

**TIANLONG**  
**BIOLUM**



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**TIANLONG**  
**BIOLUM**



**Portable ATP  
Hygiene Monitoring  
System Biolum**

Your reliable hygiene safety guardian



Bring Technology to Life

# Biolum

Your reliable hygiene safety guardian

## FEATURES & BENEFITS

### Sensitive

Detect down to  $10^{-16}$  mol of ATP

### Highly Portable

within 300g with Battery,  
189×70×36mm

### Powerful Memory Capacity

255 test plans, 255 user IDs,  
2000 test program, 1000 results

### Low consumption

Using Li-ion battery that can work more than 8h continually

### Open Reagents

Compatible with swabs from other manufacturers

### Fast

Result in 10 sec for one test

### User Friendly

3.5" high resolution color screen, intuitive menus, less bottoms, simple to use

### Intuitive result

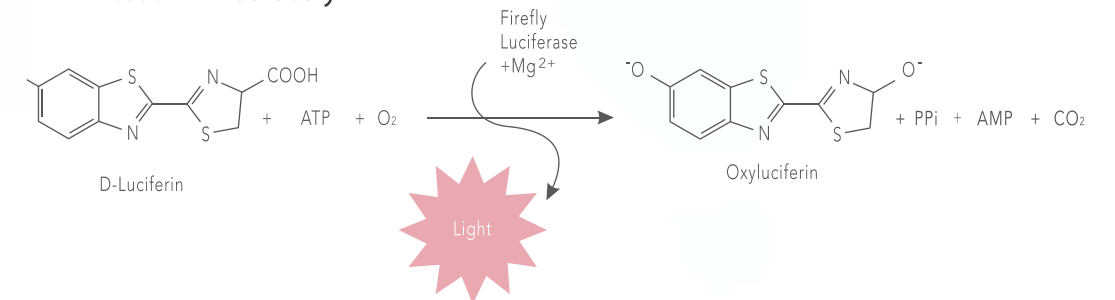
Pass, Caution, or Fail result symbols are intuitive for any user

### Template

Pre-configured templates including different industries and locations together with upper and lower limits can start your test immediately

### Connectivity

Connect PC via USB, connect printer or app in Android system mobile phone and pad through Bluetooth



Biolum Portable ATP Hygiene Monitoring System, a powerful tool for implementing and managing your hygiene monitoring program. Taking advantages of the progressive QuickSwarb surface test, the hygiene level of the tested surface will be evaluated in seconds, and the results can be visualized on screen. Featuring the state-of-art technology, the Biolum is a user-friendly, flexible, and accurate quality monitoring system. It has all the features to maximize its value to your business.

Adenosine tri-phosphate (ATP) is a molecule found only in and around living cells in like all animal, plant, bacteria and yeast, and as such it gives a direct measure of biological concentration and health. ATP is quantified by measuring the light produced through its reaction with the naturally-occurring firefly Luciferase using a Luminometer. The amount of light produced is directly proportional to the amount of living organisms present in the sample.



## Quickswab

ATP QuickSwab is simple to use, all-in-one and pen-sized sampling device, with the pre-moistened swab that offers extraordinary accuracy and precision for many industrial applications.

### SWABS FEATURE



- 1 Sampling & Reaction together, easy to use
- 2 Pre-moistened swab tip
- 3 Accurate, high reproducibility
- 4 10s for one test

### HOW IT WORKS

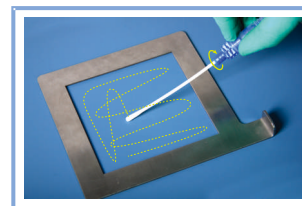
The whole measurement procedure is easy to learn and test data can either print by buletooth printer, or export through data export software on PC for your documentation,data export software is an easy-to-use data analysis software that comes free with every Biolum system.



