

Acoustimass® 15 Series II, 10 Series III and 6 Series III home entertainment speaker systems

Questions and Answers

VALUE PROPOSITIONS:

• Why should consumers invest in a Bose® speaker system?

All Bose speaker systems – at all price points – offer meaningful benefits to consumers that set Bose speaker systems apart in sound quality, ease of use and ease of placement in the home. Research is a priority at Bose, both for developing new technologies and improving existing ones. And Bose stands behind its products. These are just some of the reasons Bose is considered the most respected name in sound.

• Who are the target customers for Acoustimass home entertainment speaker systems?

Acoustimass home entertainment speaker systems are designed for consumers who desire the twin benefits of high-performance sound *and* low-profile equipment. These customers either lack the space for five larger speakers or would rather not accommodate full-size speakers into their décor. Acoustimass speaker systems deliver high quality, full-range speaker performance without taking up valuable space in the room.

• How does a Virtually Invisible® Acoustimass speaker system design deliver high performance from such small speakers?

The lower frequencies of a sound signal – for all channels – are sent to the Acoustimass module which reproduces the sound using proprietary acoustic technologies. All other frequencies are sent to the tiny cube speakers. Because the module delivers deep, full bass with no adverse audible artifacts, in most situations the listener cannot “localize” the bass – a key advantage. It allows the listener to hide the Acoustimass module – the largest part of the system – almost anywhere in the room. All the sound appears to come from the small and elegant cube speakers, which can be placed easily and unobtrusively throughout the room.

• What are some other key benefits of active-passive Acoustimass speaker systems?

As an active-passive speaker system, the Acoustimass module is powered. This enables power from the receiver or amplifier to be directed to the cube speakers, allowing for more efficient and better sounding overall system performance. Active-passive Acoustimass speaker systems are engineered to deliver outstanding quality sound that will play clearly and consistently even at the highest volumes, while providing the appropriate full bass output even at the lowest listening levels. The latter benefit allows listeners to enjoy full, deep bass at any volume and still hear natural-sounding dialogue.

• What are the different Acoustimass home entertainment speaker systems?

• Acoustimass 15 Series II home entertainment speaker system:

Our best Virtually Invisible® home entertainment speaker system, delivering superior sound performance, lifelike spaciousness and exceptionally deep bass. Engineered for the discriminating component-minded consumer who is passionate about home theater and wants the best 5.1-channel Bose offering. This model is easily upgradeable to a 6.1-channel speaker system with the optional center surround channel addition kit.

• Acoustimass 10 Series III home entertainment speaker system:

Our high-performance Virtually Invisible® home entertainment speaker system that offers high-quality sound and lifelike spaciousness. Engineered for the more established component-minded customer who seeks high-quality Bose sound and value in a small-sized speaker system.

• Acoustimass® 6 Series III home entertainment speaker system:

Offers acclaimed Bose® performance and technology in an entry-level Virtually Invisible® home entertainment speaker system. Engineered for the component-minded consumer

who seeks a top-quality yet more affordable home entertainment speaker solution. Also geared to those seeking a speaker solution for a smaller or secondary listening environment.

NEXT GENERATION ACOUSTIMASS MODULE



Key Benefits:

- High output levels from limited cone motion
- Plays deeper – cleanly – at higher output levels
- Reproduces a wider range of frequencies, allowing for small, elegant cube speakers

Shown: Acoustimass 15 Series II module

- **How does the new acoustic design function?**

The proprietary acoustic loading technology terminates in a large area port and ensures high output levels with a relatively small amount of cone motion (see illustration). Limiting the amount of cone motion greatly reduces the level of adverse audible artifacts, which allows the module to remain non-localizable and to be placed almost anywhere within the listening environment.

- **What is the key difference from other acoustic designs?**

The new Acoustimass module has a much larger exit (port) area that allows the module to play deeper – cleanly – at higher output levels than other typical designs.

- **How does the Acoustimass module differ from subwoofers, even though it is downward firing?**

The Acoustimass module is not a “subwoofer,” which typically covers a narrow range of low bass frequencies. The Acoustimass module is capable of reproducing a much wider range of frequencies, thus allowing it to reproduce everything from the deep bass of a typical subwoofer to the lower mid-range of frequencies. It is thus the only bass source necessary to use in conjunction with the cube speakers and allows them to be very small and elegant without compromising overall acoustic performance. The acoustic design of the new Acoustimass module platform provides high output levels from limited cone motion, reducing the amount of adverse audible artifacts from the module, allowing it to remain non-localizable.

- **Can the new module be placed on its side?**

It is recommended that the new module be placed in an upright position. Placing the module on its side may limit its ability to play at full output for extended periods of time.

“Discovery” questions to ask your customers:

- Is quality sound and small size important to you?
- Do you have any space constraints?
- Do you want your speakers to blend easily into your room?
- Do you listen to music or movies at really high volume levels?

PROPRIETARY SYSTEM ELECTRONICS

- **Integrated signal processing**

Integrated signal processing compensates for the human ear's reduced ability to hear bass at lower volume levels. It automatically adjusts the relative amount of appropriate bass output in

order to maintain the proper balance of deep bass at low volume levels. It lets you enjoy the full impact of rich, deep bass at any listening level while ensuring that speech still sounds natural.

“Discovery” questions to ask your customers:

- Do you live in an apartment or condominium with neighbors close by?
- Do you watch movies or listen to music at lower volumes during the day, late at night or when your children are asleep?

