

1MHz to 300MHz Measurement Frequency at High Speeds with Superior Repeatability

IMPEDANCE ANALYZER IM7580

New



LAN

USB_{2.0}

GP-IB
option

RS-232C
option



- 1 MHz to 300 MHz testing source frequency
- Fastest test speed of 0.5 msec
- $\pm 0.72\%$ rdg. basic accuracy
- Compact, half-rack footprint with space-saving test head
- Comprehensive contact check (via DCR testing, Hi-Z reject or waveform judgment)
- Make frequency sweeps, level sweeps and time interval measurements in Analyzer Mode

Order Code: **IM7580** (connection cable 1 m is bundled)
IM7580-02 (connection cable 2 m is bundled)

The instrument does not ship with a test fixture or probe. A test fixture designed specifically for use with the Impedance Analyzer IM7580 is required.

Basic specifications (Accuracy guaranteed for 1 year, Post-adjustment accuracy guaranteed for 1 year)

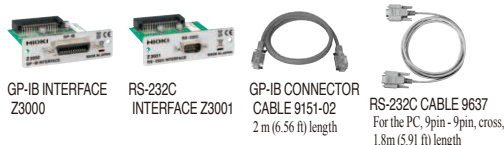
Measurement modes	LCR mode, Analyzer mode (Sweeps with measurement frequency and measurement level), Continuous measurement mode
Measurement parameters	Z, Y, θ , Rs (ESR), Rp, X, G, B, Cs, Cp, Ls, Lp, D (tan δ), Q
Measurable range	100 m Ω to 5 k Ω
Display range	Z: 0.00 m to 9.99999 G Ω / Rs, Rp, X: \pm (0.00 m to 9.99999 G Ω) Ls, Lp: \pm (0.00000 n to 9.99999 GH) / Q: \pm (0.00 to 9999.99) θ : \pm (0.000 $^\circ$ to 999.999 $^\circ$), Cs, Cp: \pm (0.00000 p to 9.99999 GF) D: \pm (0.00000 to 9.99999), Y: (0.000 n to 9.99999 GS) G, B: \pm (0.000 n to 9.99999 GS), $\Delta\%$: \pm (0.000 % to 999.999 %)
Basic accuracy	Z: $\pm 0.72\%$ rdg. θ : $\pm 0.41^\circ$
Measurement frequency	1 MHz to 300 MHz (100 Hz to 10 kHz steps)
Measurement signal level	Power: -40.0 dBm to +7.0 dBm Voltage: 4 mV to 1001 mV Current: 0.09 mA to 20.02 mA User-configured power, voltage, and current
Output impedance	50 Ω (at 10 MHz)
Display	8.4-inch color TFT with touch screen
Measurement speeds *1	FAST: 0.5 ms / MED: 0.9 ms / SLOW: 2.1 ms / SLOW2: 3.7 ms *1 Analog measurement time
Functions	Contact check, Comparator, BIN measurement (classification), Panel loading/saving, Memory function, Equivalent circuit analysis, Correlation compensation
Interfaces	Handler, USB, LAN, GP-IB (optional), RS-232C (optional)
Power supply	100 to 240 V AC, 50/60 Hz, 70 VA max.
Dimensions and mass	Main unit: 215 mm (8.46 in) W \times 200 mm (7.87 in) H \times 268 mm (10.55 in) D, 6.5 kg (229.3 oz) Test head: 61 mm (2.40 in) W \times 55 mm (2.17 in) H \times 24 mm (0.94 in) D, 175 g (6.2 oz)
Accessories	Test head \times 1, Connection cable \times 1, Power cord \times 1, Instruction manual \times 1, LCR application disc (Communications user manual) \times 1

Probe and Test fixtures

Available soon

- TEST FIXTURE STAND IM9200
- ADAPTER(3.5mm/7mm) IM9906
- SMD TEST FIXTURE IM9201

PC communication



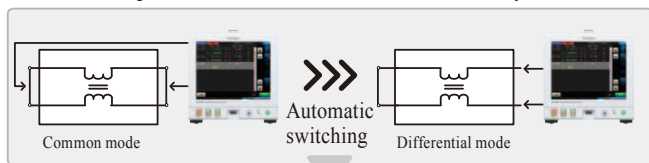
Applications with the IM7580...Common-mode filter measurement

*Please see the individual product catalog for more information

Panel save and continuous measurement

When one component must be measured two different ways or when compensation values and measurement conditions differ for each measurement point, the IM7580 streamlines the measurement process by automatically switching among compensation values and measurement conditions.

