

HIOKI



1118 X-Y INTEGRATED HiTESTER

Automatic Testing
Equipment



Merging of the Flying Probe and Fixture



Max. 100 times/sec High-speed Inspection

Model 1118 INTEGRATED HiTESTER offers high speed inspection that is ideal for IC package components such as FC-PGA, FC-BGA and MCM substrates. The high-precision fine-pitch probing is made up of two flying probes from the top side, which operates together with the lower test head/fixture to provide super speed inspection while maintaining low running costs. In addition to the short/open inspection feature and insulation testing for up to 250VDC, a 4-terminal resistance measurement function is also standardly equipped, demonstrating that the unit is powerful for also testing of low resistance of IVH (Interstitial Via Hole).



ISO14001
JQA-E-90091



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

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

■ Specifications

[Measuring unit]

Data types	: Step data S/O data (Net data)
Number of channels	: Test heads: Standard 512 channels (maximum 8,192 channels) Flying unit: 2-channel External electrode: 4-channel
Continuity test	: 400 mΩ ~: Detecting short 100 μΩ ~: Measuring resistance
Insulation test	: ~500 MΩ/250 V ~200 MΩ/100 V (variable in steps of 1 V)
DC measurement	
Resistance	: 400 μΩ to 40 MΩ
Capacitance	: 4 μF to 400 mF
AC measurement (flying probe unit)	
Resistance	: 100 Ω to 100 MΩ
Capacitance	: 10 fF to 10 μF
Inductance	: 10 μH to 100 H

[Mechanism part]

■ Flying Probe Unit

Number of arms	: Two arms (L, R)
Work area	: 70×70 mm
Range of XY movement	: 320×100 mm
Minimum pad diameter	: 20 μm
Minimum pitch of probes	: 0.1 mm (between the left and right arms when using a link-type probe)

■ Test Head Elevating Unit

Maximum installed test heads	: 2 (1118-01), 1 (1118-11)
Horizontal probing precision	: Within ±100 μm
Horizontal repeatability precision	: Within ±20 μm

[General specifications]

Power supply voltage	: 200/220/230/240VAC single-phase (50/60 Hz) Specify at time of shipment
Consumption power	: 3kVA
Operating temperature and humidity range	: 23°C ±10°C, 70%rh max.(with no condensation)
Storage temperature and humidity range	: 10 °C to 43 °C, 80% rh max. (with no condensation) : Main unit 23 °C ±10 °C, 70% rh max. (with no condensation) : Test heads

■ Test types

Test type	Test item
Tests for conductivity	Continuity test
	Step test
Tests for insulation	Insulation test 1*
	Insulation test 2*
	Step test
Tests for Component	Step test

* : Test conditions for the insulation test 1 and 2 can be set separately.

■ Testable Boards

Board size	: 1118-01; 10×10–70×250 mm 1118-11; 10×10–250×330 mm
Board thickness	: 0.3–3.2 mm

■ Test Heads

Probing area	: 10×10–70×70mm
Maximum number of probes	: 4096
Minimum pitch	: 4-terminal measurement probes: 1.0 mm Fine pitch probes: 0.2 mm

■ Transport Unit

Number of board transport shuttles	: 2 (1118-01), 1 (1118-11)
XY repeatability precision	: Within ±5 μm

■ Positioning Correction : Automatic positioning correction

Location for use	: Room: Do not operate in a dusty environment, an area subject to vibration, an atmosphere containing corrosive gas, or the like Floor strength: At least 500 kg/m ²
Applied air	: 0.5 to 0.99 Mpa (dry air)
Air consumption	: Up to 0.3 NI/min
Dimensions	: Approx. 1630 (W) × 1600 (H) × 1810 (D) mm (excluding protruding parts)
Mass	: Approx. 1500 kg

1118-01 X-Y INTEGRATED HiTESTER (double shuttle)

1118-11 X-Y INTEGRATED HiTESTER (single shuttle)

Factory Options

	1118-01		1118-11
	for R SHUTTLE	for L SHUTTLE	
VACUUM UNIT	1948-03	1948-04	1948-05
BOTTOM SIDE ALIGNMENT CAMERA	1940-43	1940-44	1940-45
BOTTOM SIDE ROTATION ALIGNMENT UNIT	1948-13	1948-14	1948-17
STAMP UNIT	1941-41	1941-42	1941-43
STAMP UNIT WITH THE CAP	1941-45	1941-46	1941-47
COAXIAL DOWNWARD ILLUMINATION UNIT	1945-33	1945-34	1945-35
ION BLOW UNIT	1910-03		1910-04

	1118-01/1118-11	
	for R ARM	for L ARM
COAXIAL DOWNWARD ILLUMINATION UNIT	1945-31	1945-32
1.2 POWER LENS UNIT	1947-31	1947-32

1138-01	SCANNER BOARD (256ch units)
1139-04	1118 DATA COMPOSITION SOFTWARE
1139-54	FL-LINK5 FLY-LINE LINK SOFTWARE
1152-02	512 SCANNER CABLE
1165-04	TEST HEAD
1166-03	BOARD FIXING UNIT
1330-04	MEASUREMENT UNIT CALIBRATION UNIT
1355-01	VACUUM PUMP
1356	MAINTENANCE TOOL SET
1911-01	SCANNER EXTENSION UNIT
1944-01	EXTENSION I/O BOARD
1946-05	MONITOR CAMERA

Options

1134-02	IMPRESSION SHEET (1 box supplied as standard accessory)
1196	PRINTER PAPER
1350-04	OFFSET BOARD (2 boards supplied as standard accessories)
1172-66	LINK PROBE
1172-67	DOUBLE LINK PROBE
1172-68	LINK PROBE WITH BLADE
1172-69	DOUBLE LINK PROBE WITH BLADE
1172-74	PROBE FOR CALIBRATION
1172-80	PROBE (3 mm stroke)
1172-81	LINK PROBE (high-speed version)
1172-83	DOUBLE LINK PROBE (35 μm between terminals)

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