1. Device Self-Checking



2. Checking the swab



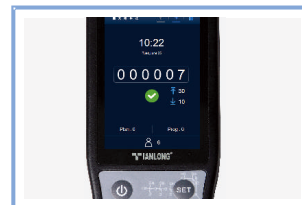
3. Sampling



4. Injection



5. Insertion



6. Measuring

## LiquSwab

LiquSwab is an easy to use ATP liquid test work with Biolum Hygiene monitoring system from Tainlong. The swab is available in two formats: Free and Total. LiquSwab Free measures dissolved ATP that is free in liquid(non-microbial ATP).LiquSwab Total measures both free ATP and microbial ATP(non-microbial and microbial ATP)in the liquid. The difference between Total and Free provides an indication of microbial contamination in the samples.

### Easy to operate

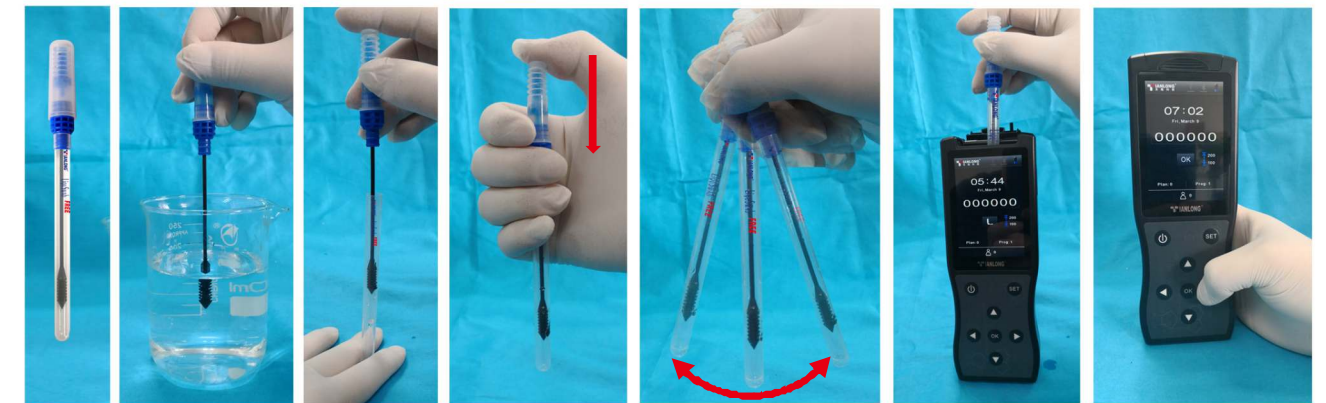
- 1
- 2 10s for one test
- 3 12 month self life at 2-8°C  
4 weeks self life at 21-25°C
- 4 Detects down to 10<sup>-16</sup>mol ATP

