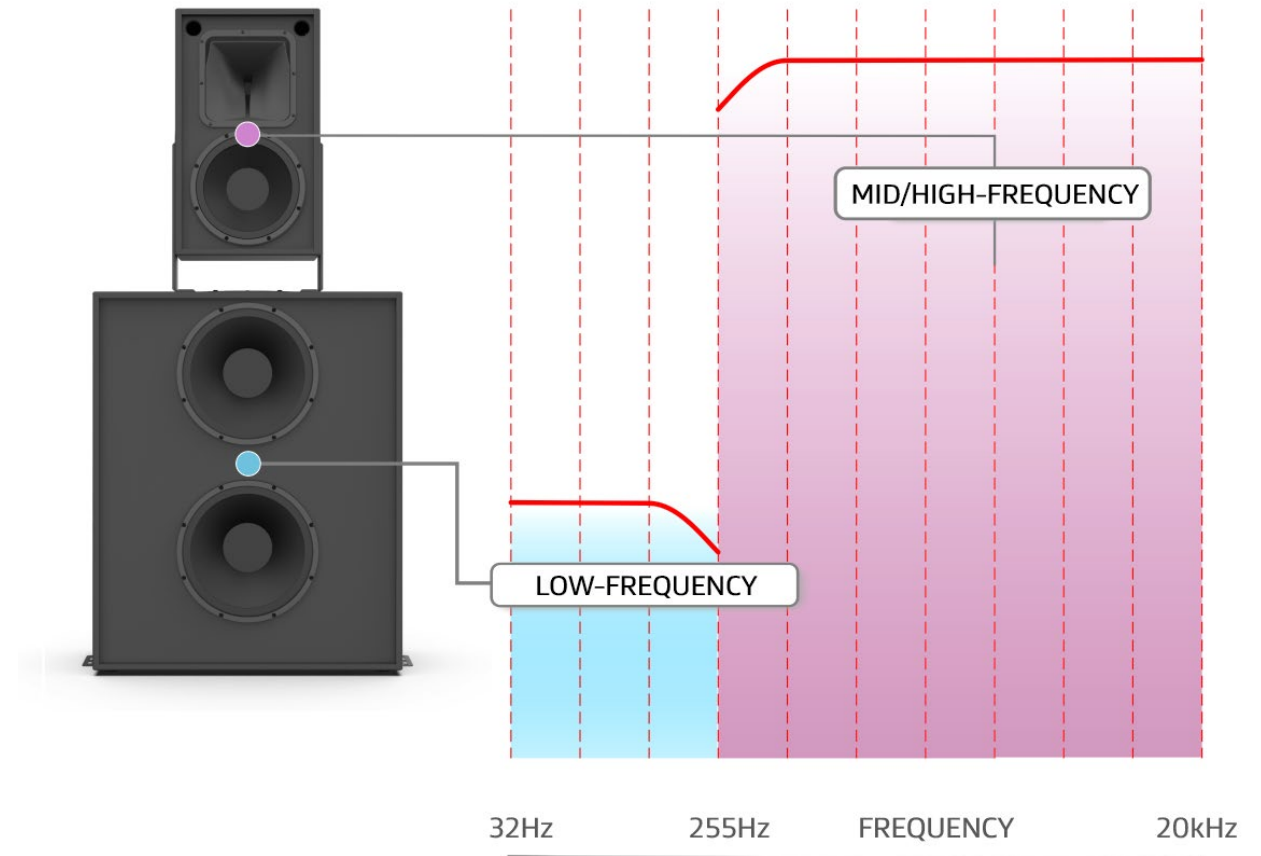
Dolby System 128

Performance

Bi-Amp Operation

The **CS128MH** mid/high unit receives a **single amplifier channel** containing all audio above 255Hz. That signal is divided and properly routed by the internal passive crossover, split at 1.8KHz to the 75 mm high-frequency driver and the 12" mid frequency driver.

The **CS128LF** low-frequency unit receives a **single amplifier channel** containing all audio below 255Hz. The flip card PCB is set on the Parallel / 4 Ohm configuration where both 15" low-frequency drivers are powered by one amplifier channel, thus keeping the overall channel count to just two.



