

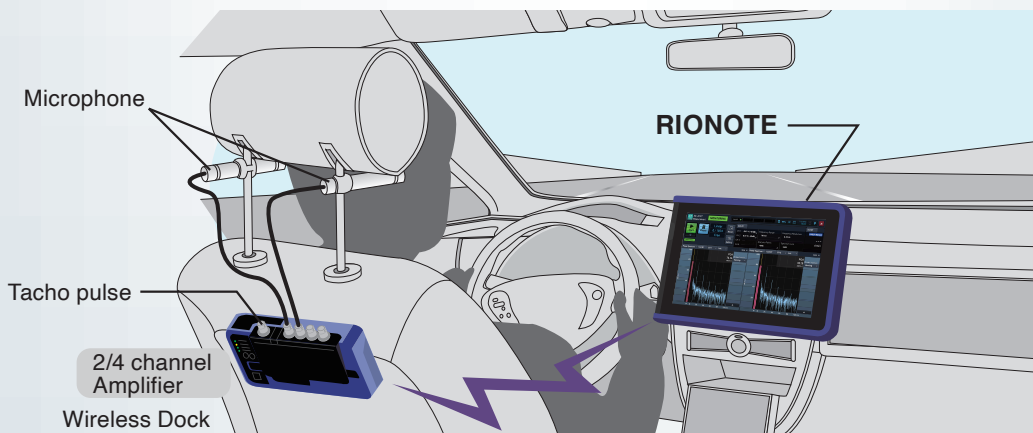
Sound/Vibration vs. Rotation Speed Measurement System

Besides its sound and vibration connections, the RIONOTE Multifunction Measurement System is also equipped with a tacho pulse input which makes it possible to measure and analyze noise and vibrations linked to rotation speed.

The illustration below shows a system with two microphones mounted at the ear position of the driver of a vehicle, intended to analyze sound patterns during acceleration. The tacho pulse input can be used in conjunction with such a setup. In order to eliminate the need for extended cabling, the microphone signals are transmitted by the Wireless Dock SA-A1WD to the RIONOTE unit for processing. The wireless capability allows the RIONOTE to be placed either inside or outside the vehicle.

Up to four RIONOTE units can be connected wirelessly to the SA-A1WD, making it possible to perform sound or vibration measurement and analysis in up to 16 channels (4 channels x 4 units).

System Diagram



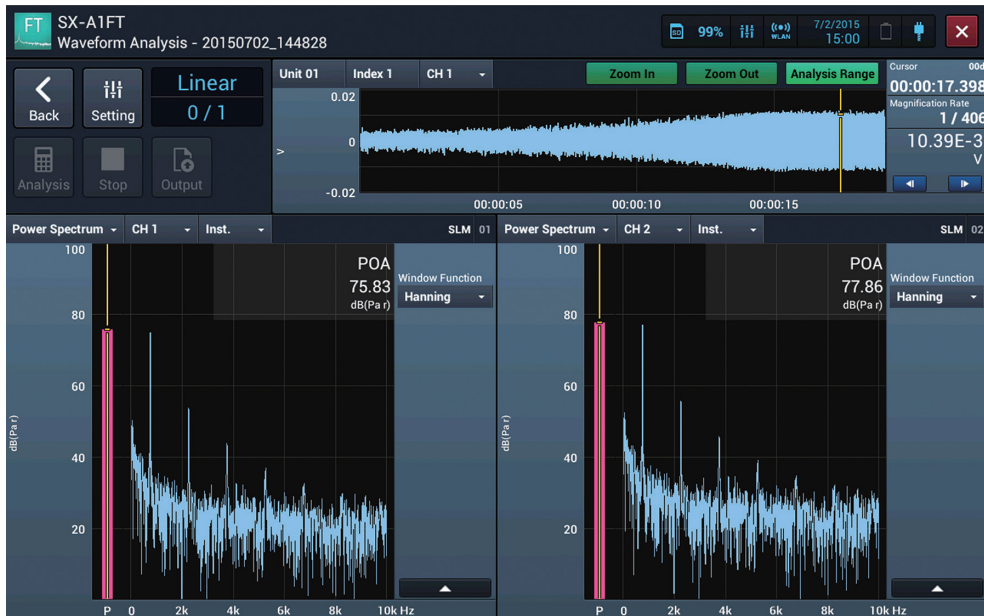
Equipment configuration

Product	Model
Multi-function Measuring System (2 channel/4 channel FFT package)	SA-A1FTB2/SA-A1FTB4
Wireless Dock	SA-A1WD
2 channel/4 channel Amplifier	SA-A1B2/SA-A1B4
SD card (512 MB/2 GB/32 GB)	MC-51SD1/20SD2/32SP3
1/2 inch electret condenser microphone	UC-59
Preamplifier	NH-22A
BNC-BNC coaxial cable	EC-90 series
1/2 inch microphone holder	UA-90
Piezoelectric accelerometer (integrated amplifier)	PV-91C/97I etc.
Accelerometer cable	VP-51 series
BNC adapter	VP-52C (Not required for charge output types)
Tacho sensor	

Measurement result examples



Sample screen for noise FFT analysis and rpm measurement



Sample screen for second-pass FFT analysis of acceleration noise

Application examples

- Simultaneous FFT analysis of sound/vibrations during vehicle acceleration and rpm measurement (wireless or wired)
- Simultaneous FFT analysis of sound/vibrations of rotational machinery and rpm measurement (wireless or wired)



JCSS
JCSS 0197

RIION CO., LTD. is recognized by the JCSS which uses ISO/IEC 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 Accreditation Cooperation (APAC) as well as the International Laboratory Accreditation Cooperation (ILAC). The Quality Assurance Section of RIION CO., LTD. is an international MRA compliant JCSS operator with the accreditation number JCSS 0197.



ISO 14001 RIION CO., LTD.
ISO 9001 RIION CO., LTD.

* Windows is a trademark of Microsoft Corporation. * Specifications subject to change without notice.

Distributed by:

RIION CO., LTD.
<https://rion-sv.com/>

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