



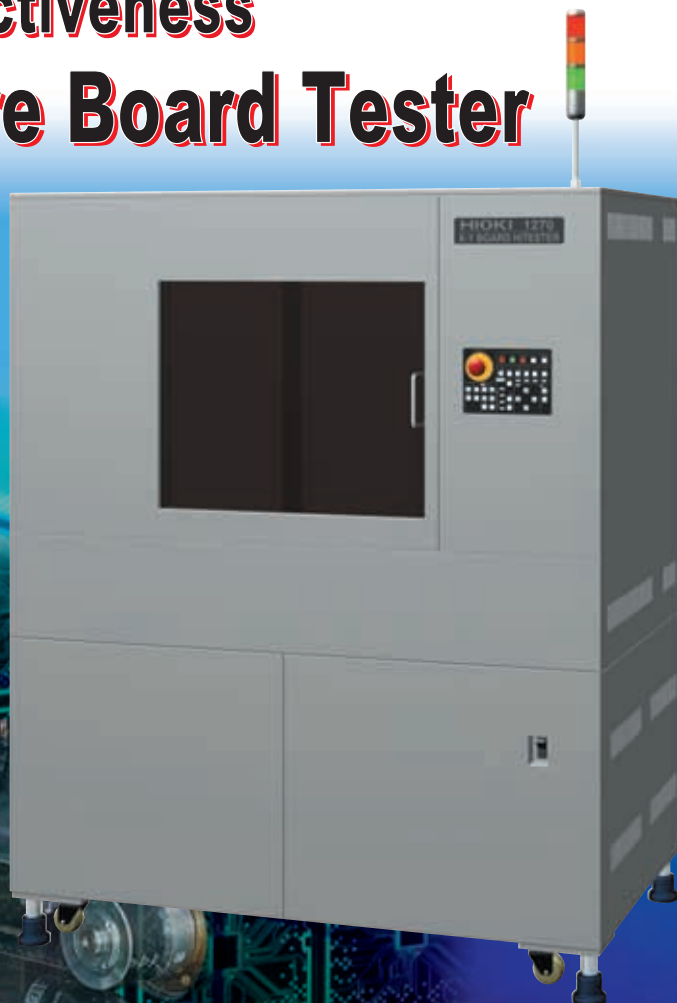
HIOKI

1270/1271 X-Y BOARD HiTESTER

Automatic Testing
Equipment



Superior cost effectiveness Dual-Sided Bare Board Tester



Maximum Measurement Speed of 0.015 s/step

The 1270/1271 X-Y BOARD HiTESTERS are fixtureless, dual-sided, bare board testers that provide superior cost performance. Using a total of four arms, two in front and two in back, it is capable of simultaneously testing both sides of a board, and is available with a 4-terminal resistance measurement function (optional) that allows measurement of very small resistances in IVH or through holes.

1270 (Board size : 50 × 50 to 400 × 330mm)

1271 (Board size : 50 × 70 to 610 × 510mm)



ISO14001
JQA-E-90091



<http://www.hioki.co.jp/>

HIOKI company overview, new products, environmental considerations and other information are available on our website.

A Wide Range of Test Capabilities

- Detection of short and open circuits with the capacitance measurement method.
- Detection of short open circuits with the continuity detection method.
- Detection of short and open circuits with combined capacitance-resistance measurement method.
(Patent No.JP1736393)
- Resistance measurement with IVH (Interstitial Via Hole) or through holes.
- Trace resistance measurement
- Detection of isolated IC pads on IC's.
- Measurement of insulation between networks.
- Detection of high resistance short circuits by capacitance measurement.
- L, C, R, and Diode measurements.

