



# Dolby System 126

## Screen Speaker

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# Dolby System 126

## Screen Channel Speaker

### Optimized coverage with bi-amp or single-amp-channel operation for small-to-medium-sized auditoriums

Designed to meet the needs of today's small-to-medium-sized immersive venues, Dolby's new **System 126** screen speaker features a patented asymmetrical waveguide delivering exceptional audio coverage, as well as both bi-amplified\* or passive, single-amp-channel operation



# Dolby System 126

## Screen Channel Speaker

Built for auditoriums of up to approximately **49.9 feet (15.2 meters) in depth**, the System 126 consists of (1) **CS126MH** mid/high loudspeaker and (1) **CS128LF** low-frequency loudspeaker, and with the simple addition of the optional (PXO.126) plug-in crossover, the System 126 can be operated as a passive, single-amp-channel speaker system in applications where amplifier channels may be limited.

With Dolby's intuitive ergonomic design features like **side-mounted input plates**, and a shallow 13.4" (340 mm) depth, the Dolby System 126 makes installation easy in auditoriums where space might be limited. Built on the foundation of Dolby's industry-leading system design and support philosophy, the Dolby System 126 helps simplify speaker integration while offering many of the same features and benefits found in the Dolby flagship PLF speaker designs.

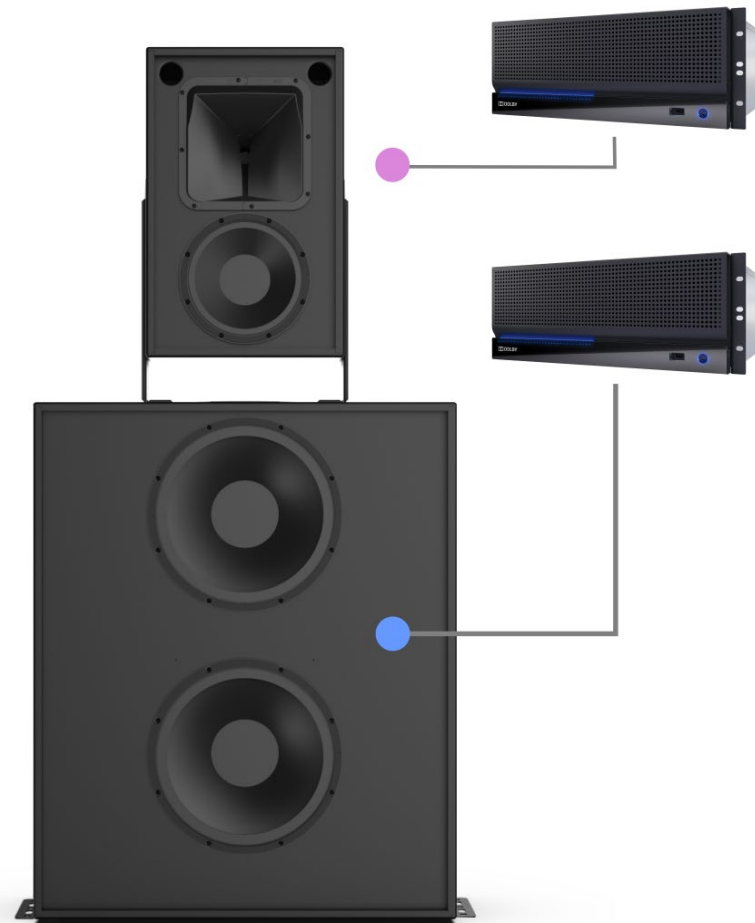


# Dolby System 126

## Screen Channel Speaker

The Dolby System 126 can be installed in two different configurations. The different configurations are based on the number of amplification channels used.

For **Bi-Amp Mode\*** two pairs of wires are connected to the speaker stack from two amplifier channels. One pair goes to the CS126MH for mid/high-frequency audio, and the second pair goes to the CS128LF for low-frequency audio. This is the standard configuration, as shipped, with no optional PXO.126 crossover used.