When one component must be measured two different ways

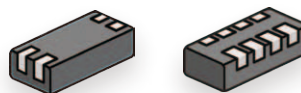


Halve cycle times by using two instruments...

Thanks to a compact design, two IM7580s can be stored in one rack. Using two impedance analyzers simultaneously can dramatically reduce cycle times.



When compensation values and measurement conditions differ for each measurement point



Applications with the IM7580...PASS/FAIL judgments for power inductors

*Please see the individual product catalog for more information

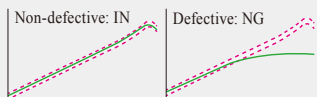
Comparator function

By using the comparator function's area and peak judgment functions, you can easily differentiate between defective and non-defective components.



Area judgment

Set the judgment area and then check whether component measurement results fall inside that area. This approach is well suited to differentiating between defective and non-defective components.



As illustrated to the left, you can set a range around the peak value and use it to make judgments.



Measure Electrochemical Components and Materials, Batteries, and EDLCs* (*Electric double-layer capacitors)

CHEMICAL IMPEDANCE ANALYZER IM3590



- USB 2.0**
- LAN** option
- GP-IB** option
- RS-232C** option
- CE**

- Broad 1 mHz to 200 kHz signal source range supports measurements of ion behavior and solution resistance
- Continuous measuring and high-speed testing of LCR and sweep measurements with a single instrument
- Measure internal impedance of batteries with no load
- Perform high-speed sweep measurements in as little as 2 ms
- Basic accuracy of $\pm 0.05\%$ is ideal for applications from component testing to R&D
- Measure LCR impedance for Cole-Cole plots and equivalent-circuit analyses of electrochemical components and materials

Order Code: IM3590

*This product is not supplied with measurement probes or test fixtures. Please select and purchase the measurement probe or test fixture options appropriate for your application separately.
For an RS-232C connection: A crossover cable for interconnection can be used. You can use the RS-232C Cable 9637 without hardware flow control.*

Basic specifications (Accuracy guaranteed for 1 year, Post-adjustment accuracy guaranteed for 1 year)

Measurement modes	LCR mode, Continuous measurement mode (LCR mode / Analyzer mode), Analyzer mode (Sweeps with measurement frequency and measurement level, temperature characteristics, equivalent circuit analysis)
Measurement parameters	Z, Y, θ , Rs (ESR), Rp, Rdc (DC resistance), X, G, B, Cs, Cp, Ls, Lp, D (tan δ), Q, T, σ (conductivity), ϵ (dielectric constant)
Measurement range	100 m Ω to 100 M Ω , 10 ranges (All parameters are determined according to Z)
Display range	Z, Y, Rs, Rp, Rdc, X, G, B, Ls, Lp, Cs, Cp, σ , ϵ : $\pm(0.00000$ [unit] to 9.999999 [unit], Absolute value display for Z and Y only θ : $\pm(0.000^\circ$ to $999.999^\circ)$, D : $\pm(0.00000$ to $9.99999)$ Q : $\pm(0.00$ to $99999.9)$, Δ % : $\pm(0.00000\%$ to 999.999%) T : -10.0°C to 99.9°C σ , ϵ : $\pm(0.00000$ [unit] to 999.999 [unit])
Basic accuracy	Z: $\pm 0.05\%$ rdg. θ : $\pm 0.03^\circ$
Measurement frequency	1 mHz to 200 kHz (1 mHz to 10 Hz steps)
Measurement signal level	Normal mode: V mode/CV mode: 5 mV to 5 Vrms, 1 mVrms steps CC mode: 10 μA to 50 mArms, 10 μArms steps Low impedance high accuracy mode: V mode/CV mode: 5 mV to 2.5 Vrms, 1 mVrms steps CC mode: 10 μA to 100 mArms, 10 μArms steps
Output impedance	Normal mode: 100 Ω , Low impedance high accuracy mode: 25 Ω
Display	5.7-inch color TFT, display can be set to ON/OFF
Measurement time	2 ms (1 kHz, FAST, display OFF, representative value)
Functions	DC bias measurement, DC resistance temperature compensation (converted reference temperature is displayed), Temperature measurement, Battery measurement (Automatic DC biasing system), Comparator, BIN measurement (classification), Panel loading/saving, Memory function
Interfaces	EXT I/O (Handler), USB communication (high-speed), USB memory Optional: Choose 1 from RS-232C, GP-IB, or LAN
Power supply	100 to 240 V AC, 50/60 Hz, 50 VA max.
Dimensions and mass	330 mm (12.99 in) W \times 119 mm (4.69 in) H \times 168 mm (6.61 in) D, 3.1 kg (109.3 oz)
Accessories	Power cord \times 1, Instruction manual \times 1, CD-R (Communication instruction manual and sample software [Communications control, accuracy calculation, and screen capture functionality]) \times 1

