

R-Cabin is a small reverberation chamber which can be used to measure the sound absorption of materials for automotive industries.

R-Cabin FEATURES

- Appropriate for measurement of sound absorption characteristics of small and irregular samples, such as car seat, roof panel, carpet and etc.
- The size of the tested sample can be up to 3 square meters
- Frequency range: 400~10000Hz

APPLICATIONS

- Designing and optimization of the inner-car decoration acoustic system.
- Testing of the sound absorption coefficients of the inner-car items.
- Quality Control of the tested items
- R&D of new materials and new items.

R-Cabin small reverberation chamber uses steel panes in its structure. The sound absorption quantity of the empty cabin is small to ensure the accuracy of the testing of the Sound Absorption Coefficients of the samples. R-Cabin has exceptional sound insulation characters so that the outer noises have no effects on the testing.

The bottom of R-Cabin is designed to be vibration-resistant. There are four wheels fixed to the cabin for easy movement. There are two omni-directional loudspeakers on the upper and base corners in the cabin individually as the sound sources. There are four microphones to make reverberation time measurements.

The System Consists of

- R-Cabin
- 4-Channel Data Acquisition and sound generator instrument MC3242 or MC3642
- 4 sets of microphones MPA 231
- 2 sets of OS002 sound source
- Audio Amplifier SWA-100
- VA-Lab software
- Standard samples for checking the measurement



Measurement System

R-Cabin is equipped with a complete set of measurement system. The system emits pink noise to drive the two sound sources in the cabin and receives the signals from the four microphones. The reverberation time from the four channels is calculated automatically. The whole calculation is controlled by the computer for easy the operation.

Together with the R-Cabin, BSWA also provides standard testing samples. With the certified results, the customers can use the standard samples for reference measurements.

SPECIFICATIONS

Small Reverberation Chamber R-Cabin	
Parameter to be tested	Sound Absorption Coefficients, Reverberation Time
Testing Channel #	4
Noise Generator Channel #	2
Frequency Range	400 Hz ~ 10000 Hz
Max. Sample Size	2.3 x 1.7 m
Inner Size	2.6(Length) x 1.9(Width) x 1.95 m (Height)
Door Size	0.8 x 1.3 m
Weight	4000 Kg