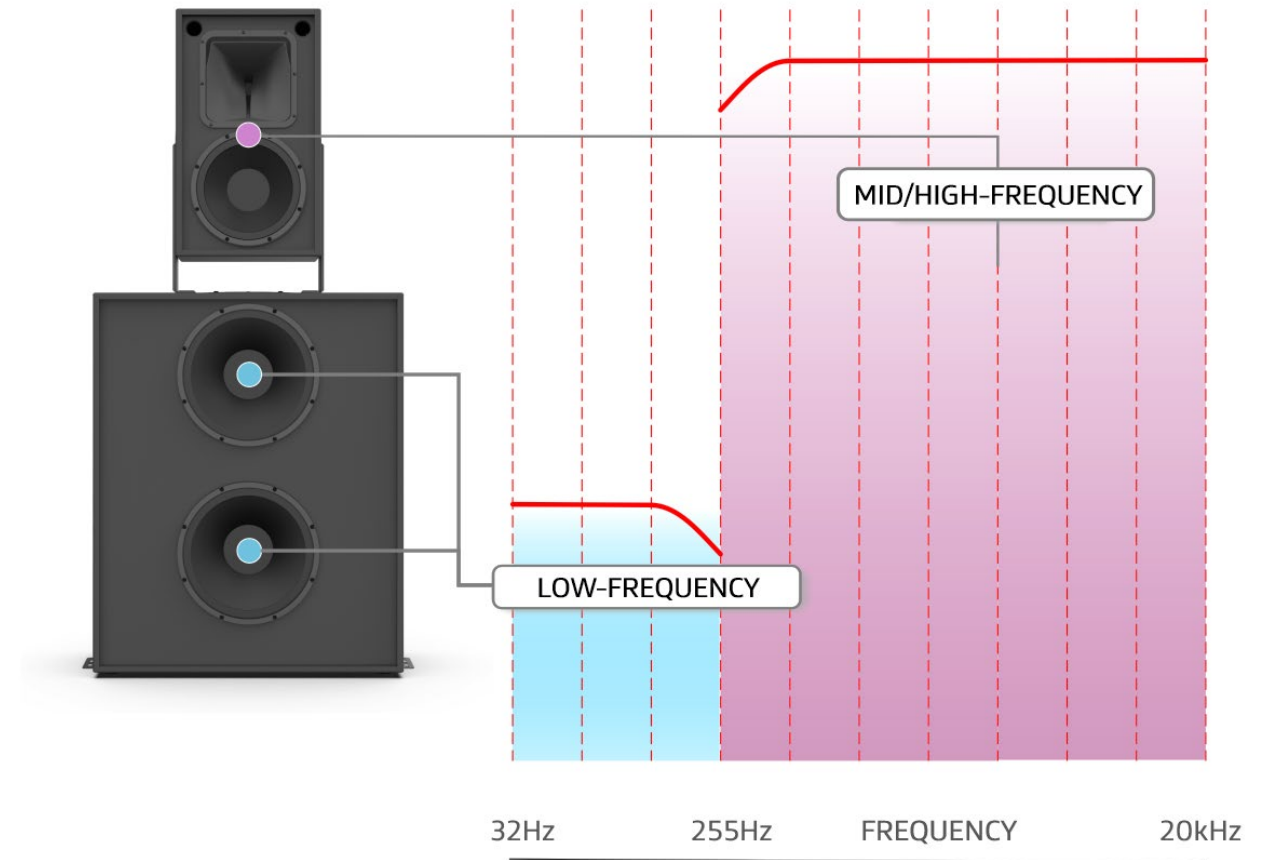
Dolby System 128

Performance

Tri-Amp Operation

The **CS128MH** mid/high unit receives a **single amplifier channel** containing all audio above 255Hz. That signal is divided and properly routed by the internal passive crossover, split at 1.8KHz to both the 75 mm high-frequency driver and the 12" mid frequency driver.

The **CS128LF** low-frequency unit receives **two individual amplifier channels** containing all audio below 255Hz. The flip-card PCB is set on the Individual / 8 Ohm configuration where both 15" low-frequency drivers are individually powered by their own amplifier channels, thus slightly increasing some overall performance characteristics.