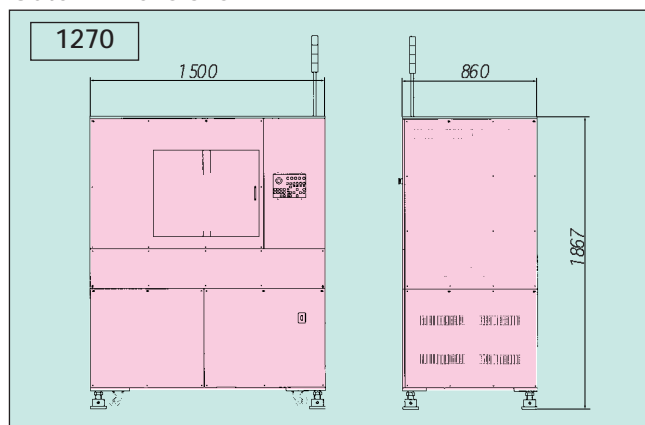
■ 1270/1271 Specifications

| | |
|---|---|
| Number of Arms | 4 (two each, front and back) |
| Number of Test Steps | 40,000 steps (300,000 for continuous testing) |
| Test Ranges | DC Measurement Function |
| | Resistance: 400 $\mu\Omega$ to 40 M Ω * |
| | Capacitance: 4 μF to 400 mF |
| | Diodes and Transistors (VF): 0 to 25 V |
| | Zener Diodes (VZ): 0 to 25 V |
| | Photocouplers: 0 to 25 V |
| | Short Circuit: 400 m Ω to 40 k Ω |
| | Open Circuit: 4 Ω to 4 M Ω |
| | Voltage: 0 to 25 V |
| | AC Measurement Function |
| Resistance: 1m Ω to 100 M Ω * | |
| Capacitance: 10 fF to 10 μF | |
| Inductance: 10 μH to 100 H | |
| Measurement Signal | DC Constant Voltage: 100 mV / 400 mV (2 ranges) |
| | DC Constant Current: 200 nA to 200 mA (13 ranges) |
| | AC Constant Voltage: 1 V / 10 V rms (2 ranges) 160 Hz / 1.6 kHz / 16 kHz / 160 kHz |
| Measurement Section | DC Voltage Measurement: 800 μV to 25 V f.s. (8 ranges) |
| | DC Current Measurement: 100 nA to 25 mA f.s. (7 ranges) |
| | AC Current Measurement: 10 μA to 1 mA rms (3 ranges, for 1 V rms) 1 μA to 100 μA peak f.s. (3 ranges, for 10 V peak) |
| | |
| Decision Range Setting | - 99.9% to + 999.9%, or absolute value |
| Measurement Time | 0.015 seconds / step at top speed (0.15 mm movement with 4-arm simultaneous probing with capacitance measurement method.) |
| Probing Accuracy | Each arm within $\pm 50 \mu\text{m}$ (X and Y axes, $20 \pm 3 \text{ }^\circ\text{C}$) |
| Probing Repeatability | Within $\pm 20 \mu\text{m}$ (probing position, same temperature) |
| Minimum Movement Resolution | X and Y: 1 μm / pulse, Z: 6 μm / pulse |
| Minimum Probing Pitch | 0.1 mm between the left and right arms when using link probes |
| Probe Work Area | 1270 : 394 (W) \times 324 (H) mm |
| | 1271 : 604 (W) \times 504 (H) mm |

| | |
|------------------------------|---|
| Board Fixation | Height: 1100 \pm 15 mm (when placed on an even floor) Position: Vertical |
| Fixation Method | Cranp method on four edges of board (sides are chucked for the center of the board only) |
| Fixable Boards | Thickness: 0.6 to 3.2 mm |
| | Outer Dimensions: 1270: 50 (W) \times 50 (H) to 400 (W) \times 330 (H) mm 1271: 50 (W) \times 70 (H) to 610 (W) \times 510 (H) mm |
| Alignment | Automatic |
| Safety Devices | Emergency stop switch, safety cover (anti-static resin), arm anti-collision function |
| Power Supply | AC 200 V (single phase), 50/60 Hz |
| | Power Consumption: 3 kVA |
| Operating Environment | Temperature: 23 \pm 10 $^\circ\text{C}$ |
| | Humidity: 75 %rh maximum (no condensation) |
| | Environment: Avoid use in environments subject to dust, vibration, or corrosive gases |
| | Floor Strength: 500 kg/m 2 minimum |
| Unit Dimensions | 1270: Approx. 1500 (W) \times 1800 (H) \times 860 (D) mm |
| Mass | Approx. 1000 kg |

*Using the 4-terminal resistance measuring method (optional)

Outer Dimensions



HIOKI

HIOKI E. E. CORPORATION

HEAD OFFICE :
81 Koizumi, Ueda, Nagano, 386-1192, Japan
TEL +81-268-28-0562 / FAX +81-268-28-0568
E-mail: os-com@hioki.co.jp

HIOKI USA CORPORATION :
6 Corporate Drive, Cranbury, NJ 08512 USA
TEL +1-609-409-9109 / FAX +1-609-409-9108
E-mail: hioki@hiokiusa.com

TKK HIOKI CO.,LTD :
NO.66-8,Sec.2,Nan Kan Road,Lu-chu,
Taoyuan,Taiwan,R.O.C.
TEL +886-3-311-7260 / FAX +886-3-311-8236

HIOKI E.E.CORPORATION Singapore Representative Office :
12 New Industrial Road,#02-04 Thoren Technocentre,Singapore 536202
TEL +65-288-0050 / FAX +65-282-2283
E-mail: kensoh@hioki.per.sg

DISTRIBUTED BY