

BioAerosol Detection Device (BADD-10)

Going beyond traditional, cumbersome and limited swab testing methods, BADD-10 enables rapid and accurate microbial measurement with innovative technology. No longer rely on detecting residual surface microorganisms. Check the level of contamination of airborne microorganisms at a glance. BADD-10 guides you to a safe environment.

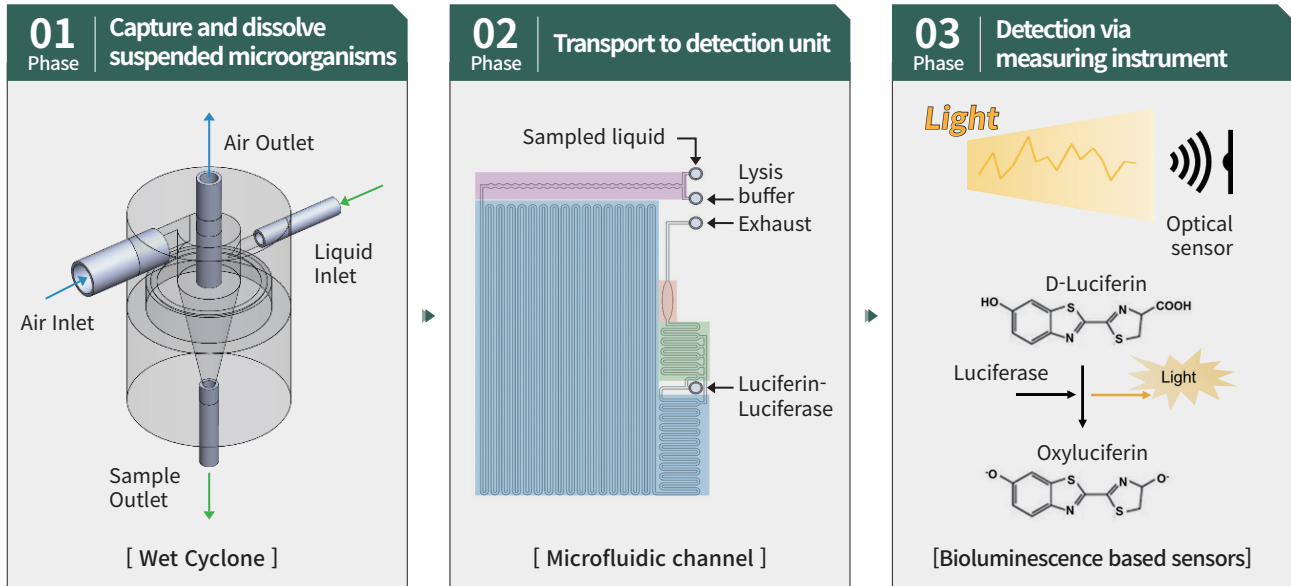


Opening a new horizon for microbial detection and contamination assessment!

- Displays Concentration Levels of Airborne Microorganisms
- Capable of Measuring Biological Particles (Bioaerosols) Distinguishable from Fine Dust
- Intuitive Observation of Changes in Microorganism Concentration Levels
- Reduced Microorganism Detection Time (2 hours)
- Provides API for Platform Integration
- Ensures Operational Convenience and Data Reliability

Measurement Principle

BADD-10 uses a wet cyclone method to sample air and dissolve the microorganisms captured in the air in a solvent. Microorganisms in the fluid react with the lysis buffer in the fluid chip to extract ATP. It then reacts with a luciferin-luciferase solution to produce a bioluminescence reaction, and the emitted light is measured to quantify the amount of suspended microorganisms in the sampled air.