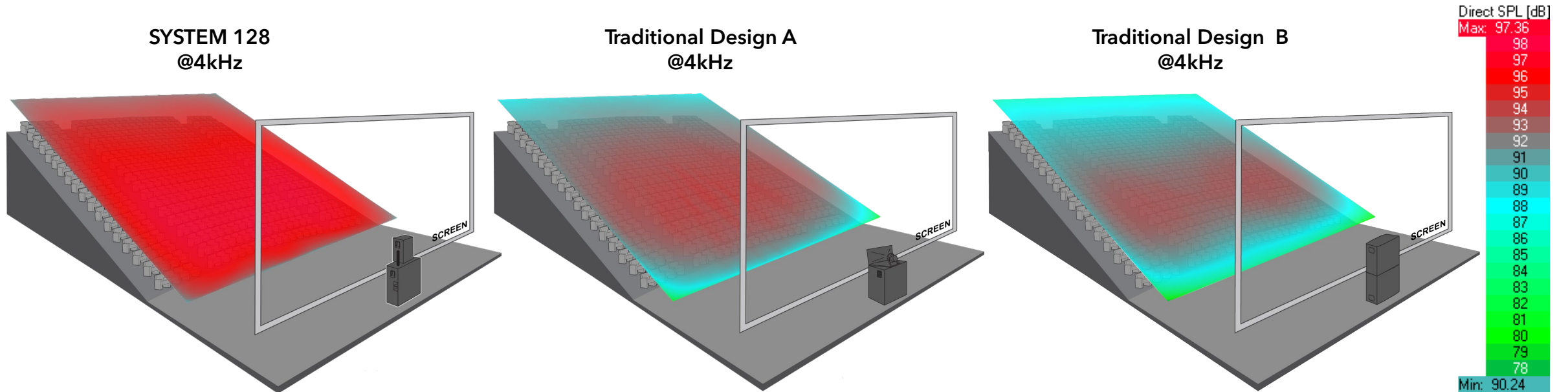


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Performance 4 KHz

Audience Coverage

Much like the Systems 136 & 133, the System 128 was designed with audience coverage as a primary metric. The **Patented** Dolby System 128 **asymmetrical waveguide** with purpose-designed horizontal pattern transitions (from 60° at the top, to 120° at the bottom) have now harmonized performance and cost to produce very uniform coverage which until recently was only achieved by using line arrays. The coverage plots gathered from laboratory data (below) illustrate the difference in **coverage uniformity** at 4 kHz between the Dolby System 128 and a popular direct competitor's offering.

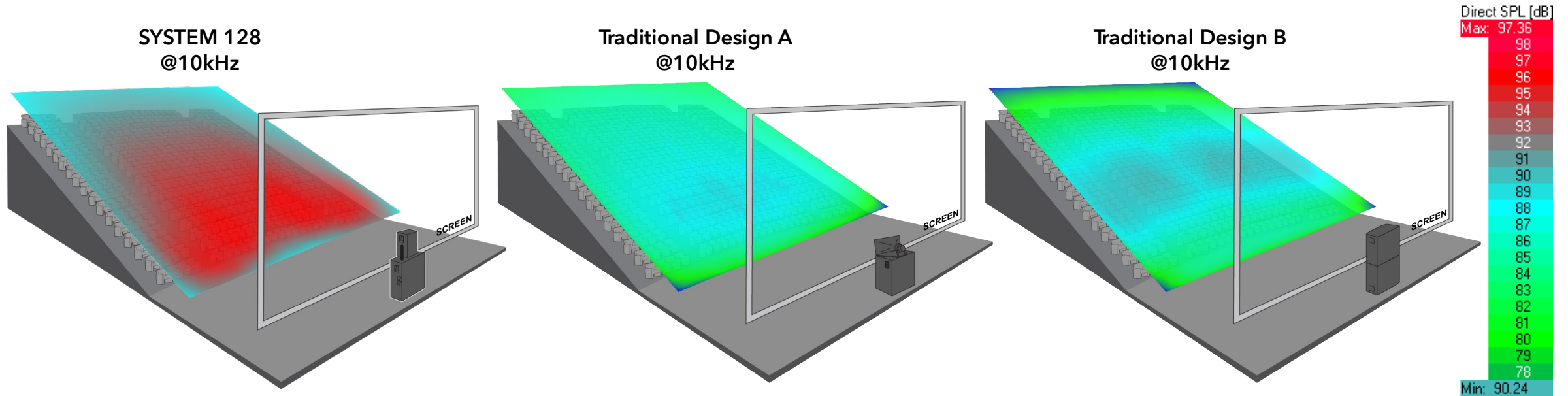


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Performance 10 KHz

Audience Coverage

In these illustrations (below) the coverage plots again show less disparity throughout the auditorium in the overall sound pressure levels up in the 10kHz (brilliance) range, where fine, high-frequency sections of the dialog, foley and soundtrack occur. Audio engineers spend a lot of time and effort mixing in this frequency range to enhance detail and localization. Smooth and predictable coverage in this band is pivotal to an effective and immersive experience.



