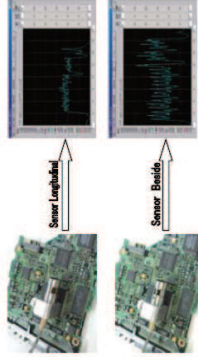
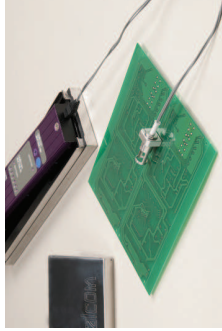


RCX-1 series

REFLOW CHECKER (MODULAR TYPE)

RCX-W Reflow Checker Memory Unit (plus a Air Velocity Monitor)

- A module for Wind Speed measurement.
 - A Wind speed sensor mounted on a PC board measures wind speed of the important point.
 - Take measurement in the same reflow conditions as that of during production.
 - Measure wind speed from upper or side directions.
- Additional Heat Resistant Case for RCM-W is necessary.

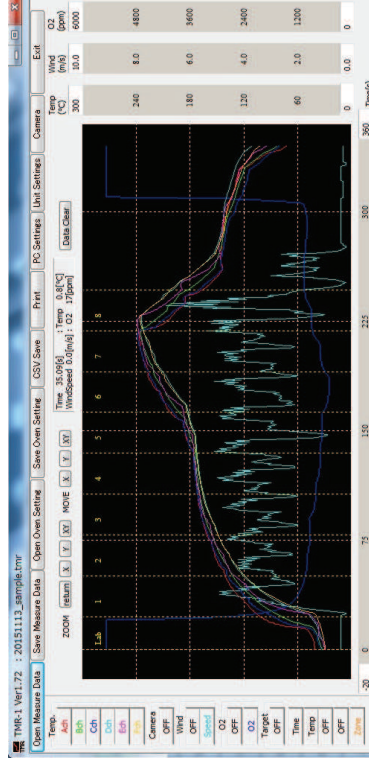


Specifications

Sampling Time (sec.)	0.05 sec, 0.1 sec, 0.2 sec, 0.5 sec, 1.0 sec, 2.0 sec, 4.0 sec, 8.0 sec * Arbitrarily set up possible (default : 0.05 sec.)
Wind Speed Measurement range	0.1~5m/s
Wind Speed Measurement accuracy	5% ± 0.1m/s of the indicated value
Power supply	Supplied from RCM-S Memory unit. Ni-MH battery (AAA battery x 3pcs.)
Outer dimensions	Memory unit (w/o Heat resistant case) (D) 220 x (W) 50 x (H) 18 mm (When RCM-S is assembled.) Heat resistant case. (D) 370 x (W) 65 x (H) 25 mm
Data transmission method	USB
Weight	Approx. 800g (Conveyor Attachment System is not included.)

TMR-1 system program

- Evaluate and control reflow process from different angles, not only temperature control of a reflow oven.
- The temperature profile prediction function helps smoothly examine a profile.
- Simultaneously display Profile & Data of Temperature, Wind Speed, O₂ Concentration on the same screen.
- Profile Support function offers easy profile creation.
- TPD files, the file format of TAM series, are viewable.