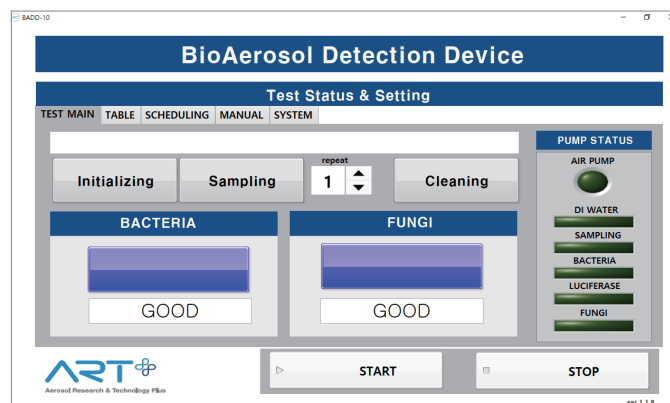


Features and Advantages

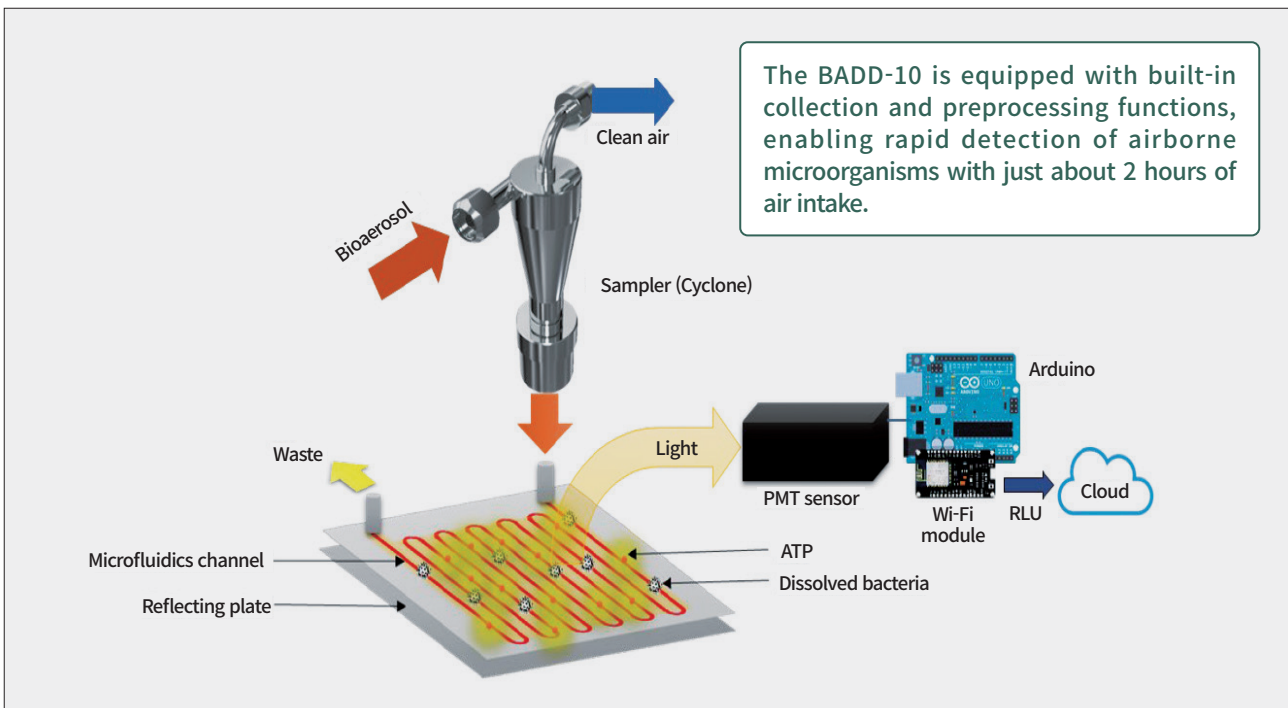
Paradigm Shift: From Surface-Attached Microorganism Measurement to Airborne Microorganism Detection

Traditionally, indoor microorganism measurements have been performed by lightly swabbing the surfaces where microorganisms are expected to be found, inserting the collected sample into a measuring device, and then confirming the presence or contamination level of microorganisms. However, this surface sampling method is often subject to multiple interference factors that may lead to inaccurate results. This is because surfaces contain not only microorganisms but also various elements (such as cleaning agents or chemical residues) that can affect measurement outcomes.

BADD-10 represents a shift away from the traditional approach of measuring only surface microorganisms, enabling the detection of microorganisms present in the air as well as the measurement of their concentration levels. The COVID-19 pandemic has clearly demonstrated that airborne microorganisms can cause infection and transmission through the respiratory system. It is now essential to have monitoring equipment capable of detecting airborne microorganisms in order to prevent the spread of infection before it occurs.