Dolby System 128

Specifications

Frequency Range ¹	39Hz - 20kHz
Usable LF Response ²	32Hz
CS128MH Coverage Window (Asymmetrical) ³	60° top H, 120° Bottom H, 60° V
CS128MH Rated Impedance	8 Ohms
CS128LF Rated Impedance	4 Ohms parallel/ 8 Ohms x 2 (independent mode)
CS128MH Sensitivity @ 1 Watt ⁴	101dB
CS128LF Sensitivity @ 1 Watt ⁵	101dB
CS128MH Power Handling ⁶	300W @ 49Vrms
CS128LF Power Handling ⁷	600W @ 49Vrms
CS128MH Maximum Continuous SPL @ 1 meter ⁸	126dB
CS128LF Maximum Continuous SPL @ 1 meter ⁹	129dB
SYS128 Maximum Summed Continuous SPL @ 1 meter ¹⁰	131dB
Input/MF	Barrier Strip (advanced input plate w/high-current spring-loaded terminal block)
Input/LF	Barrier Strip (advanced input plate w/flip card and high-current spring-loaded terminal block)
Enclosure	Wood
Accessories	BKT.FLR Floor Bracket Kit (sold separately)
Dimensions	70.80"H x 32.74"W x 13.4"D (179.8 x 83.2 x 34 cm)
Weight (System Stack)	186 lb (84.37 kg)

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Specifications

1. +3dB/-6dB in half space conditions using recommended processing
2. -10dB in half space conditions
3. Horizontal Top and Vertical -6dB averaged to on-axis response. Horizontal Bottom -9dB averaged to on-axis response for near-field proximity compensation
4. Measured with 12 dB crest pink noise @ 2.83 Vrms in whole- space conditions with required high- pass filter (HPF) and 48 dB bandwidth (BW) low-pass filter (LPF) @ the rated system frequency range.
5. Measured with 12 dB crest pink noise @ 2 Vrms in half-space conditions with required processing
6. 12 dB crest pink noise for two hours with required HPF and 48 dB bandwidth (BW) low-pass filter (LPF) @ the rated system frequency range, calculated power based on rated impedance.
7. 12 dB crest pink noise for two hours with required HPF and LPF based on AES2-2012 standard; calculated power based on rated impedance.
8. Calculated from rated sensitivity and power.
9. Calculated from rated sensitivity and power.
10. Total SPL is a noncoherent summation.

Dolby System 128

Frequently Asked Questions

What is the System 128?

- The new Dolby System 128 is the newest addition to the growing family of Dolby-branded speakers for cinema. It is a point-source screen speaker designed for large auditoriums up to approximately **66 feet (20 m)** in depth.

Why did Dolby develop the System 128?

- Dolby is continually striving to bring the best immersive experiences to audiences. With that in mind we endeavored to apply all of our engineering knowledge to creating best-in-class screen speakers that would be worthy of the Dolby brand. These speakers bring exceptional performance combined with measurable value to customers seeking to **elevate** their customers' **audio experience**.

Dolby System 128

Frequently Asked Questions

What are the main features?

- Patented **asymmetrical horn** with front-to-back volume shading for more concise coverage
- Higher quality hi-frequency compression driver with **lower distortion**
- High sensitivity, 12" mid-frequency driver with motor and suspension technology that optimizes cooling, as well as an aluminum demodulation ring for decreased distortion.
- **Advanced input plates** with unique flip-card electrical routing and "no-tool" connection
- Exceptionally rigid bracing and stringent vibration & drop testing
- Integrated **combination port/handles** for easier handling and installation
- **Shallow, 13.4" (340 mm) depth** and laterally mounted input plate enable both easy installation and service access in challenging spaces

Dolby System 128

Frequently Asked Questions

Why should I buy these over any other competing screen speaker?

- The System 128 delivers more consistent audio coverage; has less distortion in critical frequencies; has more low-end; and is easier to install than other speakers in its class

When can I buy a System 128

- Product availability is currently targeted for Autumn 2021

Why is this a DOLBY speaker, and not an SLS speaker?

- We have engaged our industrial design, engineering, product management and support teams to evolve the current SLS speaker portfolio into an even more performant, ergonomic and aesthetic Dolby branded speaker solution that is reflective of the quality and innovation shown in the rest of our professional cinema product line.



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