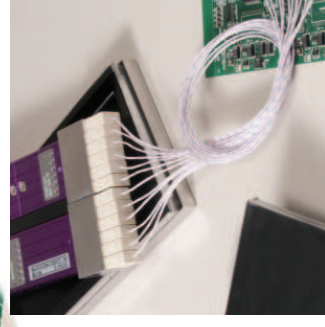
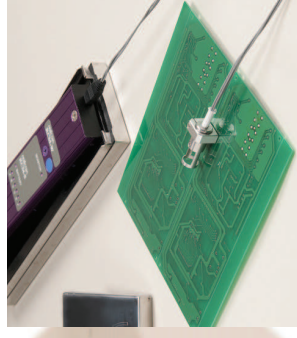
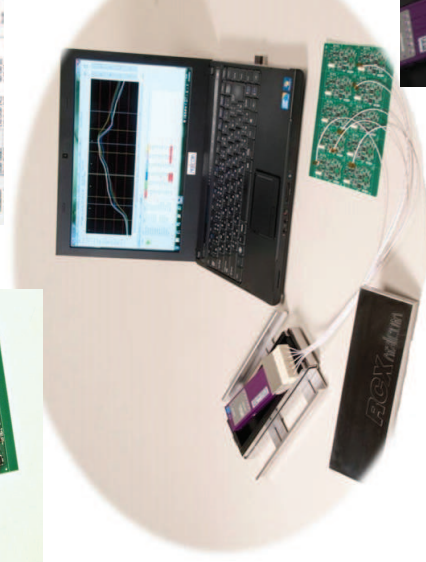
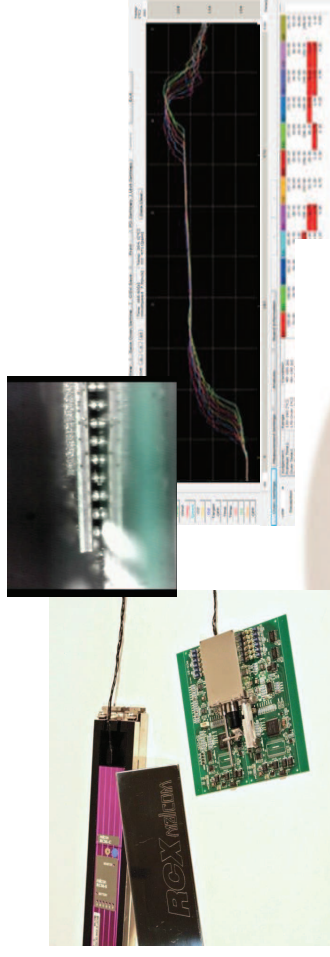
The specifications are subject to change without notice.

- * 1 It differs from the heat resistant time of memory unit.
- * 2 It is the experimental value by AAA battery. The max. measuring time depends on battery capacity.
- * 3 It does not include thermocouple error and reference junction temperature error.

Soldering Process Devices
LED Manufacturing Devices
Bio-Technology Products

MALCOM Company Limited
15-10, Honmachō 4-Chōme, Shibuya-ku,
Tokyo 151-0071 Japan
Tel: 81-3-3320-5611 Fax: 81-3-3320-5886
E-mail: whq@malcom.co.jp

Representative



MALCOM offers New concept Reflow Oven Measurement System.
Add your choice of Module to RCX-1 Memory Unit.

Malcom's Unique Modular System Innovates Reflow Process Control

RCX-1 Reflow Checker (Modular Type)

- Thermocouple check function is equipped.
- Memorize up to 20 profiles, making it possible for continuous measurement of some production lines. (Please fully cool down RCM-S memory unit before next measurement.)
- AAA batteries are available.
- Built-in Battery Monitoring function.

Specifications

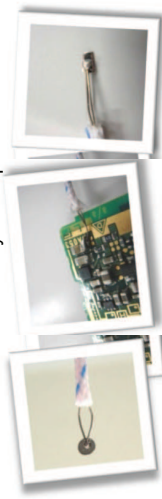
Measuring temp. range	0~500 °C *1
Max. measuring time	Approx. 10 hours *1 *2
Sampling time	0.05 - 0.1 - 0.2 - 0.5 - 1.0 - 2.0 - 4.0 - 8.0 sec. (Arbitrary set up possible)
Temp. accuracy	± 1 °C *3
Measuring points	1~6 point
Heat resistant connector	Miniature connector
Input	Thermocouple JIS-K 1KΩ max. (φ0.1mm under 10m)
Cooling fan	Model: RCF-3 (100~240V) 240 (D) x 350 (W) x 160 (H) mm
Power supply (RCM-S memory unit)	AAA batteries, Manganese batteries, Alkaline battery, Ni-MH battery
Data Transmission Method	USB
Outer dimensions	Main unit: 170 (D) x 50 (W) x 18 (H) mm Heat resistant case for RCX-1: 245 (D) x 65 (W) x 25 (H)mm
Weight	Approx. 550g (Conveyor attachment system is not included.)

<Option> Easy attachment thermocouple will offer simplified attachment work and enhance accuracy of temperature measurement.

Attachment by a smaller amount of solder or adhesive is possible by a small copper plate welded to the tip of the thermocouple.

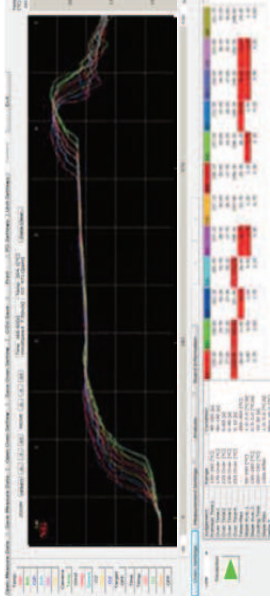
Everyone can attach thermocouple to PC board with ease.

