

ADVANCED MECHATRONICS SOLUTION, INC



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UI-301A6

[CH-NUMBER] [REFLOW CHECKER]



UI-301A6V

[CH-NUMBER+VIBRATION] [REFLOW CHECKER]



UI-302

[REFLOW WIRELESS CHECKER]



Available in PbFree Wireless Reflow Checker



- · Measurement of max, 3 to 16 channels
- Simulation Measurement analysis
- Data Comparison
- Data converted to Excel files
 Supports multiple languages including Korean

General Information

Items	Details
Battery	Rechargeable, 3.6V
Operation Hours	Continuously for 15 hours (room temperature)
Operation / Storage Temperatures	0~300°C / 0~40°C
Dimension	283×60×23 / 283×97×23

Measurement

Items	Sensor	Measuring Scope	Error(s)
Temperature Measurement	K-type Thermocouple	0~400℃	±2℃
Sampling		0.3, 0.6, 1.2 and 2.4sec Above is also possible.	
Measurement Time		10Minutes	
Internal Storages		2	

Specification

Specification	Minimum Requirement
OS	Windows 95, 98, ME, 2000, XP, 7, 8, 10
Processor/Memory	Pentium2 and later / 64MB and more
HDD / CD-ROM	64MB and more / CD-ROM (Program Installation)
Video Card / Connection	1024×768, 16 bit and more / USB

- · Measurement of max, 3 to 16 channels
- Vibration Measurement Simulation
- · Measurement analysis
- Data ComparisonData converted to Excel files

General Information

Items	Details
Battery	Rechargeable, 3.6V
Operation Hours	Continuously for 15 hours (room temperature)
Operation / Storage Temperatures	0~300℃ / 0~40℃
Dimension	283×60×23 / 283×97×23

Measurement

Items	Sensor	Measuring Scope	Error(s)
Temperature Measurement	K-type Thermocouple	0~400℃	±2℃
Sampling		0.3, 0.6, 1.2 and 2.4sec Above is also possible.	
Measurement Time		10Minutes	
Internal Storages		2	
Vibration Measurement Info		2G Gravity acceleration sensor	

Specification

Specification	Minimum Requirement
OS	Windows 95, 98, ME, 2000, XP, 7, 8, 10
Processor/Memory	Pentium2 and later / 64MB and more
HDD / CD-ROM	64MB and more / CD-ROM (Program Installation)
Video Card / Connection	1024×768, 16 bit and more / USB

- Measurement of max. 6 channels
 Displays Real-time measurement data
- Simulation Measurement analysis
- Data Comparison
 Data converted to Excel files

General Information

Items	Details
Battery	Rechargeable, 6V
Operation Hours	Continuously for 10 hours (room temperature)
Operation / Storage Temperatures	0~300°C / 0~40°C
Dimension	311×60×23 / 311×97×23

Measurement

Items	Sensor	Measuring Scope	Error(s)
Temperature Measurement	K-type Thermocouple	0~300℃	±2℃
Sampling		0.3sec	
Measurement Time		10Minutes	
Internal Storages		Bluetooth /100m	

Specification

Specification	Minimum Requirement
OS	Windows 95, 98, ME, 2000, XP, 7, 8, 10
Processor/Memory	Pentium2 and later / 64MB and more
HDD / CD-ROM	64MB and more / CD-ROM (Program Installation)
Video Card / Connection	1024×768, 16 bit and more / RS232C

- Result storage up to 2 times
 Adjustable sampling speed & low-power
- Data Filtering
 Monitoring for low battery
 - · Protection for internal circuits

· Result storage up to 2 times

· Monitoring for low battery

Data Filtering

· Adjustable sampling speed & low-power

Protection for internal circuits
 Supports multiple languages including Korean

Supports multiple languages including Korean

· Designed for low power

Monitoring for low battery
 Protection for internal circuits

Data Filtering

UI-301A10 [REFLOW CHECKER MASTER]



UI-501 CRTTPS - REFLOW

Available in PbFree Real Time Temperature Profile System



UI-WVT (RAIL WIDTH + VIBRATION MEASUREMENT)