Shared options for IM3590, IM3533, IM3523

*Please see the individual product catalog for more information

Probe and Test fixtures								
	SMD TEST FIXTURE IM9100 Direct connection type, For measuring SMDs with electrodes on the bottom, DC to 8 MHz, Measurable sample sizes: 01005 to 0402 (EIA), 0402 to 1005 (JIS)	4-TERMINAL PROBE L2000 Cable length 1 m (3.28 ft), DC to 8 MHz, impedance characteristics of 50 Ω , 4-terminal pair configuration, measurable conductor diameter: $\phi 0.3$ (0.01 in) to 5 mm (0.20 in)	PINCHER PROBE L2001 Cable length 73 cm (28.74 ft), DC to 8 MHz, impedance characteristics of 50 Ω , 4-terminal pair configuration, tip electrode spacing: 0.3 (0.01 in) to 6 mm (0.24 in)	CONTACT TIPS IM9901 To replace the tip on the L2001, regular size, bundled with the L2001	CONTACT TIPS IM9902 To replace the tip on the L2001, small size	4-TERMINAL PROBE 9140-10 Cable length 1 m (3.28 ft), DC to 200 kHz, 50 Ω , measurable conductor diameter: $\phi 0.3$ mm (0.01 in) to 5 mm (0.20 in)	TEST FIXTURE 9261-10 Cable length 1 m (3.28 ft), DC to 8 MHz, impedance characteristics of 50 Ω , 4-terminal pair configuration, measurable conductor diameter: $\phi 0.3$ (0.01 in) to 1.5 mm (0.06 in)	TEST FIXTURE 9262 Direct connection type, DC to 8 MHz, measurable conductor diameter: $\phi 0.3$ (0.01 in) to 2 mm (0.08 in)
					When using the 9268-10 or 9269-10, external constant-voltage and constant-current sources are required.			
	SMD TEST FIXTURE 9263 Direct connection type, DC to 8 MHz, Test sample dimensions: 1 mm (0.04 in) to 10 mm (0.39 in)	4-TERMINAL PROBE 9500-10 Cable length 1 m (3.28 ft), DC to 200 kHz, impedance characteristics of 50 Ω , measurable conductor diameter: $\phi 0.3$ mm (0.01 in) to 2 mm (0.08 in)	SMD TEST FIXTURE 9677 Direct connection type, For measuring SMDs with electrodes on the side, DC to 120 MHz, test sample dimensions: 3.5 mm \pm 0.5 mm (0.14 in \pm 0.02 in)	SMD TEST FIXTURE 9699 Direct connection type, For measuring SMDs with electrodes on the bottom, DC to 120 MHz, test sample dimensions: 1.0 mm (0.04 in) to 4.0 mm (0.16 in) wide, max. 1.5 mm (0.06 in) high	DC BIAS VOLTAGE UNIT 9268-10 Direct connection type, 40 Hz to 8 MHz, maximum applied voltage of DC ≤ 40 V	DC BIAS CURRENT UNIT 9269-10 Direct connection type, 40 Hz to 2 MHz, maximum applied current of DC 2 A	 SHEATH TYPE TEMPERATURE PROBE 9478 Pt100, Tip dia. $\phi 2.3$ mm (0.09 in), Cord length 1 m (3.28 ft), Waterproof construction	

*Use with only for the IM3590, IM3533

PC communication				
	GP-IB INTERFACE Z3000	RS-232C INTERFACE Z3001	LAN INTERFACE Z3002	GP-IB CONNECTOR CABLE 9151-02 2 m (6.56 ft) length

Single Device Solution for High Speed Testing and Frequency Sweeping

IMPEDANCE ANALYZER IM3570



LAN

USB 2.0

GP-IB

RS-232C



- LCR measurement, DCR measurement, sweep measurement, continuous measurement and high-speed testing achieved with one instrument
- High-speed testing, achieving maximum speeds of 1.5ms (1 kHz) and 0.5ms (100kHz) in LCR mode
- High-accuracy measurements, basic accuracy of Z parameter: $\pm 0.08\%$
- Perfect impedance analyzer for testing the resonance characteristics of piezoelectric elements, C-D and low ESR measurement of functional polymer capacitors, DCR and L-Q measurement of inductors (coils and transformers)
- Perform frequency sweeps, level sweeps, and time interval measurements in analyzer mode

Order Code: IM3570

This product is not supplied with measurement probes or test fixtures. Please select and purchase the measurement probe or test fixture options appropriate for your application separately. For an RS-232C connection: A crossover cable for interconnection can be used. You can use the RS-232C CABLE 9637 without hardware flow control.

