

Main Products

- Coplanarity Measuring System
- Temperature Control Observation System / Reflow Scope
- Heat Observation & Measurement System
- Portable Insertion & Extraction Force Measurement Unit



Coplanarity Measuring System [High-accuracy LIP type]



Coplanarity Measurement & Reflow Observation System



Coplanarity Measurement & Reflow Observation System



Heat Observation & Measurement System [Microview β]



Temperature Control Observation System
[Reflow Scope - Wide View]



Temperature Control X-ray Observation System
[Reflow Scope - X Ray]

cores

Cores Corporation

Cores' measuring equipment series helps you to solve various problems in common among related industries.

core9032a HYBRID Coplanarity Measurement & Reflow Observation System



Features

- This one single unit is good enough to observe as well as measure the coplanarity/warpage and behavior of devices/ solders at high temperatures.
- Adopts a device-friendly convection heating method quite similar to those of real reflow ovens, and, thus, attains an ideal environment of uniform heat distribution for such real-time measurement and observation.
- Three-dimensional measurement and observation of devices is highly instrumental in your daily pursuit of various problem solutions

Patent No.4849709 : Coplanarity Measurement System & Glass Datum Plane Method

Specifications

● Light source	Red semi-conductor laser 670nm JIS Class1
● Resolution	0.3 μm
● Measuring range	±1000 μm
● Accuracy	±1% of Reading ± 2 μm
● Measuring length	X axis 100mm , Y axis 75mm
● Power consumption	Approx 2,200VA
● Weight	Main unit : Approx. 65kg Control unit : Approx. 25kg Transformer : Approx. 50kg
● Dimensions	Main unit : W760×D380×H540mm Control unit : W295×D400×H400mm
● Power	200 VAC ± 10%(50/60Hz) Use single-phase transformer
● Air consumption	230L/min
● Ambient temperature	25°C ± 3°C

core9038a HYBRID Coplanarity Measurement & Reflow Observation System



Features

- Cores' Hybrid Reflow Simulator, equipped with a large, convection and glass showcase type reflow, ensures both effective measurement and observation.
- Two different sensors enable the measurement of a wide variety of targets ranging from a small electric device to a large PWB in A4 size.
- The optional camera unit observes and analyzes the device from 2 directions.

Specifications

● Light source	Red semi-conductor laser 670nm JIS Class1/ 650nm JIS Class2
● Resolution	0.3 μm/0.8 μm
● Measuring range	±1,000 μm/±4,500 μm
● Measuring length	X axis 300mm , Y axis 210mm
● Power consumption	Approx 14kVA
● Weight	Main unit : Approx.200kg Monitor unit : Approx.60kg
● Dimensions	Main unit : W1,100×D800×H1,360mm Monitor unit : W480×D640×H1,280mm
● Power	200 VAC ± 5% (50 / 60Hz) single phase
● Air consumption	650L/min
● Ambient temperature	25°C ± 3°C

core9012a

Coplanarity Measuring System [High-accuracy LIP type]



Features

- Measures coplanarity with great precision
- Applicable to in-line production
- Suitable for evaluation of design and quality control

Specifications

● Light source	Semiconductor laser
● Resolution	0.3 μm
● Measuring range	±1,000 μm
● Accuracy	±1% of reading ± 2 μm
● Measuring length	X axis 100mm , Y axis 45mm
● Power consumption	250VA
● Weight	Main unit : Approx. 40kg Control unit : Approx. 23kg
● Dimensions	Main unit : W406×D313×H368 Control unit : W295×D400×H405
● Power	100 VAC ± 10%(50/60Hz)
● Ambient temperature	25°C ± 3°C

Cores is very proud to present here such a problem-solving series of equipment.

core9046a

NEW

Heat Observation & Measurement System [Microview β]



Features

- Functional additions make this unit even more versatile in dealing with not only what a conventional reflow simulator is expected to perform, say, heating and observation, but also analysis and report making.
- The newly adopted touchscreen gives you a sense of intuition and comfort whenever you operate it.

Specifications

● No of picture elements	2 Million pixels (color)
● Photographing range	Standard magnification Approx. W30.4mm×D22.5mm ~ W4.2mm×D3.1mm High magnification Approx 8.8mm(W)×6.6mm(D) ~1.1mm(W)×0.8mm(D) (in the case of camera input of 800×600, 20 fps)
● Heating range	W76×D62×H25mm
● Power consumption	Approx 1.1kVA
● Weight	Heating unit 3kg Control unit 12kg Camera stand 10kg
● Dimensions	Heating unit : W191×D180×H90mm Control unit : W300×D318×H210mm Camera stand : W391.5×D220.5×H423.5mm
● Power	100 VAC±10% (50/60Hz)
● Air consumption	Approx 250L/min
● Ambient temperature	25±5°C

core9045a

Heat Observation & Measurement System [Microview α]



Features

- Achieves high quality of a convection heating method similar to those of real reflows despite its dramatically compact size to be installed on a microscope.
- "corePlayer", the special software, is instrumental in analyzing surface-mount processes by comparing with the applied temp profile.
- All-in-one unit with a temp logger and an installation table.