BI-AMP MODE

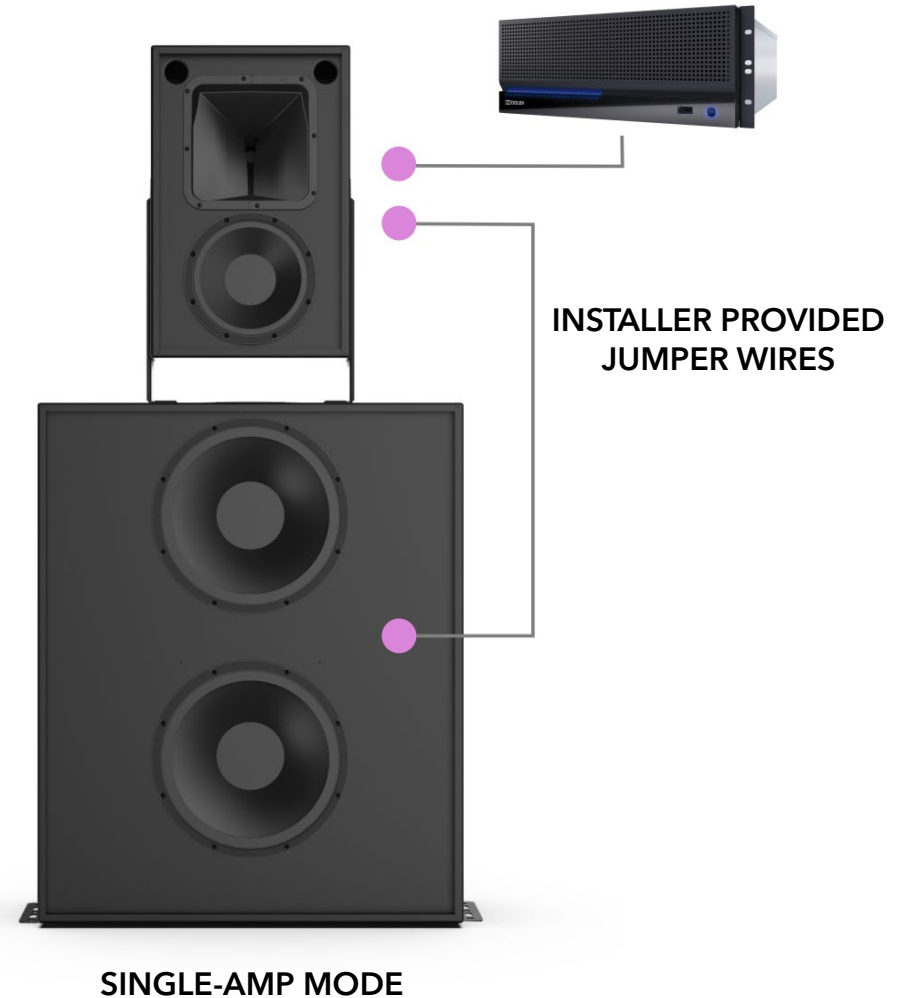
# Dolby System 126

## Screen Channel Speaker

For **Single-Amp Mode**, a single pair of wires is connected to the **CS126MH** from the amplifier. A full-range crossover (**PXO.126**) is installed in the top of the CS126MH cabinet to route the audio correctly. A short pair of jumper wires (installer provided) is used to connect the **CS126MH** to the **CS128LF**. The PXO.126 is available separately and must be installed in each System 126 for single-amp mode.



ACCESS PANEL



SINGLE-AMP MODE

# Dolby System 126

## CS126MH Components

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

Based on the very successful horn designs previously used on other Dolby branded stage speakers, the **CS126MH** adopts use of a technology which is now proven for providing even coverage across the entire dispersion pattern.

