# ADVANTEST®

Wireless Data Logger
AirLogger™

Air Logger™

Introduction

People in many Industries around the world including the automotive industry are analyzing lots of data for validation and evaluation. The task is very challenging for the following reasons;

- Cannot measure moving objects directly
- Requires a lot of preparation in order to make the measurement
- Long cables (More than 10m) and complex routing
- More than 100 cables and many connections

AirLogger™ solves these problems and allows the engineers to spend their valuable time on more critical matters. AirLogger™ sends measurement data using wireless communication and can be attached to moving objects without any restrictions.
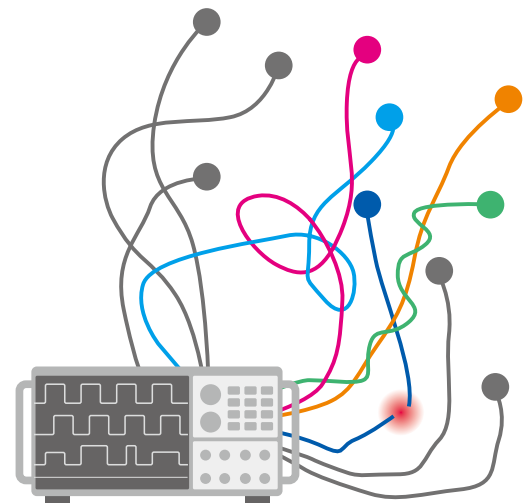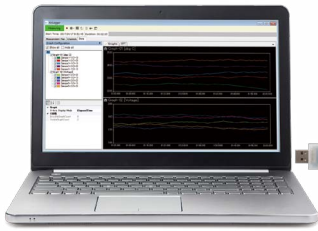
What is AirLogger™ ?

AirLogger™ is a data logger using a wireless sensor network. It sends data values from several measurement points to a PC using wireless communication.

PC Communication Unit

Measurement Unit

Sensor
ex. Thermocouple

Communication Part
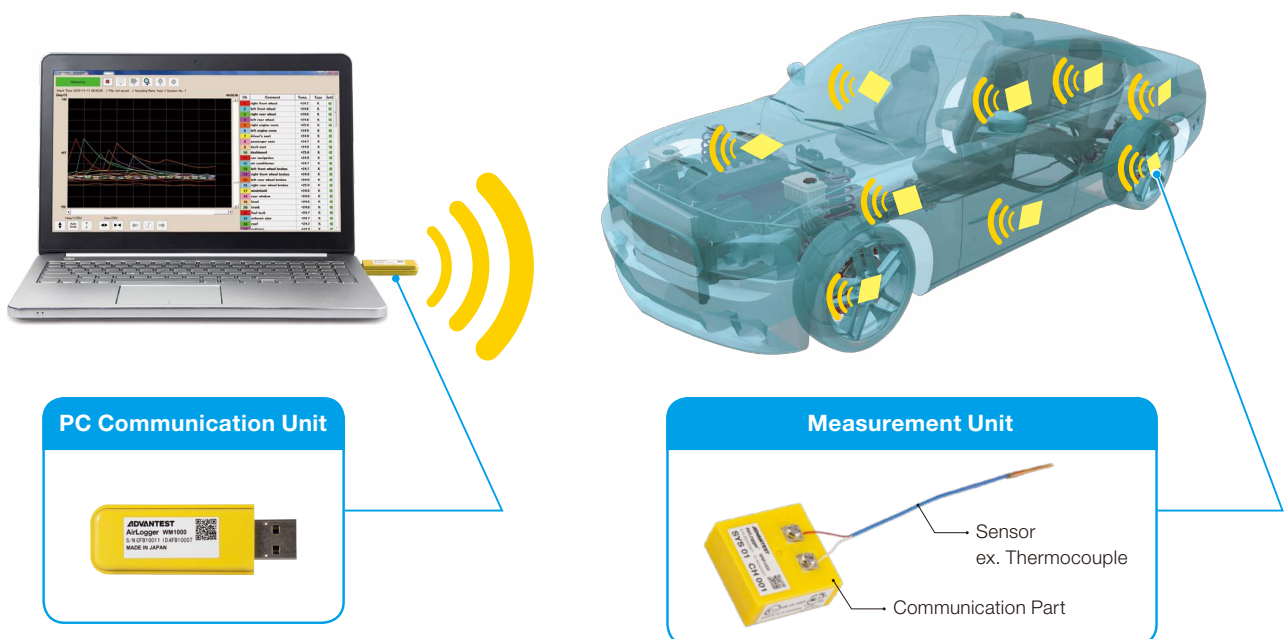
Because it is wireless, it has the benefit of taking measurements from moving and rotating objects. It also eliminates the need for running your cabling through walls and barriers. This will improve your measurement quality and increase your R&D efficiency.

