RION

Product and measurement solutions
For home appliance manufacturing industry

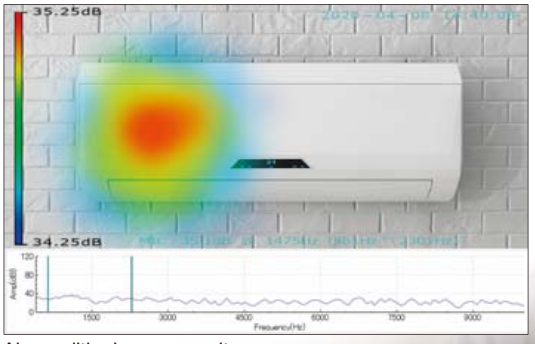
Sound source identification

【Sound source visualization system using beam forming method】

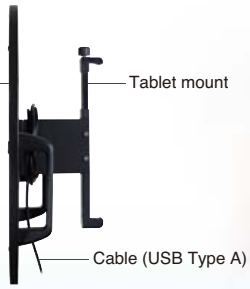
- Realizes a compact and affordable system by comprising a tablet computer and detection array
  (Power is supplied from the tablet computer. No separate power source is required.)
- Supports real-time display of FFT analysis results and narrowing down target sound sources by frequency band selection based on analysis results.
- Displays of sound pressure level and FFT analysis results for a specific location.
- Supports detection of transient noise sources through high speed mode, averaging function, and trigger detection function.
- Supports video capture and store during measurement (automatic recording of sound events possible, including sound signal)

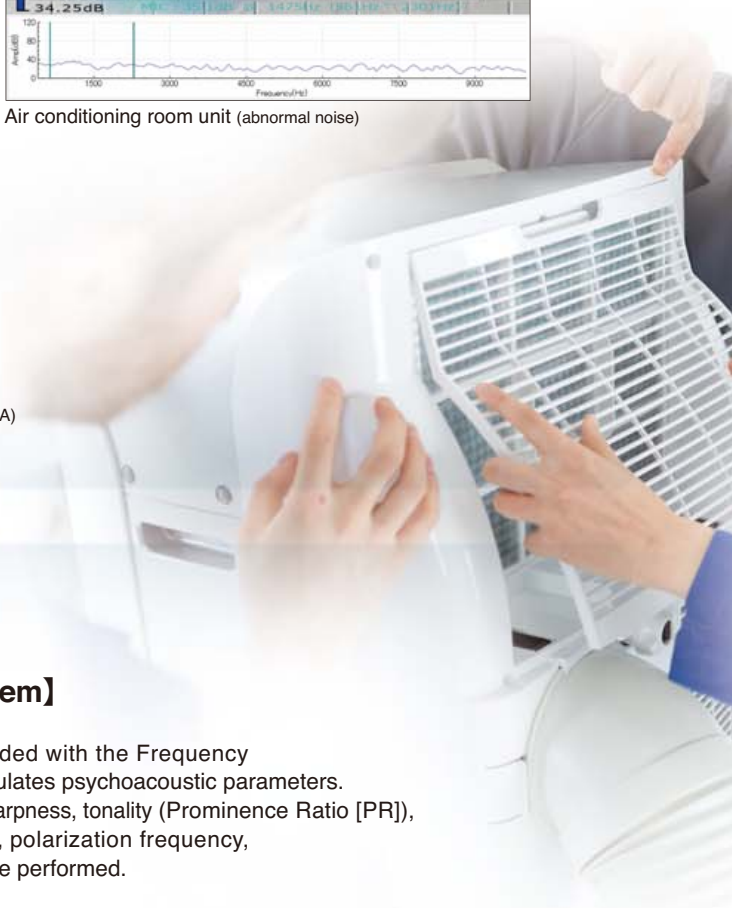
Application examples

Identifying abnormal noise in air conditioners etc.