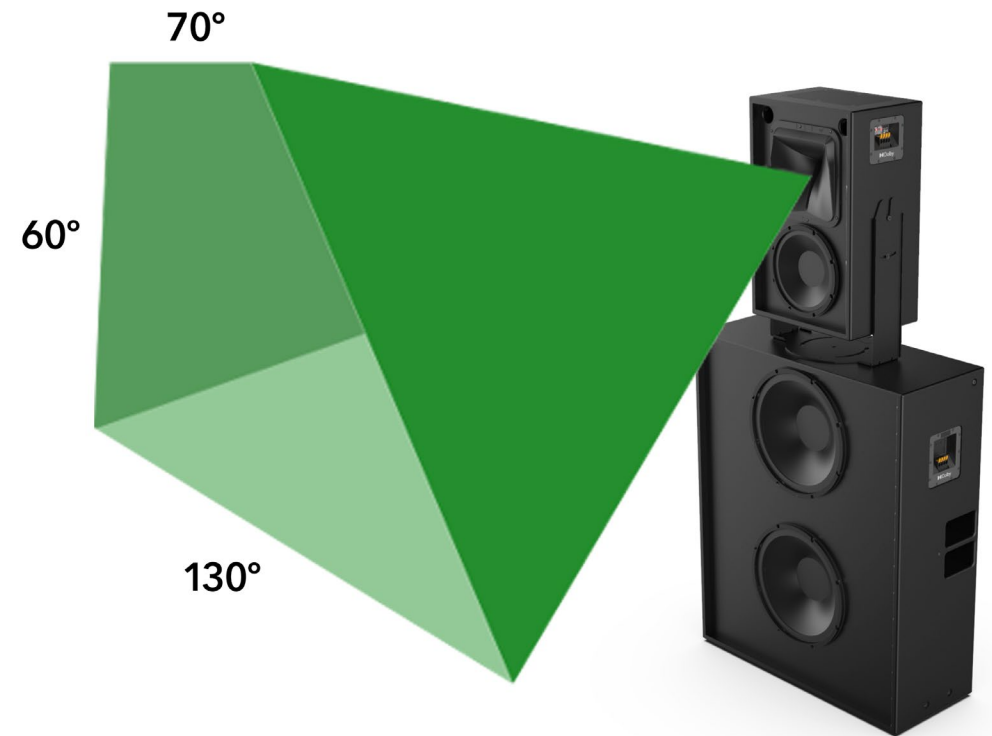


CS126MH HORN

# Dolby System 126

## CS126MH Components

The asymmetrical coverage pattern **transitions** from **70°** horizontal at the top, to **130°** horizontal at bottom of the waveguide, with a vertical pattern of **60°** ensuring optimized volume and throws to the rear seats while gradually widening and softening coverage for the closer seats. This coverage design ensures **articulate and uniform dialog and improved soundtrack delivery** not experienced with other systems.



# Dolby System 126

## CS126MH Components

Low-distortion **44.4 mm polyimide dome** high-frequency driver delivers smooth and faithful response up to 20 kHz.

High sensitivity, 10" mid-frequency driver incorporates motor and suspension technology that **optimizes cooling** for long life and accurate reproduction.



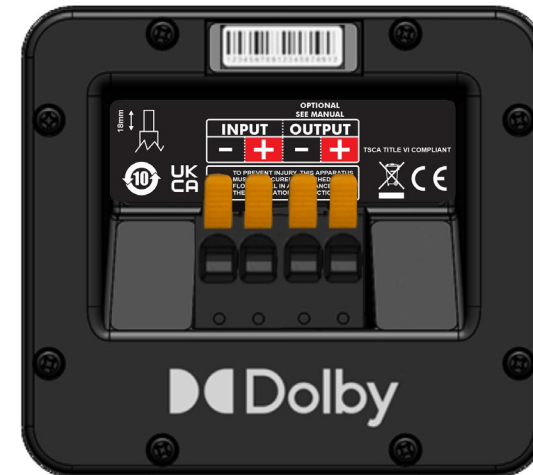


# Dolby System 126

## CS126MH Components

Advanced **CS126MH input plate** features both input and output, and a high-current, spring-loaded terminal block which allows for quick, **tool-free connection** during installation.

The **output** connections are used when employing single-amplifier-channel operation. The **PXO.126** optional crossover must be installed into the **CS126MH**. The **output** is then wired to the **input** on CS128LF.



CS126MH INPUT PLATE

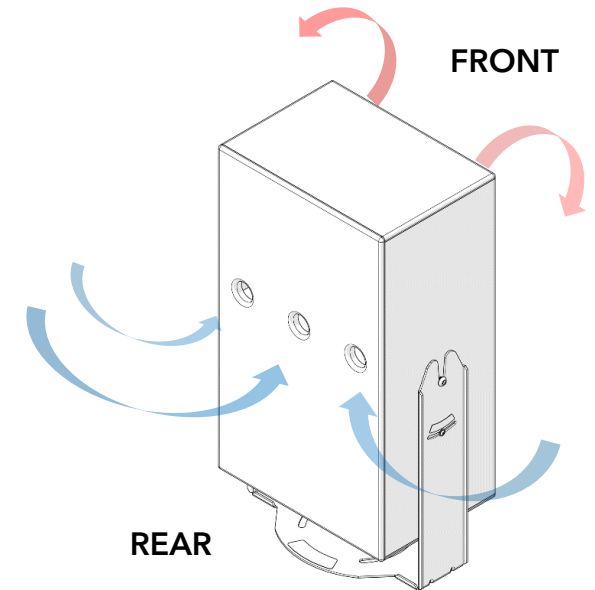
# Dolby System 126

## CS126MH Components

The CS126MH employs front and rear **natural convective cooling vents** which are specifically directed to reduce heat near the HF driver and crossover.