Rail-width & Vibration measurement system



- Sample PCB data is generated by one measurement with sample PCB temperature sensor and UISYS own temperature sensor.
- It is not inconvenient to connect the sample PCB only by loading the data when re-measurement after sample measurement is completed.
- · Shorten the time to measure the profile temperature
- · Easily and easily measured
- Measurable without standard PCB
- USB charging method
- OK / NG judgement by specification
- Up to 5CH can be measured
- simulation & Data filtering
- Battery Low Power Monitoring
- · Internal circuit protection function

RTTPS [Real Time Temperature Profile System]

The system uses max, 32 channels temperature sensor fixed within the Reflow to detect any temperature changes and evaluate its status realtime, while proximity sensors and photo sensors measure and monitor production environment of the Reflow by detecting velocity of the conveyor belts and PCB, thus enhancing productivity and preventing mass defects. The equipment can be maintained real-time from remote location via network version.

Measurement			
Items	Sensor	Measuring Scope	Error(s)
Temperature Measurement	K-type Thermocouple	0~400°C	±2°C
Sampling		1Second	
C/V	Metal Sensor		
PCB Detection	Photo Sensor		
Specification			
Specification	Mir	imum Requirement	
OS	Windows 95, 98, ME, 2000), XP, 7, 8, 10	
Processor/Memory	Pentium2 and later / 6	4MB and more	
HDD / CD-ROM	64MB and more / CD-ROM (Program Installation)		
Video Card / Connection	1024×768, 16 bit and	more / RS232C	

The uniformity of conveyor rail width of reflow machine and wave machine can be checked.

The magnitude of the vibration that occurs when passing through a conveyor can be quantified using a gravity sensor.

Measurement

Items	Sensor	Measuring Scope	Error(s)
Width Measurement	Linear Type	-15 mm $\sim +15$ mm	±0.01
Resolution		1 / 100 mm	
Sampling		0,3 Second	
Vibration	2G Gravity acceleration Sensor		

Specification	Minimum Requirement
OS	Windows 95, 98, ME, 2000, XP, 7, 8, 10
Processor/Memory	Pentium2 and later / 64MB and more
HDD / CD-ROM	64MB and more / CD-ROM (Program Installation)
Video Card / Connection	1024×768, 16 bit and more / USB

UI-351A6 [WAVE CHECKER]



Available in PbFree Wave Checker



Measurement

Items	Sensor	Items	Sensor
1st Dip Time	Left, Center, Right	1st & 2nd 0.9mm Dip	Left, Right
2nd Dip Time	Left, Center, Right	1st & 2nd 0.6mm Dip	Left, Right
1st & 2nd 1.8mm Dip	Left, Right	Preheat	Upper & lower sides of PCB
1st & 2nd 1.5mm Dip	Left, Right	Max, PCB Temperature	Upper & lower sides of PCB
1st & 2nd 1.2mm Dip	Left, Right	Solder, C/V	Solder temperature, conveyor speed

UI-351A/F



Available in PbFree Wave Checker

[FLEXIBLE WAVE CHECKER]



Measurement

Items	Sensor	Items	Sensor
1st Dip Time	Left, Center, Right	1st & 2nd 0.9mm Dip	Left, Right
2nd Dip Time	Left, Center, Right	1st & 2nd 0.6mm Dip	Left, Right
1st & 2nd 1.8mm Dip	Left, Right	Preheat	Upper & lower sides of PCB
1st & 2nd 1.5mm Dip	Left, Right	Max, PCB Temperature	Upper & lower sides of PCB
1st & 2nd 1.2mm Dip	Left, Right	Solder, C/V	Solder temperature, conveyor speed

UI-510

[RTTPS - WAVE]

Available in PbFree Real Time Temperature Profile System





e Detection Sense

- · Measurement of max. 6 channels
- PC based Profile
- Different dip-time by depth
- Balanced sides
- Measurement analysis
- Data converted to Excel files
- Max, 5 data storages
- · Soldering / Preheating temperature
- Data filtering
- C/V Speed