Air conditioning room unit (abnormal noise)





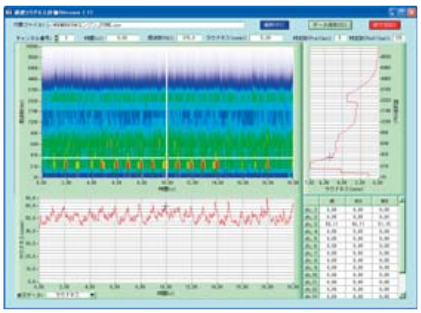
Psychoacoustic evaluation

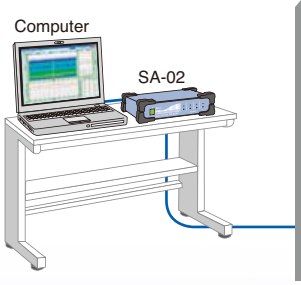
【Sound quality evaluation measurement system】

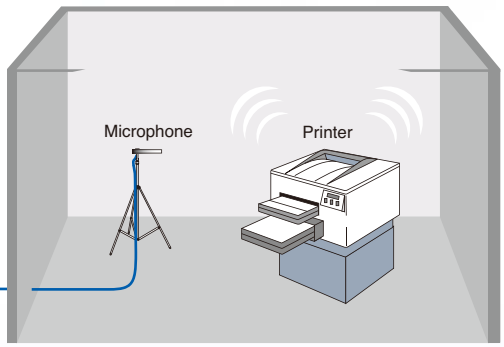
- Imports measurement data files such as WAVE data recorded with the Frequency Analyzer SA-02 or Data Recorder DA-21 and so on, and calculates psychoacoustic parameters.
- Analysis of steady-state loudness (according to ISO 5328B), sharpness, tonality (Prominence Ratio [PR]), (Tone to Noise Ratio [TNR]), intensity fluctuation, roughness, polarization frequency, transient loudness (according to DIN 45631/A1), etc. can be performed.

Application examples

Noise reduction measures for air conditioners etc.



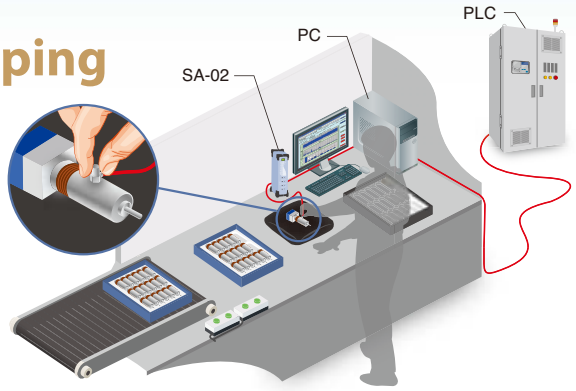




Line inspection before shipping

【Sound and vibration evaluation system】

**The noise / vibration evaluation system is suitable for pass / fail evaluation of noise, vibrations and other phenomena in production or inspection lines.
Various evaluation methods are available, such as learning type evaluation (MTA method), threshold evaluation, and real-time sound quality evaluation.**

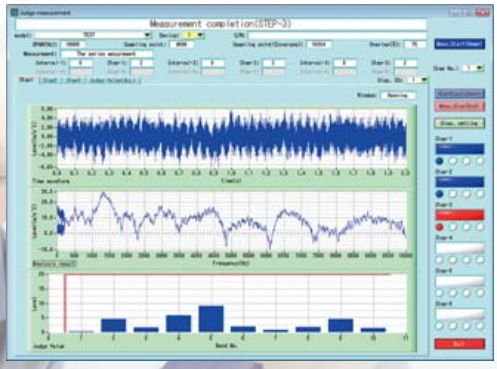


- Simultaneous multi-channel measurement
- Automatic measurement using DIO communication or PLC communication supported.
- Customization of the system that matches particular manufacturing lines and measurement procedures supported

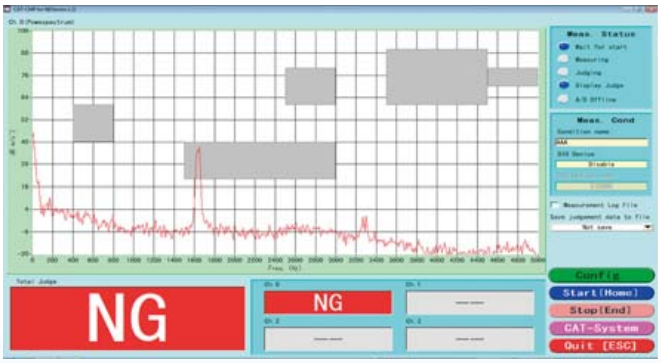
Application examples

Compressors, electric motors etc.

