

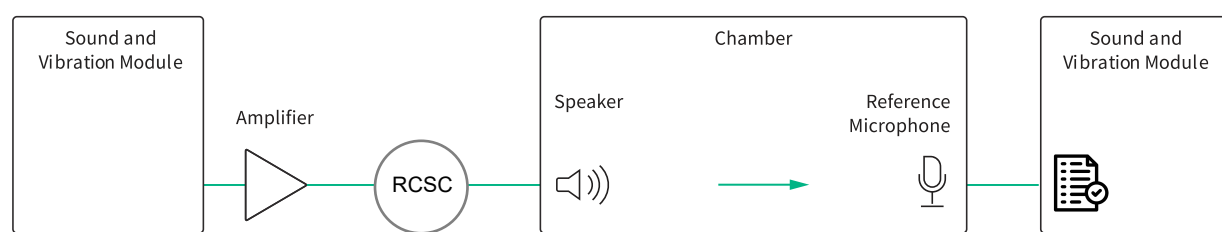
Standard Audio and Acoustics Test

Work Instruction

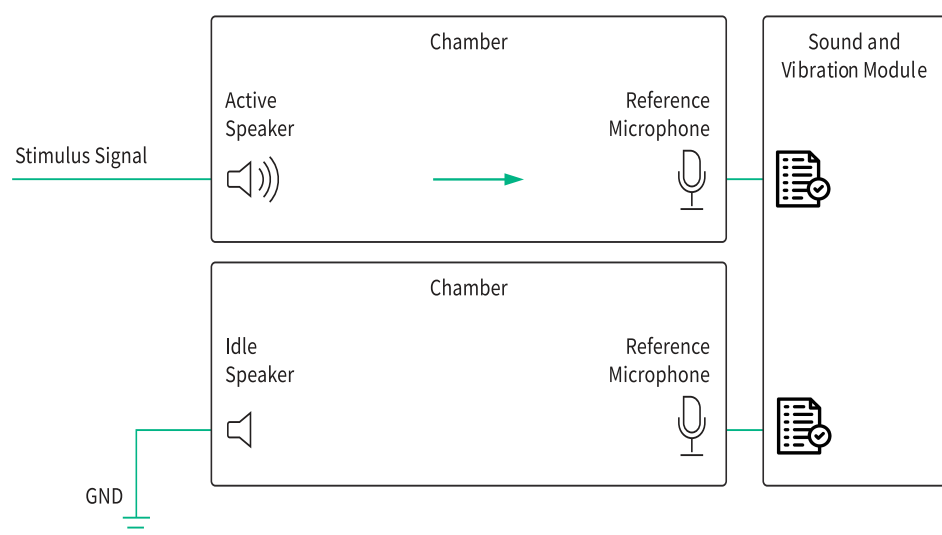
A sound test system reference a high-precision reference microphone to guarantee that the performance of a speaker rather than the reference microphone is measured. For better measurement results, set up the hardware and position the speaker and reference microphone.

Setup for a Speaker Test (with/without LYDEG RCSC modules)

The following figure shows a typical hardware setup for a speaker test.



The following figure shows the hardware setup for a speaker crosstalk test.



A speaker test system usually consists of the following components:

- **Sound and vibration module** — Sends stimulus signals to the speaker, receives and analyzes the microphone signals.
- **Chamber** — Provides an environment for accurate and repetitive measurements. The chamber is covered by acoustic absorbent materials from the inside to prevent reflections and reduce the impacts of external noises.
- **Reference microphone**—Captures acoustic signals from the speaker and converts them to analog or digital signals.

Positioning of Speaker and Reference Microphone

For research and development design tests, the distance between the reference microphone and speaker to be 0.5 m or an integral number of meters. The distance between the reference microphone and speaker at 1 m or more to simulate the human ears' experience in research and development design tests.