* The curing time depends on the adhesive's spec.



RCX-T Reflow Checker Memory Unit (plus a 6 channels)

- Add RCX-T Reflow Checker Memory Unit (plus a 6 channels) to RCX-S Reflow Checker Memory Unit (6 channels), providing 12 points measurement.
 - Can be used as 12 channels to study profiles, trial production and evaluation, for normal production, employed as 6 channels.
- Additional Heat Resistant Case for RCM-T is necessary.



TMR-1 RCX-T Measurement Data

Measuring temp. range	0~500 °C *1
Max. measuring time	Approx. 5 hours *1 *2
Sampling time	0.05, 0.1, 0.2, 0.5, 1.0, 2.0, 4.0, 8.0 Arbitrary setup possible, Synchronized with RCM-S main unit.
Temp. accuracy	± 1°C *3
Measuring points	1~12 Points
Heat resistant connector	Miniature Connector
Input	Thermocouple JIS-K 1KΩ max. (φ0.1mm 10m)
Power supply	Supplied from RCM-S Memory unit, Ni-MH battery (AAA battery x 3pcs.)
Outer dimensions	Main Unit (w/o Heat resistant case): 180 (D) x 100 (W) x 18 (H) mm (when RCM-S is assembled.) Heat resistant case: 250 (D) x 114 (W) x 25 (H) mm
Weight	Approx. 1000g (Conveyor Attachment System is not included.)



RCX-C Reflow Checker Memory Unit (Observation Monitor)

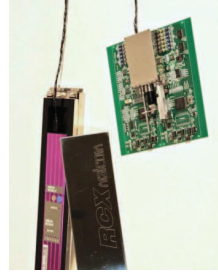
- A Removal Camera is directly mounted on a PC board, which offers viewing from various points.
- Monitoring from upper, side & diagonal are also possible with a Imaging Mirror.



0402 image example from upper face



0.5mm pitch CSP image example



Specifications

Max. measuring time	Video recording for about 10 minutes *1
Camera Number of Pixels	300 thousand pixels
Camera Field size	Approx. 4 (W) x 3 (H) mm (WD10 ± 2mm) ~ Approx. 55 (W) x 41 (H) mm (WD300 ± 2mm)
Lighting	LED
Power supply	Supplied from RCM-S Memory unit, Ni-MH battery (AAA battery x 3pcs.)
Outer dimensions	Heat resistant case for Memory unit: 360mm (D) x 65mm (W) x 25mm (H) Heat resistant case for Camera unit: 84mm (D) x 44mm (W) x 17.5mm (H)
Data Transmission Method	Video: USB
Weight	RCM-S main unit + Camera unit: Approx 800g (Conveyor Attachment System is not included.) Camera unit: Approx. 150g (Conveyor Attachment System is not included.)

RCX-O Reflow Checker Memory Unit (plus a O₂ Concentration Monitor)

A module to measure O₂ Concentration.

- Measure O₂ Concentration of the important point on a PC board.
 - Take measurement in the same reflow conditions as that of during production.
 - The measurement range is selectable. (50 ppm ~ 5,000 ppm or 1,000 ppm ~ 10,000 ppm)
- Additional Heat Resistant Case for RCM-O is necessary.



Specifications

Max. measuring time	Ni-MH battery Approx. 40 minutes *1
Sampling Time (sec.)	0.05, 0.1, 0.2, 0.5, 1.0, 2.0, 4.0, 8.0 Arbitrary setup possible, Synchronized with RCM-S main unit.
Oxygen Measurement principle	Zirconia limiting current method
Oxygen Measurement range	50ppm~5000ppm or 10000ppm
Oxygen Measurement accuracy	50ppm~1000ppm±5%FS 1000ppm~10000ppm±5%FS 10000ppm±5000ppm±10%FS
Power supply	Supplied from RCM-S Memory unit, Ni-MH battery (AAA battery x 3pcs.)
Outer dimensions	Main Unit (w/o Heat resistant case): 50 (W) x 335 (D) x 18 (H) mm (when RCM-S is assembled) Heat resistant case: 65 (W) x 370 (D) x 25 (H) mm
Weight	Approx. 950g (Conveyor Attachment System is not included.)