Self-learning Evaluation System



Threshold Evaluation System



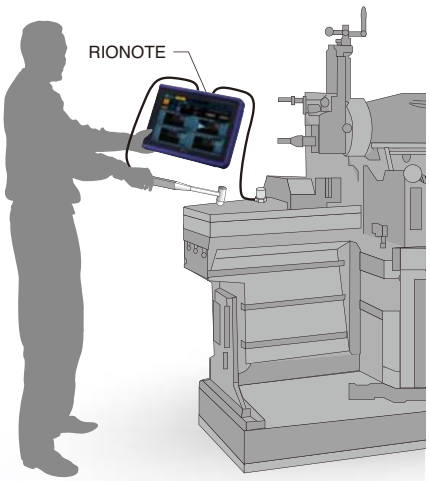
Natural frequency evaluation

【Transfer function measurement system】

**By connecting an impulse hammer and an accelerometer to the handheld multichannel measurement system RIONOTE, natural frequency and transfer function can be measured easily.
In addition to the transfer function, calculation of coherence function and cross spectrum are also available.**

Application examples

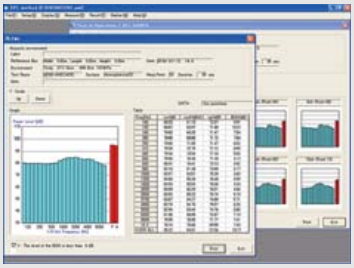
Vibration control for various products, vibration countermeasures etc.

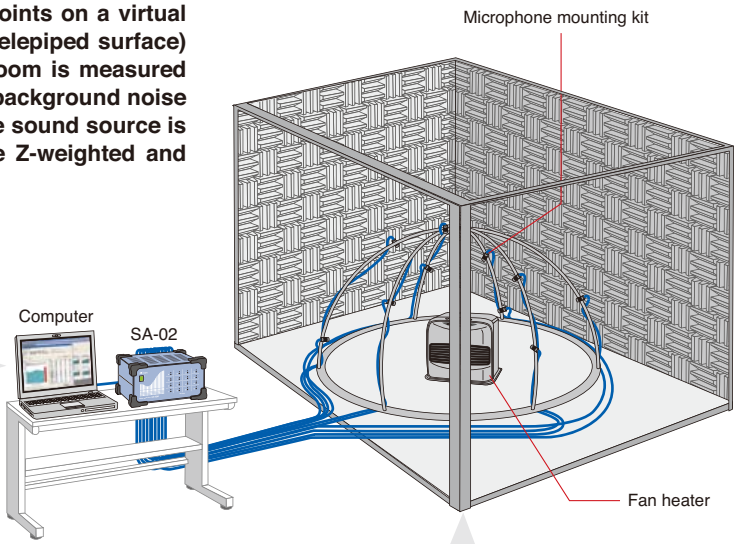


Acoustic power level measurement system

【Anechoic acoustic power level measurement system】

The sound pressure level at measurement points on a virtual measurement surface (hemispheric or parallelepiped surface) installed in an anechoic or hemi-anechoic room is measured using the acoustic power level method, and background noise correction for the sound pressure level of the sound source is performed. This allows determination of the Z-weighted and A-weighted acoustic power levels.





Application examples

Fan heater, printer, etc.

Applicable standards

ISO 3745
Acoustics - Determination of sound power levels of noise sources using sound pressure - Precision methods for anechoic and hemi-anechoic rooms

ISO 3744
Acoustics - Determination of sound power levels and sound energy levels of noise sources using sound pressure - Engineering methods for an essentially free field over a reflecting plane

Anechoic chamber implementation example

Other product information

Other Products

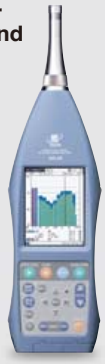
For applications ranging from environmental measurements to R & D

Sound Level Meter (class 2)
NL-42

Sound Level Meter (class 1)
NL-52

Simultaneous octave band and 1/3 octave band analysis

Sound level meter and 1/3 octave band real-time analyzer
NA-28



On-site measurement calibrator

Sound Calibrator
NC-75

Distributed by:

RION CO., LTD.
http://rion-sv.com/

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

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