General Information

Items	Details	Items	Details
Battery	Rechargeable, 3.6V	Dip Interval/Duration	0.3sec / 10Minutes
Operation Hours	Continuously for 30 hrs (room temperature)	Dip time (Left, Right)	Center, left, and right, by depth
Operation / Storage Temperatures	0~300℃/0~40℃	Continuous measurement	5times
Temperature Measurement	0~300℃±2℃	Dimension	342.5×220×42

Specification

Specification	Minimum Requirement
OS	Windows 95, 98, ME, 2000, XP, 7, 8, 10
Processor/Memory	Pentium2 and later / 64MB and more
HDD / CD-ROM	64MB and more / CD-ROM (Program Install)
Video Card / Connection	1024×768, 16 bit and more / USB

- Measurement of max. 6 channels
- PC based Profile
- Different dip-time by depth
- Balanced sides
- Measurement analysis
- Data converted to Excel files
- Max. 5 data storages
- Soldering / Preheating temperature
- Data filtering
- C/V Speed
- Customized Size (Fix 95mm, from 125mm)
- One device is applicable for multiple JIGs

General Information

Items	Details	Items	Details
Battery	Rechargeable, 6V	Dip Interval/Duration	0.3sec/10 Minutes
Operation Hours	Continuously for 30 hrs (room temperature)	Dip time (Left, Right)	Center, left, and right, by depth
Operation / Storage Temperatures	0~300℃/0~40℃	Continuous measurement	5 times
Temperature Measurement	0~300°C±2°C	Dimension	342.5×125~600×42

Specification

Specification	Minimum Requirement
OS	Windows 95, 98, ME, 2000, XP, 7, 8, 10
Processor/Memory	Pentium2 and later / 64MB and more
HDD / CD-ROM	64MB and more / CD-ROM (Program Install)
Video Card / Connection	1024×768, 16 bit and more / RS232C

RTTPS [Real Time Temperature Profile System]

The UI-510 RTTPS enables automatic profile by monitoring real-time temperature changes within the preheaters and solder pot/coolers, by fixing temperature sensors inside the wave machines. Proximity and impeller sensors enable changes in conveyor and motor speed, along with dip time, to improve productivity and preventing mass defects.

UI-510 also prevents fire by fire detection sensors, and can be monitored real-time from remote location via network.

Measurement

OF PC	Items	Sensor	Measuring Scope	Error(s)
	arature Measurement	K-type Thermocouple	0~400℃	±2℃
5	ing		1 sec	
		Metal Sensor		
-)etection	Photo Sensor		
	measurement within solder pot	Laser sensor	100~250mm / 0.1mm	
51	pecification			

Specification Minimum Requirement OS Windows 95, 98, ME, 2000, XP, 7, 8, 10 Processor/Memory Pentium2 and later / 64MB and more HDD / CD–ROM 64MB and more / CD–ROM (Program Installation) Video Card / Connection 1024×768, 16 bit and more / RS232C

UI-354

[SELECTIVE CHECKER]



Available in PbFree Selective Checker





- Measurement of max. 6 channels
- PC based Profile
- Different dip-time by depth
- Balanced sides
- Measurement analysis
- Data converted to Excel files
- Max. 5 data storages
- Soldering / Preheating temperature
- Data filtering
- C/V Speed

General Information

Items	Details	Items	Details
Battery	Rechargeable, 6V	Dip Interval/Duration	0.3sec / 10Minutes
Operation Hours	Continuously for 30 hrs (room temperature)	Dip time (Left, Right)	Center, left, and right, by depth
Operation / Storage Temperatures	0~300℃/0~40℃	Continuous measurement	5times
Temperature Measurement	0~300℃±2℃	Dimension	342.5×220×42

Measurement

Items	Sensor	Items	Sensor
1st Dip Time	Left, Center, Right	1st & 2nd 0.9mm Dip	Left, Right
2nd Dip Time	Left, Center, Right	1st & 2nd 0.6mm Dip	Left, Right
1st & 2nd 1.8mm Dip	Left, Right	Preheat	Upper & lower sides of PCB
1st & 2nd 1.5mm Dip	Left, Right	Max. PCB Temperature	Upper & lower sides of PCB
1st & 2nd 1.2mm Dip	Left, Right	Solder, C/V	Solder temperature, conveyor speed

