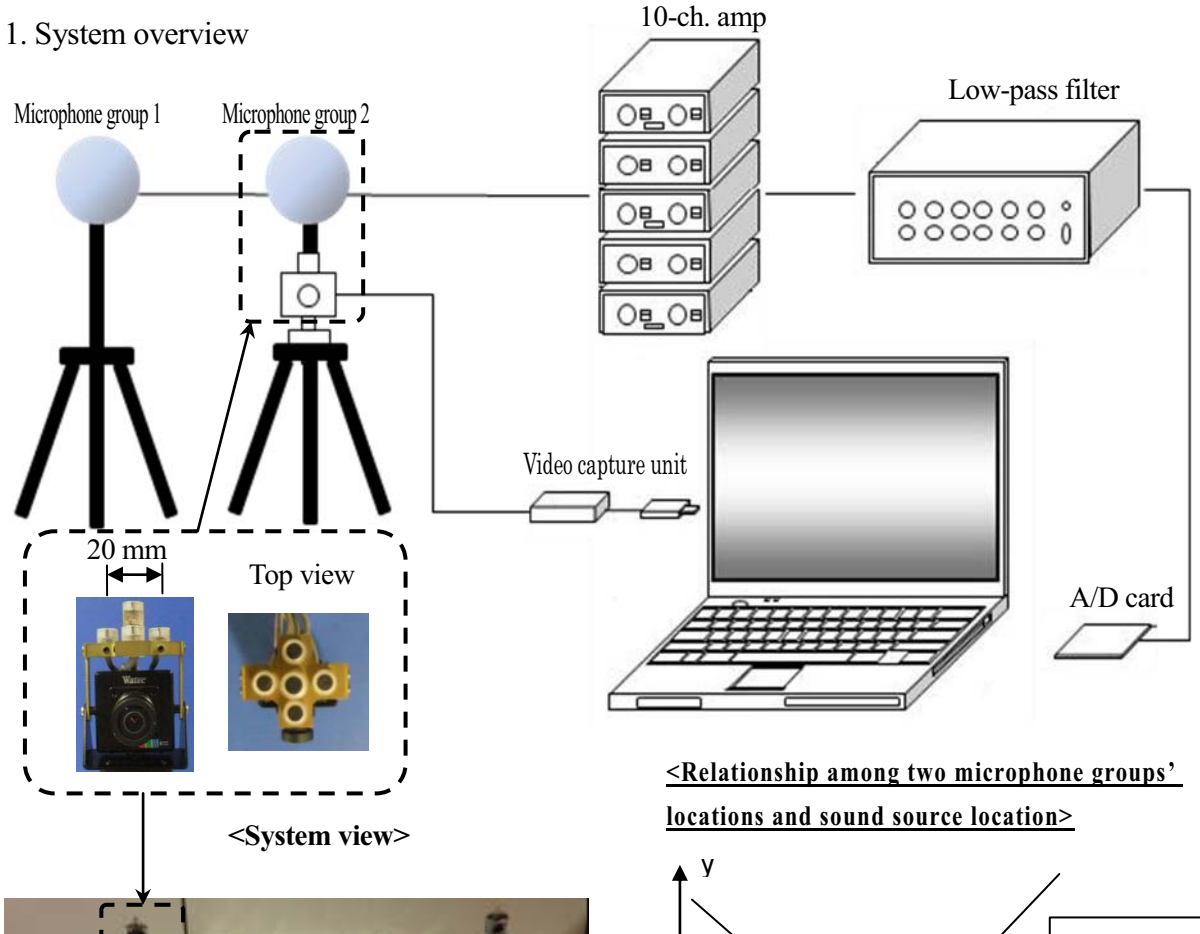
Attachment

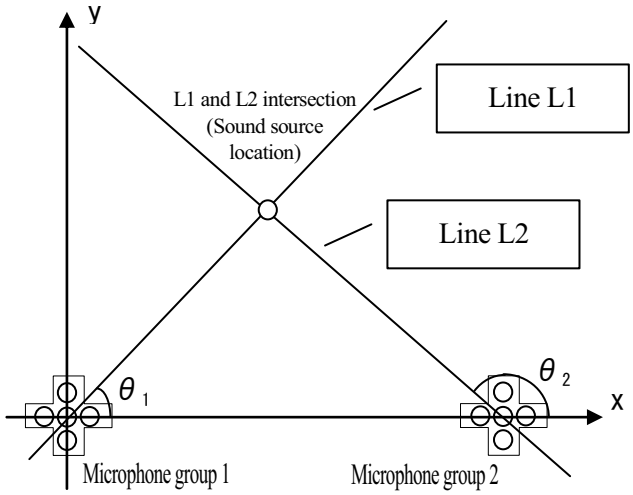
Overview of KYORImo Sound Camera

1. System overview



<System view>

<Relationship among two microphone groups' locations and sound source location>



<Explanation of component devices>

Device name	Application
Small CCD camera	Records digital images of sound source objects and background
10-ch. Amp	Amplifies the analog signal from each microphone
Microphone groups	Each group is an array of five microphones, arranged like a plus sign (+), which picks up the phase difference of sounds reaching each microphone.
Low-pass filter	Isolates signals above a set frequency and only allows frequencies below that to pass.
Video capture unit	Converts images from the small camera to digital data and sends it as image data to a computer.
A/D card	Converts sound analog signals to digital signals.

2. Measurement results screen

KYORImo sound camera measurement results

Earlier sound camera measurement results

If there are sounds of different frequencies from the same direction, measurements from the earlier sound camera are shown overlapping as on the right. This made it impossible to determine the frequency of the sound source objects in front and back.

Because the new system can display the horizontal projection distance from the measuring point to the sound source, it makes it easy to determine that a high-frequency sound is coming from the front (about 10 m) and a low-frequency sound from the rear (about 40 m).