< BADD-10 Operating Software Program >



Rapid Response Through Real-Time Microorganism Detection

Traditionally, identifying the presence and concentration of airborne microorganisms requires air sampling followed by microbial culture, a process that typically takes 2–3 days. By the time results are obtained, they reflect past microbial distribution, making them unsuitable for timely countermeasures to prevent infection and transmission.

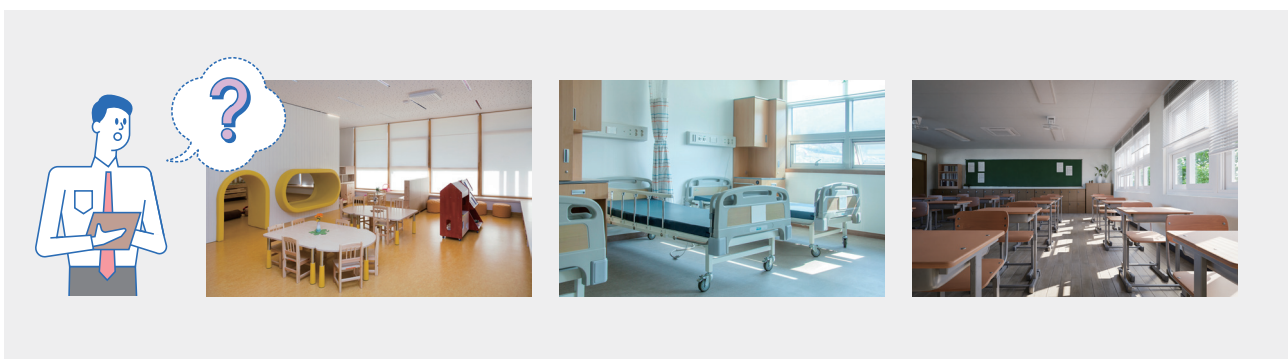
BADD-10 enables confirmation of airborne microorganism concentration levels within 2 hours, making it an essential device for rapid quarantine and infection control measures.

Unmanned Automation and Remote Monitoring Support

BADD-10 operates automatically from air sampling to microorganism concentration detection after sample input, enabling completely unmanned operation. In addition, it provides an API for remote data access, allowing multiple devices to be monitored across various locations and supporting the establishment of a platform-based control system.

With BADD-10, operation is simple regardless of the user's level of technical expertise.

What is the concentration level of microorganisms in the air around you today?



SPECIFICATIONS

Description	Specification	
Dimension	306 x 418 x 340 mm (WDH, O.D.) (Excluding Sample Probe)	
System Control	10.5" Touchable Monitor & Mini Computer, Exclusive Software	
Sampling	Air Pump	24 VDC On/Off Control
	Sampling Flow	13 L/min
	Cyclone	Wet cyclone method, mixture of sampling air & ultra pure water
	Probe	1/4" Stainless Steel Tube
Types of reagents	Ultrapure water, Bacteria Lysis Buffer, Luciferin-Luciferase	
Other	TCP/IP Communication Function, Wire/Wireless LAN, USB2.0 2EA	
Power Consumption	220 VAC 60 Hz, Max. 1 kW	

*The above specifications are subject to change without prior notice to improve the functionality and performance of the product.

APPLICATIONS

BADD-10 can be used in a variety of environments where viruses and micro-organism may pose a potential hazard.

- Biological research in laboratories
- Food poisoning risk management in food processing plants
- Preventing the spread of contaminated diseases on public transport
- Facilities for vulnerable/sensitive populations such as classrooms and nursing homes
- Epidemic surveys in public buildings
- Environment investigations in industrial work environments
- Pathogen surveillance and infection management in medical facilities
- Indoor air quality research
- Monitoring of Worker Safety Environments in Construction, Wastewater Treatment, and Agricultural Settings.

OTHER RELATED PRODUCT

ABG-1771A Bacteria Generator

- Generate live condition bacteria aerosol
- Control concentration and size of aerosol
- Generation concentration : $> 5 \times 10^4$ CFU/m³
- Flow : ≤ 50 L/min

Sales Distributor.