 Specification 	
Specification	Minimum Requirement
OS	Windows 95, 98, ME, 2000, XP, 7, 8, 10
Processor/Memory	Pentium2 and later / 64MB and more
HDD / CD-ROM	64MB and more / CD-ROM (Program Installation)
Video Card / Connection	1024×768, 16 bit and more / RS232C

■ APPLICATION EXAMPLE



UI-O210KTV

[IN-LINE O₂ + TEMP. + VIBRATION ANALYZER]



Available in PbFree In-Line O₂ + Temperatures Analyzer





| Patent No. 10-1102986

UI-O210KA

[IN-LINE O2 ANALYZER]



- In-Line O₂ Measurement
- Result storage up to 2 times
- Analysis & Comparison of measurement
- PC based O2 & Temp. Profile
- Precision measurement : 0~1Kppm
- Standard measurement : 0~10Kppm
- Wide area measurement : 0~250Kppm
- Data converted to Excel files
- Temperature Measurement of max 3 Channels

General Information

Items	Details
Battery	Rechargeable, 14.8V
Operation Hours	Continuously for 40 minutes (room temperature)
Operation / Storage Temperatures	Common SMT Reflow / 0~4°C
Dimension	490×120(280)×33

Measurement

Items	Sensor	Measuring Scope	Error(s)
Oxygen measurement	Zirconia	0ppm~1,000ppm 0ppm~10,000ppm 0ppm~250,000ppm	±3℃
Sampling		0.3, 0.6, 1.2 and 2.4sec	
Measurement time		10, 20, 40 and 80minutes	
Internal Storages		2	
Temp. Measurement	K-type	0~400℃	±2℃
Vibration measurement		2G Gravity Acceleration Sensor	

Specification

Specification	Minimum Requirement
OS	Windows 95, 98, ME, 2000, XP, 7, 8, 10
Processor/Memory	Pentium2 and later / 64MB and more
HDD / CD-ROM	64MB and more / CD-ROM (Program Installation)
Video Card / Connection	1024×768, 16 bit and more / USB

- In-Line O2 Measurement
- Result storage up to 5 times
- Analysis & Comparison of measurement
- PC based O₂ Profile
- Precision measurement : 0 \sim 1Kppm
- Standard measurement : 0~10Kppm
- Wide area measurement : 0~250Kppm
- Data converted to Excel files

General Information

Items	Details
Battery	Rechargeable, 8.4V
Operation Hours	Continuously for 40 minutes (room temperature)
Operation / Storage Temperatures	Common SMT Reflow / 0~4℃
Dimension	490×120(280)×33

Measurement

Items	Sensor	Measuring Scope	Error(s)
Oxygen measurement	Zirconia	0ppm~1,000ppm 0ppm~10,000ppm 0ppm~250,000ppm	±3℃
Sampling		0.3, 0.6, 1.2 and 2.4sec	
Measurement time		10, 20, 40 and 80minutes	
Internal Storages		5	

Specification

Specification	Minimum Requirement
OS	Windows 95, 98, ME, 2000, XP, 7, 8, 10
Processor/Memory	Pentium2 and later / 64MB and more
HDD / CD-ROM	64MB and more / CD-ROM (Program Installation)
Video Card / Connection	1024×768, 16 bit and more / RS232C

| Patent No. 10-1102986

UI-550

[O2 ANALYZER]

Stationary mounted type O₂ Analyzer



Measurement

Items	Sensor	Measuring Scope	Error(s)
Oxygen measurement	Zirconia	25%~50ppm	±2%
Sampling		For 100 sec at initial stage, by 1 sec	

UI-701 [RPPM]

Available in PbFree Real Time O2 Profile System



UI-550 can detect up to 50ppm of oxygen at 25% (higher density than the atmosphere), and convert output data according to PC transmission inquiries (connection, low voltage, or current) UI-550 can detect 13CH with selected options.

