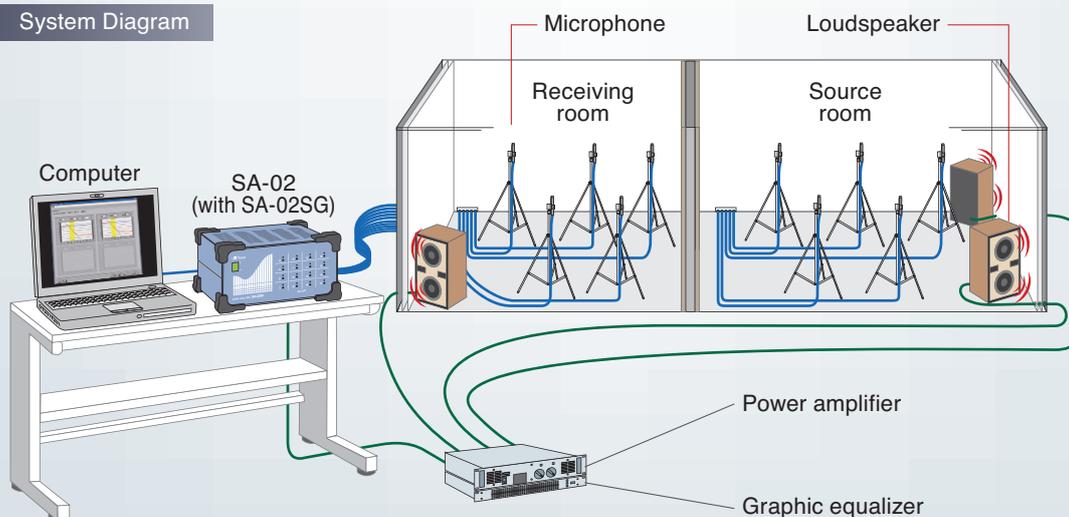


Architectural Acoustics Measurement System

The architectural acoustics measurement system is suitable for evaluating the residential quality of buildings. It is designed for sound insulation measurement of buildings and building materials based on ISO specifications, and allows measurement of sound reduction index, reverberation time, level difference between rooms, floor impact sound, attenuation, and sound absorption.

The system configuration consists of 10 microphones and the multi-channel signal analyzer SA-02. The capability for simultaneous measurement in two rooms (source room and receiving room) greatly shortens the time required for operation. The noise signal is generated by the optional Signal Output Unit SA-02SG installed in the SA-02. Measured data can be compiled using a computer connected to the Multi-Channel Signal Analyzer SA-02 and saved as CSV files. This makes it easy to perform secondary processing of measurement results in spreadsheet software such as Excel.

System Diagram



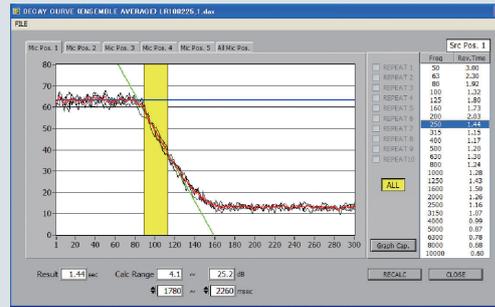
Equipment configuration

Product	Model	Quantity
Multi-Channel Signal Analyzer	SA-02M (12ch)	1
Signal Output Unit	SA-02SG	1
Computer for SA-02		1
Airborne Noise/Floor Impact Noise Insulation Measurement Software	AS-20PE5	1
Power amplifier		1
Loudspeaker		1 to 3
Graphic equalizer		1
Microphone/Preamplifier	UC-52/53A/57/59+NH-22A, UC-52T/57T/59T	1 to 10
BNC-BNC coaxial cable	EC-90 series	1 to 10
Microphone stand/Microphone mounting kit		1 to 10