Basic specifications (Accuracy guaranteed for 1 year, Post-adjustment accuracy guaranteed for 1 year)

Measurement modes	LCR mode, Analyzer mode (Sweeps with measurement frequency and measurement level), Continuous measurement mode
Measurement parameters	Z, Y, θ , Rs (ESR), Rp, Rdc (DC resistance), X, G, B, Cs, Cp, Ls, Lp, D ($\tan\delta$), Q
Measurement range	100 m Ω to 100 M Ω , 12 ranges (All parameters are determined according to Z)
Display range	Z, Y, Rs, Rp, Rdc, X, G, B, Ls, Lp, Cs, Cp : $\pm(0.000000 [\text{unit}] \text{ to } 9.999999\text{G} [\text{unit}])$, Absolute value display for Z and Y only θ : $\pm(0.000^\circ \text{ to } 999.999^\circ)$, D : $\pm(0.000000 \text{ to } 9.999999)$ Q : $\pm(0.00 \text{ to } 99999.99)$, Δ % : $\pm(0.00000\% \text{ to } 999.9999\%)$
Basic accuracy	Z $\pm 0.08\%$ rdg. θ : $\pm 0.05^\circ$
Measurement frequency	4 Hz to 5 MHz (10 mHz to 100 Hz steps)
Measurement signal level	Normal mode: V mode/CV mode: 5 mV to 5 Vrms (up to 1 MHz) 10 mV to 1 Vrms (1.0001 MHz to 5 MHz), 1 mVrms steps CC mode: 10 μ A to 50 mArms (up to 1 MHz) 10 μ A to 10 mArms (1.0001 MHz to 5 MHz), 10 μ Arms steps Low impedance high accuracy mode: V mode/CV mode: 5 mV to 1 Vrms (up to 100 kHz), 1 mVrms steps CC mode: 10 μ A to 100 mArms (100 m Ω and 1 Ω ranges of up to 100 kHz), 10 μ Arms steps
Output impedance	Normal mode: 100 Ω , Low impedance high accuracy mode: 10 Ω
Display	5.7-inch color TFT, display can be set to ON/OFF
Measurement time	0.5 ms (100 kHz, FAST, display OFF, representative value)
Functions	DC bias measurement, Comparator, BIN measurement (classification), Panel loading/saving, Memory function
Interfaces	EXT I/O (handler), RS-232C, GP-IB, USB communication, USB memory, LAN
Power supply	90 to 264 V AC, 50/60 Hz, 150 VA max.
Dimensions and mass	330 mm (12.99 in) W \times 119 mm (4.69 in) H \times 307 mm (12.09 in) D, 5.8 kg (204.6 oz)
Accessories	Power cord \times 1, Instruction manual \times 1, PC communication instruction manual (CD-R) \times 1

