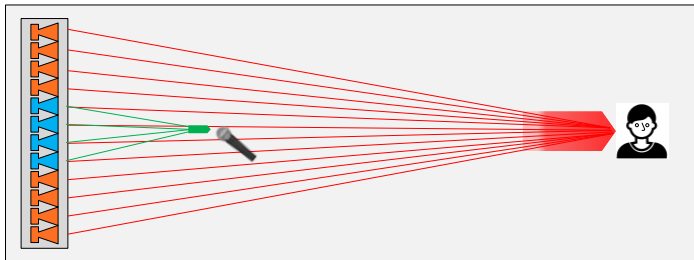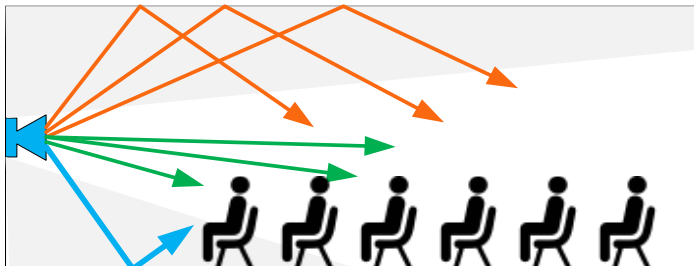## Portable line array

Concept of a Line Source

High-performance drivers with neodymium magnets are vertically arranged to form a line source, providing exceptional sound projection. This design prevents sound from dispersing vertically, reducing unwanted reflections and allowing the column speakers to deliver clear, focused sound to the target area. The compact driver units in the array also contribute to a broad horizontal sound spread while maintaining narrow vertical dispersion.
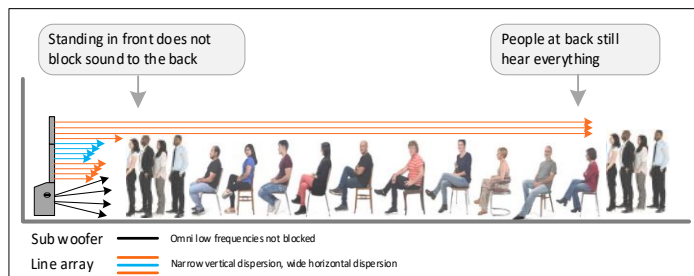
Anti Feedback benefit

A key advantage of this configuration is the significant reduction in feedback, especially in the mid to high frequencies, making it ideal for live music applications. Unlike point sources, line arrays function as line sources, meaning the sound level decreases by only 3dB for every doubling of distance. This unique characteristic allows line arrays to project sound much more effectively to the rear of a venue, ensuring consistent audio coverage throughout the space.

Concept of a point source:

A point source driver that sends sound equally in all directions. Imagine a single sound pulse that spreads out in all directions, like ripples in a pond. As the sound travels farther, it covers more area, becoming weaker. In fact, every time you double the distance from the source, the sound level drops by about 6 decibels. This is known as the inverse square law. The disadvantage is the sound can create reflections off walls ceilings and floors creating unwanted reverberation and delays

Gig Mate Portable speaker

The dB Parameter portable speakers feature 24 small speakers arranged in a line source configuration, delivering clear and focused sound that reaches the audience from the front to the back of the room. Thanks to this setup, the sound is not obstructed by people standing in front of the array, as shown in the diagram. In addition to controlled vertical dispersion, the array also offers a wide horizontal spread, ensuring even sound distribution across a large area.

Standing in front does not block sound to the back

People at back still hear everything

Sub woofer —— Omni low frequencies not blocked

Line array —— Narrow vertical dispersion, wide horizontal dispersion