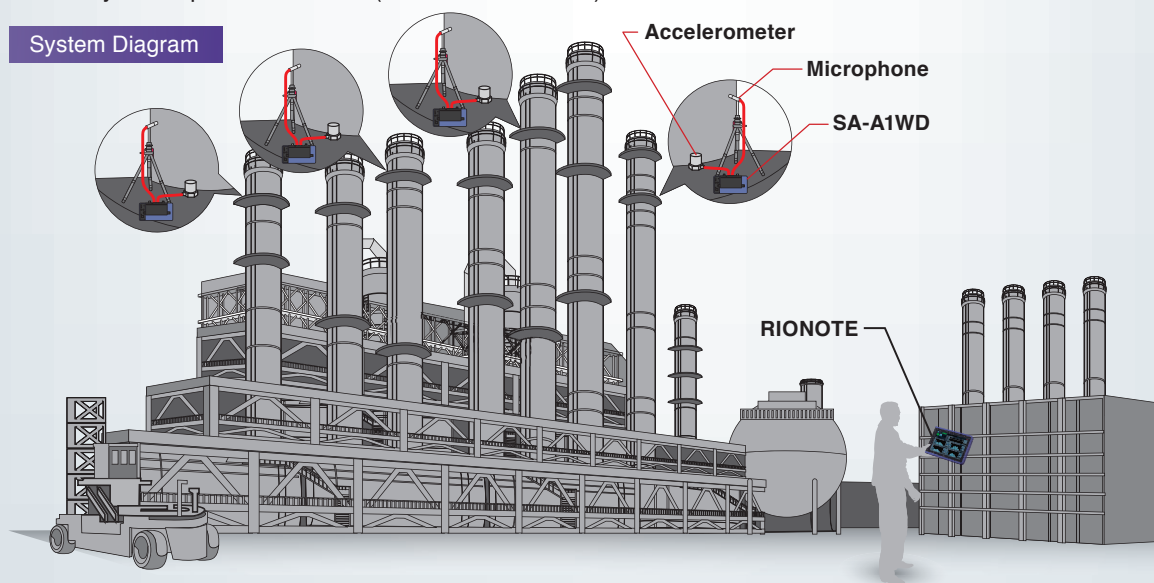


Measurement System With Simplified Installation

Using the RIONOTE Multifunction Measurement System together with the Wireless Dock SA-A1WD can facilitate installation and deployment at hazardous sites such as high-up locations in plants, factories, on bridges or roads etc. The wireless connection principle not only minimizes the need for cabling runs from sensors, it also improves safety during installation and reduces time and manpower requirements as well as the use of materials including cable conduits. Furthermore, the range of possible measurement locations expands, as wireless connection can enable setups that earlier were impossible due to cable placement or wiring restrictions and similar.

The illustration below shows the concept of a remote measurement system at a plant where microphones and accelerometers along with SA-A1WD units are located at multiple high-up locations. Because measurement data are transmitted wirelessly, extension cables are not required and the system can be kept simple and easy to manage. While being transmitted wirelessly, the measurement data are also saved in the amplifier unit of the wireless dock, to prevent data loss in case of an interruption of the radio connection during measurement. When the measurement is completed, the measurement data in the amplifier unit are downloaded to the RIONOTE. Up to four SA-A1WD units can be connected wirelessly to the RIONOTE, 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 octave package)	SA-A1FTRTB2/ SA-A1FTRTB4
Multi-function Measuring System (2 channel/4 channel FFT package)	SA-A1FTB2/ SA-A1FTB4
Multi-function Measuring System (2 channel/4 channel octave package)	SA-A1RTB2/ SA-A1RTB4
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

*Required for RIONOTE main unit and each amplifier unit (SA-A1B2/SA-A1B4)

Product	Model
1/2 inch electret condenser microphone	UC-59
Preamplifier	NH-22A
BNC-BNC coaxial cable	EC-90 series
Piezoelectric Accelerometer (With integrated amplifier)	PV-91C/91CH/97I/57I etc.
Accelerometer cable	VP-51 series
BNC adapter	VP-52C
Sound Level Meter	NL-42/52/62
Vibration Level Meter	VM-55
BNC-mini plug Cable	CC-24

Measurement screen examples (Example for wireless measurement of sound pressure level and vibrations at two locations)



Octave band analysis sample screen



FFT analysis sample screen



Waveform recording sample screen

Application examples

- Installation and sound/vibration measurement at hazardous locations
- Sound/vibration measurements at locations where conventional wired systems or cable runs are not feasible



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