LCR Meters

Probe and Test fixtures

- SMD TEST FIXTURE IM9100**
Direct connection type, For measuring SMDs with electrodes on the bottom, DC to 8 MHz, Measurable sample sizes: 01005 to 0402 (EIA), 0402 to 1005 (JIS)
- 4-TERMINAL PROBE L2000**
Cable length 1 m (3.28 ft), DC to 8 MHz, impedance characteristics of 50 Ω , 4-terminal pair configuration, measurable conductor diameter: $\phi 0.3$ (0.01 in) to 5 mm (0.20 in)
- PINCHER PROBE L2001**
Cable length 73 cm (28.74 ft), DC to 8 MHz, impedance characteristics of 50 Ω , 4-terminal pair configuration, tip electrode spacing: 0.3 (0.01 in) to 6 mm (0.24 in)
- CONTACT TIPS IM9901**
To replace the tip on the L2001, regular size, bundled with the L2001
- CONTACT TIPS IM9902**
To replace the tip on the L2001, small size
- 4-TERMINAL PROBE 9140-10**
Cable length 1 m (3.28 ft), DC to 200 kHz, 50 Ω , measurable conductor diameter: $\phi 0.3$ mm (0.01 in) to 5 mm (0.20 in)
- TEST FIXTURE 9261-10**
Cable length 1 m (3.28 ft), DC to 8 MHz, impedance characteristics of 50 Ω , 4-terminal pair configuration, measurable conductor diameter: $\phi 0.3$ (0.01 in) to 1.5 mm (0.06 in)
- TEST FIXTURE 9262**
Direct connection type, DC to 8 MHz, measurable conductor diameter: $\phi 0.3$ (0.01 in) to 2 mm (0.08 in)
- SMD TEST FIXTURE 9263**
Direct connection type, DC to 8 MHz, Test sample dimensions: 1 mm (0.04 in) to 10 mm (0.39 in)
- 4-TERMINAL PROBE 9500-10**
Cable length 1 m (3.28 ft), DC to 200 kHz, impedance characteristics of 50 Ω , measurable conductor diameter: $\phi 0.3$ mm (0.01 in) to 2 mm (0.08 in)
- SMD TEST FIXTURE 9677**
Direct connection type, For measuring SMDs with electrodes on the side; DC to 120 MHz, test sample dimensions: 3.5 mm ± 0.5 mm (0.14 in ± 0.02 in)
- SMD TEST FIXTURE 9699**
Direct connection type, For measuring SMDs with electrodes on the bottom; DC to 120 MHz, test sample dimensions: 1.0 mm (0.04 in) to 4.0 mm (0.16 in) wide, max. 1.5 mm (0.06 in) high
- DC BIAS VOLTAGE UNIT 9268-10**
Direct connection type, 40 Hz to 8 MHz, maximum applied voltage of DC ± 40 V
- DC BIAS CURRENT UNIT 9269-10**
Direct connection type, 40 Hz to 2 MHz, maximum applied current of DC 2 A

PC communication

- GP-IB CONNECTOR CABLE 9151-02**
2 m (6.56 ft) length

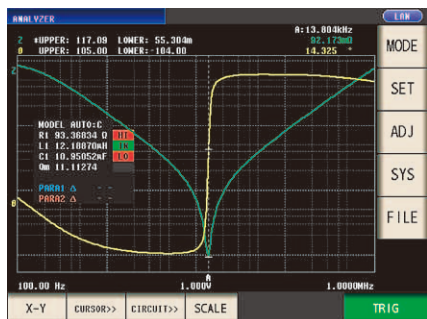
Factory-installed option

EQUIVALENT CIRCUIT ANALYSIS FIRMWARE IM9000
For the IM3570 (Factory-installed option)

Note: Customers who have purchased the Impedance Analyzer IM3570 can add the Equivalent Circuit Analysis Firmware IM9000 function. Please contact your local HIOKI representative.

Simple Circuit Analysis & Detailed Acceptance/Rejection Decision-Making

EQUIVALENT CIRCUIT ANALYSIS FIRMWARE IM9000



- The IM9000 can automatically select the equivalent circuit model from the five typical models to minimize the differences between the measured values and the ideal frequency characteristics derived from the analysis results
- An acceptance/rejection decision can be made for the L, C, and R elements comprising a part and the resonance sharpness (mechanical quality coefficient)
- A detailed decision can be made on the elements using the resonance of a piezoelectric element or inductor

Order Code: IM9000 (factory option firmware for the IM3570)

Note: The IM9000 is not included in the standard package. If you want to use the IM9000 function, specify the option upon purchase. Customers who have purchased the Impedance Analyzer IM3570 can add the Equivalent Circuit Analysis Firmware IM9000 function. Please contact your local HIOKI representative.

Basic specifications

Three-element model	Equivalent circuit model: Four models for Coil, Resistance, Capacitor Measurement items: L1 (Inductance), C1 (Capacitance), R1 (Resistance), Qm (Resonance sharpness), fr (Resonance frequency) / fa (Anti-resonance frequency)
Four-element model	Equivalent circuit model: One model for Piezoelectric element Measurement items: L1 (Inductance), C1 (Capacitance), R1 (Resistance), C0 (Parallel capacitance), Qm (Resonance sharpness or mechanical quality coefficient) fr (Resonance frequency), fa (Anti-resonance frequency), fs (Series resonance frequency), fp (Parallel resonance frequency), fm (Maximum admittance frequency), fn (Minimum admittance frequency), fl (Maximum susceptance frequency), f2 (Minimum susceptance frequency)
Other functions	Simulation: Enables displaying and comparing the ideal frequency characteristics graph derived from the analysis results or the values specified by the user Comparator: Runs a comparator on the analysis results and outputs the decision results to screen, EXT. I/O
X-Y display	Cole-Cole plot, Admittance circle display