CS126MH  
COOLING VENTS



# Dolby System 126

## CS126MH Components

Steel mounting yoke with vertical and horizontal alignment guides are **included** with **CS126MH**, making installation and accurate aiming quick and easy



**CS126MH  
INCLUDED MOUNTING YOKE**

# Dolby System 126

## CS128LF Components

Housed in a space saving **13.5" (34 cm) deep** cabinet, each of the two **CS128LF** 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.



CS128LF

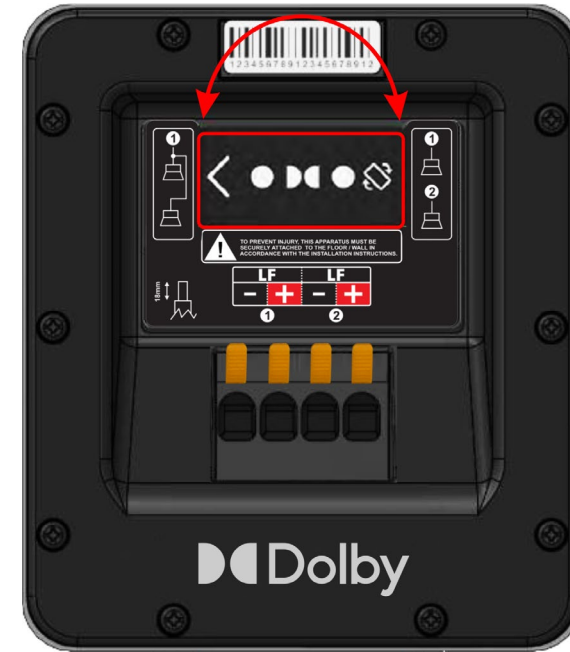
# Dolby System 126

## 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

**Note:** Only parallel mode on CS128LF should be used when System 126 is in single-amplifier-operation.

In System 126 bi-amplifier-mode, either parallel or independent could be used.