General Information

tems	Details
Fitting	Externally 6mm
Option	Max. 13CH
Dimension	390 ×195×235

Specification

Specification	Minimum Requirement
Power	110~250V(50/60Hz)
Display	FND 4 Digit
Connection	RS232
Option	Signal conversion enabled, 4~20mA, 0mV~10V

RPPM [Real time O₂ PPM profile system]

UI-701 can realize profile automation by monitoring real-time oxygen distribution within equipment by fixing multi-channel suction points in the reflow machine, thus acquiring more than 30 profiles per day by check-ing continuous oxygen changes, along with enhanced productivity and prevention of mass defects.

The equipment can be maintained real-time from remote location via network version.

Measurement

Items	Sensor	Measuring Scope	Error(s)
Temperature Measurement	Zirconia	0ppm~250,000ppm	±3%
Sampling		1sec	
C/V	Metal Sensor		
PCB Detection	Photo Sensor		

Specification

Specification	Minimum Requirement
OS	Windows 95, 98, ME, 2000, XP, 7, 8, 10
Processor/Memory	Pentium2 and later / 64MB and more
HDD / CD-ROM	64MB and more / CD-ROM (Program Installation)
Video Card / Connection	1024×768, 16 bit and more / RS232C

APPLICATION EXAMPLE



UI-L01

[LINE MONITORING SYSTEM]



UI-L01 Line Monitoring System selects and manages trainees for each step of the production lines.

Only certified employees who:

1) completed preset training courses,

2) and got issued with certificate

can work at the production lines.

Purposes

- To allow workers who completed preset training courses and got issued with the certificates as defined according to each production lines.
- To enhance yield rate by deploying and managing certified workers for each production models.
- The company should open specific training courses for each production lines, so that workers can complete the courses and be deployed with certain level of skills (as certified by Production Line Certificate)

Specification

Specification	Minimum Requirement
OS	Windows 95, 98, ME, 2000, XP, 7, 8, 10
Processor/Memory	Pentium2 and later / 64MB and more
HDD / CD-ROM	64MB and more / CD-ROM (Program Installation)
Video Card / Connection	1024×768, 16 bit and more / USB

UI-SSM [SOLDER-IRON STATE MONITORING SYSTEM]



UI-601 [SOLDER CREAM COLD STORAGE MANAGEMENT SYSTEM]

Solder Cream Cold Storage Management System



When using KBC's Patriot tools on the production line, Central monitoring of the tip temperature is possible.

The central server is capable of monitoring individual temperature control of iron-solder and temperature change control.

Up to 16 devices can be set as one network group, and multiple group networks can be integrated for central monitoring.

It is possible to prevent the operator from arbitrarily manipulating the temperature of the iron-solder.

For some features and interface designs, you can make changes based on your requirements. [option]

Monitoring system for Solder Cream & Cooling 'management'

- FIFO management using barcode system
- Storing & managing different types of solder cream and resin
- Real-time monitoring for stock and operation status
- Can manage max. 4 refrigerators.

Measurement

Sensor	Measuring Scope	Error(s)
	-10°C~30°C	±2℃
	Within 3mm	
Barcode Reader		
	Sensor Barcode Reader	Sensor Measuring Scope -10°C~30°C Within 3mm Barcode Reader Within 3mm

Specification	Minimum Requirement	
OS	Windows 95, 98, ME, 2000, XP, 7, 8, 10	
Processor/Memory	Pentium2 and later / 64MB and more	
HDD / CD-ROM	64MB and more / CD-ROM (Program Installation)	
Video Card / Connection	1024×768, 16 bit and more / RS232C	

UI-EMS









ELECTRIC OVER STRESS UI-EOS **MANAGEMENT SYSTEM**



Central Control Server

- Manages whether the workers are sufficiently grounded for protection.
- Monitors grounding for each section of production line.
- Maximized monitoring by visualizing grounding status of each workers, and their positions.
- Provides statistics by production line sections, workers, and time units, according to the needs of the operator.