Measurement Frequency from DC, 4Hz to 8MHz

LCR METER IM3536

New



LAN

USB_{2.0}

GP-IB

RS-232C

CE

- DC, 4Hz to 8MHz measurement frequency
- High-speed measurement of 1ms (fastest time)
- High-precision measurement of $\pm 0.05\%$ rdg. (representative value)
- Guaranteed accuracy range from 1 m Ω , low-impedance measurement with unmatched repeatability
- DC bias function: Measure under conditions simulating actual use or in accordance with industry standards
- Exceptional specifications and cost-performance for a wide range of applications, from R&D to production lines

Order Code: IM3536

Note: Test fixtures are not supplied with the instrument. Select optional test fixtures or probes when ordering.

Basic specifications (Accuracy guaranteed for 1 year, Post-adjustment accuracy guaranteed for 1 year)

Measurement modes	LCR mode, Continuous measurement mode
Measurement parameters	Z, Y, θ , X, G, B, Q, Rdc (DC resistance), Rs (ESR), Rp, Ls, Lp, Cs, Cp, D (tan δ), σ , ϵ
Measurement range	100 m Ω to 100 M Ω , 10 ranges (All parameters are determined according to Z)
Display range	Z: 0.00 m to 9.99999 G Ω , Rs, Rp, Rdc, X: $\pm(0.00$ m to 9.99999 G Ω) G, B: $\pm(0.000$ n to 9.99999 GS), Ls, Lp: $\pm(0.00000$ μ to 9.99999 GH), Cs, Cp: $\pm(0.0000$ p to 9.99999 GF), Y: 0.000 n to 9.99999 GS, θ : $\pm(0.000^\circ$ to 999.999 $^\circ$), Q: $\pm(0.00$ to 9999.99), D: $\pm(0.00000$ to 9.99999), Δ %: $\pm(0.000$ % to 999.999%)
Basic accuracy	Z $\pm 0.05\%$ rdg. θ : $\pm 0.03^\circ$ (representative value, Measurable range: 1 m Ω to 200 M Ω)
Measurement frequency	4 Hz to 8 MHz (10 mHz to 100 Hz steps)
Measurement signal level	[Normal mode: V mode/CV mode] 4 Hz to 1.0000 MHz: 10 mV to 5 V (maximum 50 mA) 1.0001 MHz to 8 MHz: 10 mV to 1 V (maximum 10 mA) [Low impedance high accuracy mode: V mode/CV mode] 4 Hz to 1.0000 MHz: 10 mV to 1 V (maximum 100 mA) [Normal mode: CC mode] 4 Hz to 1.0000 MHz: 10 μ A to 50 mA (maximum 5 V) 1.0001 MHz to 8 MHz: 10 μ A to 10 mA (maximum 1 V) [Low impedance high accuracy mode: CC mode] 4 Hz to 1.0000 MHz: 10 μ A to 100 mA (maximum 1 V) [DC resistance measurement] Measurement signal level: Fixed at 1 V
DC bias measurement	Generating range: DC voltage 0 V to 2.50 V (10mV resolution) In low Z high accuracy mode: 0 V to 1 V (10 mV resolution)
Output impedance	Normal mode: 100 Ω , Low impedance high accuracy mode: 10 Ω
Display	5.7-inch color TFT with touch panel
Functions	Comparator, BIN measurement (10 categories for 2 measurement parameters), Trigger function, Open/short compensation, Contact check, Panel loading/saving, Memory function
Interfaces	EXT. I/O (HANDLER), USB, USB flash drive, LAN, GP-IB, RS-232C, BCD
Power supply	100 to 240 V AC, 50/60 Hz, 50 VA max.
Dimensions and mass	330 mm (12.99 in) W \times 119 mm (4.69 in) H \times 230 mm (9.06 in) D, 4.2 kg (148.1 oz)
Accessories	Power cord \times 1, Instruction manual \times 1, LCR application disc (Communications user manual) \times 1

LCR Meters

SMD TEST FIXTURE IM9100
Direct connection type, For measuring SMDs with electrodes on the bottom, DC to 8 MHz, Measurable sample sizes: 01005 to 0402 (EIA), 0402 to 1005 (JIS)

4-TERMINAL PROBE L2000
Cable length 1 m (3.28 ft), DC to 8 MHz, impedance characteristics of 50 Ω , 4-terminal pair configuration, measurable conductor diameter: ϕ 0.3 (0.01 in) to 5 mm (0.20 in)