Specifications

● No of picture elements	2 Million pixels (color)
● Photographing range	Standard magnification Approx. W30.4mm×D22.5mm ~ W4.2mm×D3.1mm High magnification Approx 8.8mm(W)×6.6mm(D) ~1.1mm(W)×0.8mm(D) (in the case of camera input of 800×600, 20 fps)
● Heating range	W76×D40×H26.5mm
● Power consumption	Approx 800VA
● Weight	Heating unit 2.5kg Control unit 11.5kg Camera stand 10kg
● Dimensions	Heating unit : W191×D180×H90mm Control unit : W325×D320×H275mm Camera stand : W391.5×D220.5×H423.5mm
● Power	100 VAC±10% (50/60Hz)
● Air consumption	Approx 80L/min
● Ambient temperature	25±5°C

core9055a

Temperature Control Observation System [Reflow Scope - Wide View]



Features

- You can see "PWB in A4 size" in the glass "show case" from above, from below and from sideways.
- Equipped with 2 cameras plus 4 light sources.
- Realizes an ideal environment of uniform heat distribution.
- All-in-one unit with a temp logger and an installation table.

Specifications

● No of picture elements	2 Million pixels (color)
● Photographing range	Low magnification(×7~56): W3.3×D2.5~W26.8×D20.1mm High magnification(×28~224): (Option) W0.8×D0.6~W6.7×D5.0mm (Resolution 1,280 x 1,024 pixels on 19" monitor)
● Heating range	W250×D340×H80mm
● Gases	Normal air, nitrogen
● Power consumption	Main unit : Approx. 13 kVA Control unit : Approx. 0.5 kVA
● Weight	Main unit : 90 kg Control unit : 19 kg Special table : 100kg
● Dimensions	Main unit : W760×D680×H540mm Control unit : W235×D399.5×H400mm Special table : W1650×D750×H700mm
● Power	200 VAC ± 5% (50/60Hz) 100 VAC ± 10% (50/60Hz)
● Air consumption	850L/min
● Ambient temperature	25±5°C

core9060a

Temperature Control X-ray Observation System【Reflow Scope - X Ray】



Features

- As World's First in temp control X-ray observation systems, it realizes an optical magnification of X 200 (an electrical magnification of X 500).
- Both such a small work as a BGA and a large PWB of A4 size can be observed under heated conditions.
- Heating, observation and taking photos are all possible real time.
- Cores' unique "Convection heating method" makes for an ideal temperature environment of uniform heat distribution.

Patent No. 4818245: Heat Type X-ray Observation Equipment

Specifications

●Magnification	Optical magnification ×3~200 Electrical magnification ×7.5~500
●Photographing range	W0.36×D0.27~W24×D18mm
●Gases	Normal air, nitrogen
●Power consumption	Main unit : Approx.15KVA Control unit : Approx.1.5KVA
●Weight	Main unit : Approx.1,500Kg Special table : Approx.50Kg
●Dimensions	Main unit : W1,464×D1335×H2,150mm Special table : W1,200×D800×H770mm
●Power	200 VAC ± 5%(50/60Hz) 100 VAC ± 10%(50/60Hz)
●Air consumption	850L/min
●Ambient temperature	25±5°C
●Stage size	W50~210mm×D10~300mm H20mm
●X-ray tube voltage	10 ~ 160kV
●X-ray generator	Transmission microfocus X-ray generator (Open tube)

core7100a



Features

- A life of max. 99,999 insertions for measurement is expected
- Applicable to connectors of push-push type
- Displays number of connect-disconnect operations as well as displacement and load data in real time
- Light, compact and easy to carry

Specifications

●Rated capacity	100.00N
●Allowable overload	300% of max. load
●Test speed	0.1 ~ 150.0 mm/sec (0.1, 0.2, 1.0, 5.0, 10 mm/sec respectively and each 10.0mm/sec between 10.0 and 150.0 mm/sec)
●Measurement stroke	99.99mm
●Dimensions	W 500 x D 430 x H 300 mm (except for protrusions)
●Weight	Approx. 18 Kg
●Power	100 ~ 240 VAC ± 10 % (50 / 60 Hz)
●Power consumption	30VA

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Safety Precautions

Read carefully the Operation Manual attached to your purchased product in the first instance so that you can use it correctly and safely.

Agent of Cores