ADVANTEST CORPORATION

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AirLogger™ WM2000

Temperature | **Strain** | **Voltage** | **Humidity** | **Pressure** | **Wind Speed** | **Illumination**

Real-time Simultaneous Measurement at a Maximum of 700 points

One PC Communication Unit can be connected to as many as 100 measurement units. While measuring wireless, temperature/voltage can be measured at a maximum of 700 points simultaneously in real time. Measurement points can be dispersed across a broad area.

Maximum 100 Units

Fully Wireless Design Dramatically Boosts Efficiency

The AirLogger™'s measurement unit, which incorporates a data processor, wirelessly sends various measurements data to a PC for display and saving.
The AirLogger™ dramatically boosts efficiency by freeing users from the constraints of working with data cables.

Measures Temperatures, Voltages and Strain of Rotating / Moving Objects

The AirLogger™ without cables enables easy measurement for formerly difficult-to-measure targets such as revolving tires, other moving objects and enclosed spaces.

Compact Body, No AC Power Source Required

The sensor unit uses an alkaline battery for its power supply, and the PC communication unit charges via USB connection to a PC. The flexibility to measurement temperatures in environments with no power outlets enables diverse applications.

Software switch function

The WM2000 measurement unit has no power switch and can be turned on / off by PC operation.

Internal memory protects measurement data

When radio wave condition is bad or data transfer is unstable, the internal memory can store measurement data and they can be retrieved and displayed after measurement.

Simultaneous measurement of different types of measurement units is possible

One PC Communication Unit can receive measurement data in real time from different types of measurement units in arbitrary combination.

Expansion of measurement environment

The measurement area will be extended to diverse environments such as area near water or high temperature area using water proof attachment or heat resistance case.

● **Temperature/Voltage Measurement Unit**
Contains two functions, temperature and voltage
Temperature and voltage can be measured on each channel so that various types of environment can be measured with flexible settings.

Wider targets of measurement with voltage-output type sensors
The temperature/voltage measurement unit can measure various kinds of parameters such as humidity, pressure, wind speed, or illumination by attaching voltage-output type sensors.

● **Strain Measurement Unit**
Stores an amplifier and a bridge in a compact body
Equipped in a compact body, this sensor includes a high-performance amplifier and a high-precision bridge using the high-density mounting technology. It contributes to space saving at installation sites and improves efficiency of operation. Measurement range: ±20000 μ strain

Applicable for 2 active gauges
Equipped with 4 connection terminals, this unit can measure with 1 active gauge or 2 active gauges methods. This realizes higher precision measurements in environments with temperature fluctuations.

PC Communication Unit

PC Communication Unit
WM2000ZA

Outer dimensions	50 x 23.5 x 8.3 (mm)
Weight	11g
Power supply	From PC mainframe
Connection to PC	USB interface
Communication Frequency	2.4 GHz wireless communication

Install PC Environment	Specifications	
	CPU: Intel Celeron processor 1.6 GHz or higher	
	Memory: 2 GB (Including memory used by the OS)	
	Remaining area of storage: 10 MB or less (program size)	
	Display: Minimum size 8 inch, Minimum XGA (1025 x 768)	
	OS	Windows7, Window8 (8.1), Windows 10
	Interface	USB 2.0 compliant

Measurement Unit

	2 ch Temperature/Voltage Measurement Unit **WM2000TA**	7 ch Temperature/Voltage Measurement Unit **WM2000TB**	Strain Measurement Unit **WM2000SA**
Measurement Target	Temperature		Strain
	Voltage		
Measurement ch/unit	2ch	7ch	1ch
Measurement Range	Temperature: -200℃ to 1300℃ (Type K)		±20000 μ strain
	Voltage: ±12 V		
Sampling Frequency	Max 10 Hz		Max 10 Hz
Size (mm)	54.5 (W) x 45 (D) x 17.5 (H)	60.5 (W) x 49 (D) x 17.5 (H)	54.5 (W) x 45 (D) x 17.5 (H)
Number of Simultaneous Connection	Max 100 units		Max 100 units
Number of Simultaneous Measurement Channels	Max 200 ch	Max 700 ch	Max 100 ch
Sensor to Connect	Thermocouple Voltage output sensor (such as humidity, pressure, air speed, illumination)		Strain gauge (120Ω or 350Ω)

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