**CS128LF INPUT PLATE WITH ROUTING IN PARALLEL MODE**

# Dolby System 126

## 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.

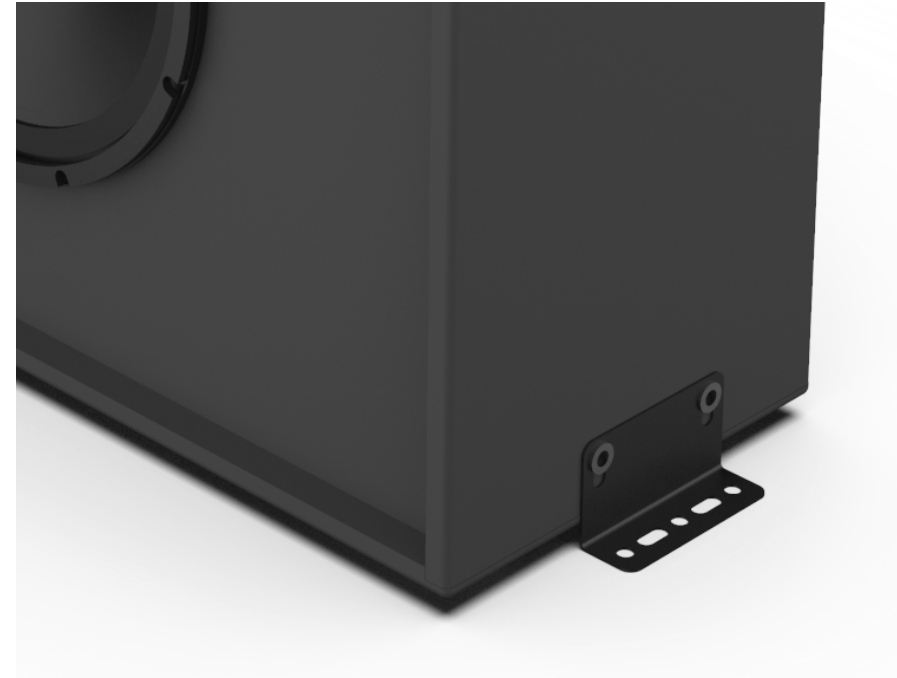


CS128LF ACOUSTIC PORT/HANDLES

# Dolby System 126

## 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

# Dolby System 126

## Specifications\*\*\*

Frequency range <sup>1</sup>	39 Hz - 20 kHz
Usable LF response <sup>2</sup>	32 Hz
Coverage window (asymmetrical) <sup>3</sup>	70° top H, 130° Bottom H, 60° V
Passive, single-amp-channel mode rated impedance	4 Ohms
CS126MH Rated impedance	8 Ohms
CS128LF Rated impedance	4 Ohms parallel/ 8 Ohms x 2 (independent drive)
Passive, single-amp-channel mode sensitivity @ 1 Watt <sup>4</sup>	98 dB
CS126MH Sensitivity @ 1 Watt <sup>5</sup>	100 dB
CS128LF Sensitivity @ 1 Watt <sup>6</sup>	101 dB
Passive, single-amp-channel mode power handling <sup>7</sup>	400 W @ 40 Vrms
CS126MH Power handling <sup>7</sup>	200 W @ 40 Vrms
CS128LF Power handling <sup>8</sup>	600 W @ 49 Vrms
Passive, single-amp-channel mode power draw <sup>9</sup>	250 W
CS126MH Power draw <sup>9</sup>	170 W
CS128LF Power draw <sup>9</sup>	420 W
Passive, single-amp-channel mode maximum voltage peak <sup>10</sup>	160 Vpk
CS126MH Maximum voltage peak <sup>10</sup>	160 Vpk
CS128LF Maximum voltage peak <sup>11</sup>	138 Vpk



# Dolby System 126

## Specifications\*\*\*

Passive, single-amp-channel mode maximum continuous SPL @ 1 meter <sup>12</sup>	124 dB
CS126MH Maximum continuous SPL @ 1 meter <sup>12</sup>	123 dB
CS128LF Maximum continuous SPL @ 1 meter <sup>12</sup>	129 dB
Bi-amp mode summed continuous SPL @ 1 meter <sup>13</sup>	128 dB
Passive, single-amp-channel mode measured acoustic peak SPL @ 1 meter <sup>14</sup>	135 dB
CS126MH Measured acoustic peak SPL @ 1 meter <sup>14</sup>	135 dB
CS128LF Measured acoustic peak SPL @ 1 meter <sup>14</sup>	139 dB
Bi-amp mode summed acoustic peak SPL @ 1 meter <sup>13</sup>	139 dB
Input MF/HF	Advanced input plate w/high-current spring-loaded terminal block (optional crossover for passive, single-amp-channel system operation)
Input LF	Advanced input plate w/flip card and high-current spring-loaded terminal block
Enclosure	Wood
Accessories	Mounting yoke (included) PXO.126 Crossover module (sold separately) BKT.FLR Floor bracket (sold separately)
Dimensions	68.31" H x 33.5" W x 13.4" D (173.5 x 85.1 x 34.0 cm)
Weight (system stack - without PXO.126)	174.7 lb (79.2 kg)
Weight (system stack - with PXO.126)	176.5 lb (80 kg)

# Dolby System 126

## Specifications\*\*\*

1. +3 dB/-6 dB in half-space conditions using required processing.
2. -10 dB in half space conditons.
3. Horizontal top and vertical -6 dB averaged to on-axis response. Horizontal bottom -9 dB averaged to on-axis response for near-field proximity compensation.
4. Measured with 12 dB crest pink noise in half space conditions for LF; whole space for MF/HF equaling the rated system frequency range @ 2Vrms. Total SPL is a noncoherent summation.
5. Measured with 12 dB crest pink noise @ 2.83 Vrms in wholespace conditions with required highpass filter (HPF) and 48 dB bandwidth (BW) low-pass filter (LPF) @ the rated system frequency range.
6. Measured with 12 dB crest pink noise @ 2 Vrms in half-space conditions with required processing.
7. 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.
8. 12 dB crest pink noise for two hours with required processing, based on AES2-2012 standard, calculated power based on rated impedance.
9. Measured average power over 5 seconds at the rated Vrms using 12 dB crest pink-noise with required HPF and LPF. This measured power draw from the amplifier is useful for estimating amplifier sizing in overall system design.
10. Measured Vpk over 100 hours using a Hann shaped sine-wave burst spaced at 1/3rd oct intervals within the rated passband. This data is useful for setting peak stop limiters and amplifier selection.
11. Measured Vpk over 100 hours using a Hann shaped sine-wave burst at the maximum excursion frequency of the system. This data is useful for setting peak stop limiters and amplifier selection.
12. Calculated from rated sensitivity and power.
13. Total SPL is a noncoherent summation. LF max SPL reduced 3dB for content spectrum system power balancing.
14. Measured peak SPL over 5 seconds at rated Vrms using 12dB crest pink noise with required HPF and LPF.

This documentation applies to **CID1026** and **CID1027**

The English version of this document is the only legally binding version.  
Translated versions are not legally binding and are for convenience only.

\*The term "bi-amplified" used in this document refers to the required mode of operation where a minimum of two external amplifier channels are required. These are unpowered loudspeakers and do not have built-in amplification.

\*\*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.

\*\*\*Specifications are subject to change without notice.





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