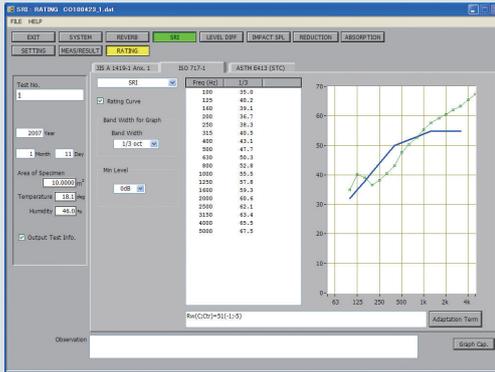
Measurement result examples



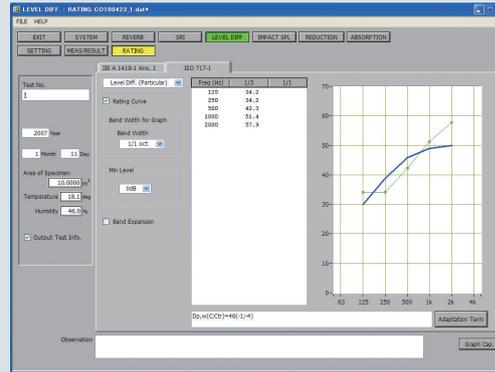
Reverberation time data screen



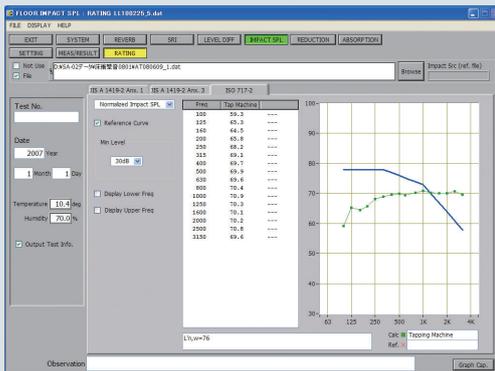
Decay curve screen



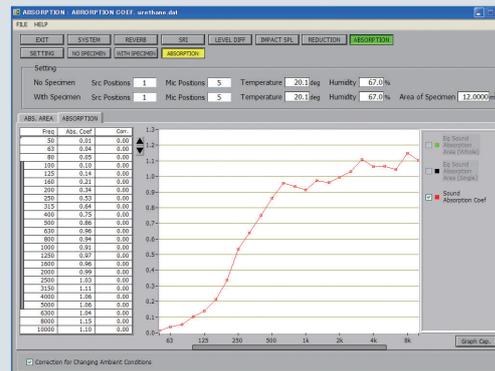
Sound reduction index rating screen



Level difference rating screen



Floor impact sound rating screen



Sound absorption data screen

Application examples

Architectural acoustics measurements by general contractors and construction companies, architectural acoustics measurements by educational institutions

Applicable standards, reference material

- ISO 354 Acoustics - Measurement of sound absorption in a reverberation room
- ISO 140-1 Acoustics - Measurement of sound insulation in buildings and of building elements - Part 1: Requirements for laboratory test facilities with suppressed flanking transmission
- ISO 140-3 Acoustics - Measurement of sound insulation in buildings and of building elements - Part 3: Laboratory measurements of airborne sound insulation of building elements
- ISO 140-4 Acoustics - Measurement of sound insulation in buildings and of building elements - Part 4: Field measurements of airborne sound insulation between rooms
- ISO 140-7 Acoustics - Measurement of sound insulation in buildings and of building elements - Part 7: Field measurements of impact sound insulation of floors
- ISO 717-1 Acoustics - Rating of sound insulation in buildings and of building elements - Part 1: Airborne sound insulation
- ISO 717-2 Acoustics - Rating of sound insulation in buildings and of building elements - Part 2: Impact sound insulation
- ISO 140-8 Acoustics - Measurement of sound insulation in buildings and of building elements - Part 8: Laboratory measurements

of the reduction of transmitted impact noise by floor coverings on a heavyweight standard floor
 RION CO., Ltd. is recognized by the JCSS which uses ISO/IEC 17025 (JIS Q 17025) as an accreditation standard and bases its accreditation scheme on ISO/IEC 17011. JCSS is operated by the accreditation body (IA Japan) which is a signatory to the Asia Pacific Laboratory Accreditation Cooperation (APLAC) as well as the International Laboratory Accreditation Cooperation (ILAC). The Quality Assurance Section of RION CO., Ltd. is an international MRA compliant JCSS operator with the accreditation number JCSS 0197.



JCSS
 JCSS 0197



ISO 14001 RION CO., LTD.
 ISO 9001 RION CO., LTD.

* Specifications subject to change without notice.

Distributed by:



3-20-41, Higashimotomachi, Kokubunji, Tokyo 185-8533, Japan
 Tel: +81-42-359-7888 Fax: +81-42-359-7442