Target your sound

AudioBeam – Beaming sound to your ear
High-quality, directional sound –

Experience the innovative sound of the future: AudioBeam, Sennheiser’s new ultra-directional loudspeaker, allows sound to be placed precisely where you need it. Whether you are enjoying art in a museum, using an ATM, or sitting in front of your PC, the AudioBeam can bring information directly to your ear.
AudioBeam – Total accuracy in every situation

• In exhibitions and museums
AudioBeam brings a new dimension to the way we learn about art and exhibitions. At an art gallery, if a visitor wants to learn about a particular item on display, they could just step inside the designated ‘zone’ and let AudioBeam tell them about it. With the reflective properties of the AudioBeam it is even possible to create the illusion that a painting is describing itself. Manufacturers at a tradeshow could literally let their products speak for themselves.

• Automatic machinery with voice commands
Machines such as ATMs or electronic voting booths could give instructions to the user while providing a high degree of privacy to their transaction.

• At PC workplaces
PC users would have the ability to work without headphones while not disturbing nearby colleagues.

• For security purposes
In confidential situations, AudioBeam has the ability to place audio in only the areas that you want it. While one individual may be able to hear the AudioBeam’s transmission loud and clear, another individual who is in close proximity may be unaware of any sound at all.
Selector switch for input sensitivity (+6 dB, -14 dB)

LED operating display:
green: AudioBeam active
red: AudioBeam inactive

Rear view

Ventilation slots

On/off switch for distance sensor

Wire clip to hold the main cable in place

BNC socket for modulator signal output: OUTPUT

Main power socket

XLR-3 socket for audio input: INPUT

OVERLOAD LED

3/8” threaded hole for stand
The new AudioBeam from Sennheiser utilizes ultrasound technology to focus sound to a specific area with an amazing degree of accuracy. Unlike standard loudspeakers, in which only higher frequencies exhibit directional properties, AudioBeam’s 150 piezoelectric transducers transmit an ultrasonic signal that demodulates at a short distance in front of the unit. This allows you to create a focused, well-defined listening area much like the targeted beam of a spotlight.

Sennheiser engineers refer to the area within the ultrasonic ‘beam’ where sound is audible as the “Generation Zone”. Lower audible frequencies are determined by the distance between the AudioBeam and the “Generation Zone” where the listener is positioned. This characteristic of the ultrasonic ‘beam’ can be compared to shotgun microphone technology. The longer the microphone, the lower the frequencies are that it can detect. In fact, if the listener is positioned next to or behind the AudioBeam, no sound will be audible at all.

In addition to the “Generation Zone” that the AudioBeam can create, the ‘beam’ of sound can be reflected off of a smooth surface and heard by the listener. This allows you to create the illusion that a sound is coming from that point of reflection. For example, a painting in a museum could be made to seem as if it is speaking to its audience to describe itself.

AudioBeam’s pin-point directivity and reflective properties bring a new and unique tool to sound design.
## Technical Data

### AudioBeam Master
- **Modulation**: wideband AM
- **Carrier frequency**: 40 kHz
- **Amplitude limiting**: limiter amplifier
- **Audio channels**: 1
- **Audio input**: balanced XLR-3F socket, contacts electrically isolated
- **Input sensitivity**: 6 dBm (1.55 V) or -14 dBm (150 mV)
- **Impedance**: 600 Ω
- **Sound pressure level**: 75 dB ± 5 dB
- **Audio output**: 1 x BNC, 50 Ω short-circuit-proof
- **Amplifier output**: approx. 90 W
- **Power supply**: switched mode power supply 110 – 240 V, 50 – 60 Hz max. 100 W
- **Dimensions**: 264 x 82 x 320 mm
- **Weight**: approx. 3.1 kg (6.8 lbs)

### Accessories
You can obtain the following accessories from your specialist dealer:

- **GZP 10**: Mounting plate for wall and ceiling mounting
- **GZG 1029**: Swivel joint for aligning the AudioBeam, to be used with a stand or the GZP 10 mounting plate. Includes thread adaptor from 1/4" to 3/8"
- **MZT 14**: Screw mounting for attaching flexible necks and swivel joints with 3/8" thread to tabletops
- **MZT 100**: Table stand for easy installation at table height
- **MZT 1019**: Mounting bar for two AudioBeam units with 3/8" internal thread
- **SEMS 3134**: Stand with 3/8" thread
- **UK mains cable**
- **European mains cable**
- **Thread adaptor**

### Directivity – AudioBeam polar patterns

![500 Hz](image1.png)
![1000 Hz](image2.png)
![5 kHz](image3.png)
![10 kHz](image4.png)