- **Multi-channel bass extraction and summation:**

1. General description:

Bose proprietary multi-channel bass extraction and summation is one of the key system electronic features that allow us to provide Virtually Invisible® speaker solutions. It takes bass from all the non-LFE channels at speaker level, pads them down to line (pre-amp) level and combines this with the LFE/subwoofer information (post-LFE control knob adjustment) such that the appropriate bass from ALL channels is reproduced. Then, active equalization is applied and the signal is re-amplified with adjustments from the Bass/Room Compensation control and passed to the speakers in the module. The ultimate benefit is a single bass-reproducing element which removes the need for multiple bass sources and the likelihood of positions in the room where there is too much and too little bass when multiple bass sources are used.

2. Correcting bass phase cancellation:

Multi-channel bass extraction and summation eliminates loss of bass output due to phase cancellation in the bass module. Bass phase cancellation may occur with simple summation of bass signals in a single bass-reproducing element when the soundtrack is recorded with the bass in different channels out of phase (i.e. rear channel information placed out of phase with the front, etc.).

• **Active equalization**

This Bose proprietary technology is always “on”. Active equalization can provide a consistent and finer-tuned result than the passive equalization used in a non-powered bass module. Bose active equalization ensures that each Acoustimass module delivers its best possible response.

NEXT GENERATION CUBE SPEAKERS

• **Direct/Reflecting® speaker technology (Acoustimass 15 & 10 speaker systems only)**

The cube speaker arrays can be pivoted to re-create a more natural balance of reflected and direct sound energy similar to what you'd experience at a concert or cinema. The result is more open, spacious stereo and surround sound throughout the listening area.

• **Matched and magnetically shielded cube speakers**

The cube speakers are acoustically matched to provide seamless surround sound for more realism and consistency of sound from speaker to speaker. And they are magnetically shielded to avoid video interference when placed near television.

• **Use and placement of cube speaker arrays**

The cube speaker arrays are adaptable and easy to fit within the listening area. Each array may be positioned in order to optimize its sound within the individual room. Their position within the listening environment may also be optimized using genuine Bose speaker mounts.

“Discovery” questions to ask your customers:

- Is it important for your music to sound more open and spacious? – (In reference to cube speaker array products).
- Will you be placing the speakers (i.e., center, left or right channel) near video equipment?
- Are “seamless” special effects important to you? When a jet flies across your screen, for instance, do you want it to sound realistic with a consistent sound quality from one side to the other (as opposed to audible “jumps” as it moves across the room resulting from acoustically unmatched speakers)?

OTHER FEATURES

- **Active/passive speaker system design: built-in amplification**

In our active/passive speaker system design, the Acoustimass module has its own dedicated amplifier for the bass frequencies, including the very lowest, allowing the system receiver or amplifier to focus exclusively on powering the tiny cube speakers. Reproducing the low frequencies of bass can require a disproportionately large amount of energy. Therefore, by reducing the demand on the receiver's amplifier, the active/passive system design provides much more impactful, full-range sound from a typical system. In addition, it eliminates the need for a separate subwoofer for easier home theater set-up.

VERY IMPORTANT NOTE ON SYSTEM SET-UP: *If there is no LFE cable connected, be sure that the receiver's "LFE/Subwoofer" setting is OFF. Otherwise, there will be "NO LFE" information sent into the module for reproduction.*

- **New bass room compensation control**

The new bass room compensation control allows you to adjust the overall volume of the new Acoustimass module post-LFE relative to the cube speakers, without affecting the module's frequency response. This enables you to achieve the desired bass performance even in more challenging listening environments.

"Discovery" questions for your customers:

- Is your listening area in a basement or surrounded by stone construction? (It may be better to turn bass control *down*. Try it and see.)
- Is your listening area very open and spacious? (It may be better to turn bass control *up*. Try it and see.)

- **LFE (Low Frequency Effects) control**

The LFE control allows you to adjust (+ and -) the level of low frequency effects from the LFE channel.

VERY IMPORTANT NOTE ON SYSTEM SETUP: *If there is no LFE cable connected, be sure that the receiver's "LFE/Subwoofer" setting is OFF. Otherwise, there will be "NO LFE" information sent into the module for reproduction.*

- **Receiver compatibility**

The new Acoustimass 15 Series II, Acoustimass 10 Series III and Acoustimass 6 Series III systems are 5.1 speaker systems that are fully compatible with 5.1 digital and analog surround sound receivers and amplifiers rated 10 to 200 watts per channel (Acoustimass 15 II and 10 III systems), or 10 to 150 watts per channel (Acoustimass 6 III system) and rated 4 to 8 ohms. Refer to their respective spec sheets for additional electronic compatibility ratings. The Acoustimass 15 Series II system can be upgraded to be compatible with 6.1-channel receivers with the optional center surround channel addition kit.

- **About 6.1**

The Acoustimass 15 Series II speaker system is upgradeable to a 6.1-channel speaker system with the addition of the optional center surround channel addition kit. This allows it to be compatible with receivers that have 6.1 amplified channels to provide more realistic, cinema-like sound from six tiny, spacious-sounding cube speaker arrays and a hideaway Acoustimass module. Because the center surround cube speaker array covers a broad soundstage, you get the full, rich spacious performance of two rear mono speakers – from a single center surround cube speaker array.

Note that there are several receivers on the market which advertise "6.1" but have only 5.1 amplified channels.

- **Ease of connections/simplified setup**

Cables and connectors are included with all Acoustimass speaker systems. Connections and setup are designed to be very user friendly. The audio input cable includes each of the speaker cables and LFE/subwoofer cable banded together with clearly marked connections for the receiver. There's a multi-pin connector for foolproof connection to the Acoustimass module. And each speaker cable has a clearly marked, colored connector for fast, easy connection the Acoustimass module. Furthermore, various adapters and cables are available to accommodate specific installation requirements.