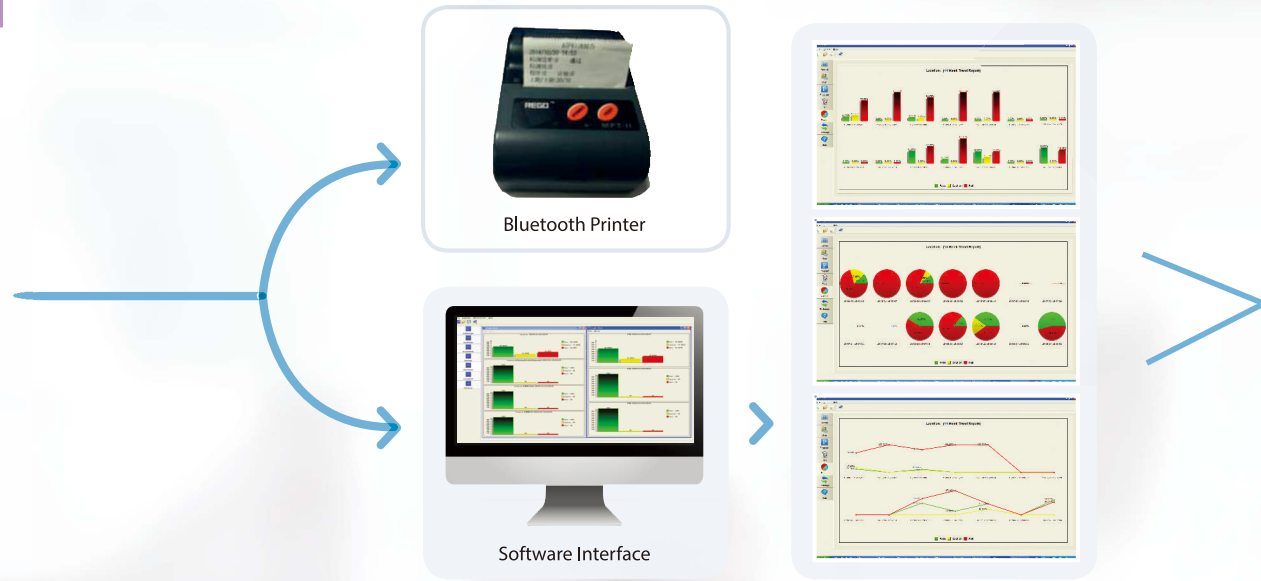


Free

Total

### HOW IT WORKS





## RESULT EXPORT

DviceID	UserID	Plan Name	Prog	Location	Surface	Result	RLU	Lower_ID	Upper_ID	Test Time	Test Date
99745	0	0	0			Pass	0	10	30	19:22:00	2014-4-24
99745	0	0	0			Pass	0	10	30	10:32:00	2014-4-24
99745	0	0	0			Pass	0	10	30	10:33:00	2014-4-24
99745	0	0	0			Pass	0	10	30	11:20:00	2014-4-24
99745	0	2	0			Fail	10976	10	30	11:21:00	2014-4-24
99745	0	2	0			Fail	10964	10	30	11:22:00	2014-4-24
99745	0	2	0			Fail	10961	10	30	11:23:00	2014-4-24

## APPLICATIONS



### Food Processors

- > Cleaning control the process of production and processing
- > Evaluating the disinfection of packaging
- > Testing the microbes of finished products and material
- > Monitoring the hygiene of processing environment



### Health Care

- > Objects superficial inspection of the hospital major department
- > Hand cleaning check of the medical staffs
- > Medical equipment cleanliness and disinfection inspection
- > Cleanliness testing of the hospital environment



### Food Service

- > Cleanliness control of the kitchen, dishes, operating carton and tools
- > Evaluating disinfection of dishes
- > Disinfection control of the airline catering dishes
- > Hygiene supervision for quality control department



### Environment protection

- > Evaluating biological pollution of the water and wastewater sample
- > Detecting the contaminating microorganisms of soil, activated sludge samples and so on.



### Other Industries

- > Daily health products manufacture
- > Quality supervision department
- > Hospitality industry hygiene management
- > The port supervision etc

## SPECIFICATIONS

ITEMS	PARAMETER
<b>Biolum</b>	
Dimensions	189 mm × 70 mm × 36 mm
Weight	≤300 g
Detection limit	10 <sup>-16</sup> moles ATP
Detection Deviation	5 % or ±5
Self-calibration at startup	15 s or 60 s
Real-time detection time	10 s/test
Memory Capacity	255 test plans, 255 user IDs, 2000 test program, 1000 results
Communication interface	USB, Bluetooth
Reproducibility	CV 8 % ~ 20 %
Correlation Coefficient	R <sup>2</sup> ≥ 0.99
Power Supply	Rechargeable battery
Running Time	continuously work for > 8 hrs, standby for > 600 hrs
Temperatures allowed during operation	5 ~ 40 °C
Relative humidity allowed during operation	<60 %
<b>Swabs</b>	
Swab storage	2 ~ 8 °C : 12 monthes
Swab compatible	Hygiena SystemSURE Plus, EnSURE
Swab packing specifications	20 pieces/package 100 pieces/box

## Ordering Information

Catalog No.	Description	Quantity
A010	Portable ATP Hygiene Monitoring System Biolum	1
A001	QuickSwab	20
A002	LiquSwab Total	20
A003	LiquSwab Free	20