Specification

Specification	Minimum Requirement
OS	Windows 95, 98, ME, 2000, XP, 7, 8, 10
Processor/Memory	Pentium2 and later / 64MB and more
HDD / CD-ROM	64MB and more / CD–ROM (Program Installation)
Video Card / Connection	1024×768, 16 bit and more / USB

Central Control Server

- Manages whether the workers are sufficiently grounded for protection.
- Monitors grounding for each section of production line.
- Maximized monitoring by visualizing grounding status of each workers, and their positions.
- Provides statistics by production line sections, workers, and time units, according to the needs of the operator.
- Only the ON / OFF contact point monitoring function can be implemented, thereby minimizing the cost burden on the user.

Specification

Specification	Minimum Requirement
OS	Windows 95, 98, ME, 2000, XP, 7, 8, 10
Processor/Memory	Pentium2 and later / 64MB and more
HDD / CD-ROM	64MB and more / CD-ROM (Program Installation)
Video Card / Connection	1024×768, 16 bit and more / USB

Central Control Server

- EOS (Electric Over-Load)

Spark (static electricity) caused by abnormal voltage increase causes damages to equipment and parts. It enables central monitoring of EOS of user's desired equipment.

- Real-time EOS Monitoring of SMD line
- Monitor and measure real-time EOS value, alarm value
- Reduced time and manpower required for existing manual inspection, real-time full line inspection and immediate action
- It takes too much inspection time (480 minutes / 2 persons) in the existing audit cycle, If you use this system, you can solve this situation.

Specification	Minimum Requirement
OS	Windows 95, 98, ME, 2000, XP, 7, 8, 10
Processor/Memory	Pentium4 and later / 4GB and more
HDD / CD-ROM	500GB and more
Video Card / Connection	1024×768, 16 bit and more / USB

UI-SMS

[SURGE MONITORING SYSTEM]



Central Control Server

- Manages whether the equipment are sufficiently grounded for protection.
- Monitors grounding for each section of production line.
- Maximized monitoring by visualizing grounding status of each equipment, and their positions.
- Provides statistics by production line sections, workers, and time units, according to the needs of the operator.

Specification

Specification	Minimum Requirement
OS	Windows 95, 98, ME, 2000, XP, 7, 8, 10
Processor/Memory	Pentium4 and later / 4GB and more
HDD / CD-ROM	500GB and more
Video Card / Connection	1024×768, 16 bit and more / USB

UI-HICAM [REFLOW INLINE CAMERA]



In addition to the channel 3 and the temperature measuring function, vibration measurements, in addition to a camera function ease than it is observed inside the reflow.

There are two types of camera module a close-up module capable of enlarging the soldering process of parts and a wide-angle shooting module capable of shooting the entire environment of the oven.

There are two methods of close-up photography a method of photographing the spreadability and solder using a standard type PCB provided by the company, and an actual photographing of an actual production PCB using a separate camera module.

By using a storage method using a separable memory card, noise that may occur during wireless transmission / reception is excluded.

General Information

Items	Details	Items	Sensor	Measuring Scope	Error(s)
Battery	Rechargeable, 14.8V	Temperature Measurement	KK-type Thermocouple	0~400℃	±2℃
Operation Hours	Continuously for 1 hours (room temperature)	Sampling		0.3, 0.6, 1.2 and 2.4sec	
Operation / Storage Temperatures	tion / Storage Temperatures 0~300°C/0~40°C			10Minutes	
Dimension 300×73×26 (control) / 385×85×35(out)		Internal Storages		2	

Measurement

Specification	Minimum Requirement
OS	Windows 95, 98, ME, 2000, XP, 7, 8, 10
Processor/Memory	Pentium4 and later / 2GB and more
HDD / CD-ROM	200GB and more / CD-ROM (Program Installation)
Video Card / Connection	1024×768, 16 bit and more / USB
Video Measurement Info	HD (1280 x 760) / 1 minute Composite
Vibration Measurement Info	2G Gravity acceleration sensor
Video storage capacity	Depending on the size of the external memory

PROFILE REFERENCE



- PbFree Soldering Temp Profile



(Standard PbFree Temp Profile)