PINCHER PROBE L2001
Cable length 73 cm (28.74 ft), DC to 8 MHz, impedance characteristics of 50 Ω , 4-terminal pair configuration, tip electrode spacing: 0.3 (0.01 in) to 6 mm (0.24 in)

CONTACT TIPS IM9901
To replace the tip on the L2001, regular size, bundled with the L2001

CONTACT TIPS IM9902
To replace the tip on the L2001, small size

4-TERMINAL PROBE 9140-10
Cable length 1 m (3.28 ft), DC to 200 kHz, 50 Ω , measurable conductor diameter: ϕ 0.3 mm (0.01 in) to 5 mm (0.20 in)

TEST FIXTURE 9261-10
Cable length 1 m (3.28 ft), DC to 8 MHz, impedance characteristics of 50 Ω , 4-terminal pair configuration, measurable conductor diameter: ϕ 0.3 (0.01 in) to 1.5 mm (0.06 in)

TEST FIXTURE 9262
Direct connection type, DC to 8 MHz, measurable conductor diameter: ϕ 0.3 (0.01 in) to 2 mm (0.08 in)

SMD TEST FIXTURE 9263
Direct connection type, DC to 8 MHz, Test sample dimensions: 1 mm (0.04 in) to 10 mm (0.39 in)

4-TERMINAL PROBE 9500-10
Cable length 1 m (3.28 ft), DC to 200 kHz, impedance characteristics of 50 Ω , measurable conductor diameter: ϕ 0.3 mm (0.01 in) to 2 mm (0.08 in)

SMD TEST FIXTURE 9677
Direct connection type, For measuring SMDs with electrodes on the side; DC to 120 MHz, test sample dimensions: 3.5 mm \pm 0.5 mm (0.14 in \pm 0.02 in)

SMD TEST FIXTURE 9699
Direct connection type, For measuring SMDs with electrodes on the bottom; DC to 120 MHz, test sample dimensions: 1.0 mm (0.04 in) to 4.0 mm (0.16 in) wide, max. 1.5 mm (0.06 in) high

DC BIAS VOLTAGE UNIT 9268-10
Direct connection type, 40 Hz to 8 MHz, maximum applied voltage of DC \leq 40 V

DC BIAS CURRENT UNIT 9269-10
Direct connection type, 40 Hz to 2 MHz, maximum applied current of DC \leq 2 A

RS-232C CABLE 9637
1.8 m (5.91 ft) length

GP-IB CONNECTOR CABLE 9151-02
2 m (6.56 ft) length

When using the 9268-10 or 9269-10, external constant-voltage and constant-current sources are required.

Ideal for Production Lines and Automated Testing

LCR METER IM3523



USB_{2.0}

LAN option

GP-IB option

RS-232C option

CE

- $\pm 0.05\%$ accuracy with wide measurement range (DC, 40Hz to 200kHz, 5mV to 5V, 10 μ A to 50mA)
- Non-stop testing over mixed measurement conditions such as C-D and ESR at 10 times the speed of previous models (compared with Model 3532-50)
- Built-in comparator and BIN functions
- Rapid 2msec test time

Order Code: IM3523

This product is not supplied with measurement probes or test fixtures. Please select and purchase the measurement probe or test fixture options appropriate for your application separately. All probes are constructed with a 1.5D-2V coaxial cable. For an RS-232C connection: A crossover cable for interconnection can be used. You can use the RS-232C CABLE 9637 without hardware flow control.

Basic specifications (Accuracy guaranteed for 1 year, Post-adjustment accuracy guaranteed for 1 year)

