ADVANTEST CORPORATION

Wireless Data Logger **AirLogger**TM

ADVANTEST

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.



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.





AirLogger™ WM2000



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.

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^{*1,2,3} 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

PC Communication Unit

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.

Maximum 100 Units

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 highperformance 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: $\pm 20000 \ \mu$ 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.

- *1 As replacement of lithium batteries that it should be quoted separately.
- *2 For transporting only lithium batteries overseas, lithium batteries are subject to UN standards and should be packaged in accordance with UN packaging standards before transportation.
 *3 In case of overseas transportation of lithium batteries alone that need to be packaged as dangerous goods.

STREAMEST WINDOOLA	
Port Constant	

PC Communication Unit

Outer dimensions			50 x 23.5 x 8.3 (mm)			
Weight			11g			
Power supply			From PC mainframe			
Connection to PC			USB interface			
Communication Frequency		псу	2.4 GHz wireless communication			
Install PC Environment	Specificat CPU: Int Memory Remaint Display: OS	ions tel Celeroi r: 2 GB (In ing area o Minimum Windows USB 2 0	n processor 1.6 GHz or higher cluding memory used by the OS) f storage: 10 MB or less (program size) size 8 inch, Minimum XGA (1025 x 768) :10 32bit/64bit, Windows11 64bit compliant			

* Windows is registered trademarks of Microsoft Corporation in the U.S. and/or other countries.

Measurement Unit

	2 ch Temperature/Voltage Measurement Unit WM2000TA	7 ch Temperature/Voltage Measurement Unit WM2000TB	Strain Measurement Unit WM2000SA
Moasurement Target	Tempe	Strain	
Measurement larget	Volt		
Measurement ch/unit	2ch	7ch	1ch
Measurement Range	Temperature: -200°0	±20000 μ strain	
	Voltage		
Measurement interval (Frequency)	1		
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 30 units/Max 100 units*	Max 15 units/Max 100 units*	Max 25 units/Max 100 units*
Number of Simultaneous Measurement Channels	Max 60 ch/Max 200 ch*	Max 105 ch/Max 700 ch*	Max 30 ch/Max 100 ch*
Sensor to Connect	Thermo Voltage ou (such as humidity, pressu	Strain gauge (120 Ω or 350 Ω)	

* Sampling interval: less than 1 sec/1 sec or more