Measurement modes	LCR, Continuous testing
Measurement parameters	Z, Y, θ , Rs (ESR), Rp, DCR (DC resistance), X, G, B, Cs, Cp, Ls, Lp, D (tan δ), Q
Measurement range	100 m Ω to 100 M Ω , 10 ranges (All parameters defined in terms of Z)
Displayable range	Z, Y, Rs, Rp, Rdc, X, G, B, Ls, Lp, Cs, Cp : $\pm(0.00000$ [unit] to 9.99999 [unit]) Real value display for Z and Y only θ : $\pm(0.000^\circ$ to 999.999 $^\circ$), D: $\pm(0.00000$ to 9.99999) Q: $\pm(0.00$ to 99999.9), Δ %: $\pm(0.00000$ % to 999.999%)
Basic accuracy	Z: $\pm 0.05\%$ rdg. θ : $\pm 0.03^\circ$
Measurement frequency	40 Hz to 200 kHz (1 mHz to 10 Hz steps)
Measurement signal level	[Normal mode] V mode, CV mode: 5 mV to 5 Vrms, 1 mVrms steps CC mode: 10 μ A to 50 mA rms, 10 μ A rms steps
Output impedance	Normal mode: 100 Ω
Display	Monochrome LCD
Measurement time	2 ms (1 kHz, FAST, representative value)
Functions	Comparator, BIN measurement (classify function), Panel loading/saving, Memory function
Interfaces	EXT I/O (handler), USB communication (high-speed) Optional: Choose 1 from RS-232C, GP-IB, or LAN
Power supply	100 to 240 V AC, 50/60 Hz, 50 VA max
Dimensions and mass	260 mm (10.24 in) W \times 88 mm (3.46 in) H \times 203 mm (7.99 in) D, 2.4 kg (84.7 oz)
Accessories	Power cord \times 1, Instruction manual \times 1, CD-R (Includes PC commands and sample software) \times 1

IM3590, IM3533, IM3523 shared options

Please see shared options for model IM3590

From R&D Applications to Windings, Coil and Transformer Manufacturing

LCR METER IM3533



USB2.0/

LAN/

GP-IB/

RS-232C/

CE

- ±0.05% accuracy with wide measurement range (DC, 40Hz to 200kHz, 5mV to 5V, 10uA to 50mA)
- Non-stop testing over mixed measurement conditions such as C-D and ESR at 10 times the speed of previous models
- Built-in low impedance high precision mode effective for testing low inductance or the ESR of aluminum electrolysis capacitance (10x the measurement speed and dramatic improvements in repeatability and stability over the previous model 3522-50)
- Dedicated modes for measuring transformer winding ratio, mutual inductance and temperature compensated DCR
- Frequency sweep testing (IM3533-01 only)
- 2m/4m cable setting in addition to the standard 0m/1m

Order Code: IM3533 (basic model)
IM3533-01 (added more functional model)

This product is not supplied with measurement probes or test fixtures. Please select and purchase the measurement probe or test fixture options appropriate for your application separately. All probes are constructed with a 1.5D-2V coaxial cable.
For an RS-232C connection: A crossover cable for interconnection can be used. You can use the RS-232C CABLE 9637 without hardware flow control.

Basic specifications (Accuracy guaranteed for 1 year, Post-adjustment accuracy guaranteed for 1 year)

	IM3533	IM3533-01
Measurement modes	LCR, Transformer testing (N, M, ΔL), Continuous testing (LCR mode)	LCR, Transformer testing (N, M, ΔL), Analyzer (sweep testing), Continuous Testing (LCR/Analyzer mode)
Measurement parameters	Z, Y, θ, Rs (ESR), Rp, DCR (DC resistance), X, G, B, Cs, Cp, Ls, Lp, D (tanδ), Q, N, M, ΔL, T	
Measurement range	100 mΩ to 100 MΩ, 10 ranges (All parameters defined in terms of Z.)	
Displayable range	Z, Y, Rs, Rp, Rdc, X, G, B, Ls, Lp, Cs, Cp : ± (0.00000 [unit] to 9.99999G [unit]) Real value display for Z and Y only θ: ± (0.000° to 999.999°), D: ± (0.00000 to 9.99999) Q: ± (0.00 to 99999.9), Δ%: ± (0.0000% to 999.999%), T: -10.0°C to 99.9°C	
Basic accuracy	Z : ±0.05% rdg. θ : ±0.03°	
Measurement frequency	1 mHz to 200 kHz (1 mHz to 10 Hz steps)	
Measurement signal level	[Normal mode] V mode, CV mode: 5 mV to 5 Vrms, 1 mVrms steps CC mode: 10 μA to 50 mArms, 10 μArms steps [Low impedance high accuracy mode] V mode, CV mode: 5 mV to 2.5 Vrms, 1 mVrms steps CC mode: 10 μA to 100 mArms, 10 μArms steps	
Output impedance	Normal mode: 100 Ω, Low impedance high accuracy mode: 25 Ω	
Display	5.7-inch touch-screen color TFT, display can be set to ON/OFF	
Measurement time	2 ms (1 kHz, FAST, display OFF, representative value)	
Functions	DC bias measurement, DC resistance temperature compensation (converted reference temperature display), Comparator, BIN measurement (classify function), Panel loading/saving, Memory function	
Interfaces	EXT I/O (Handler), USB communication (high-speed), USB memory Optional: Choose 1 from RS-232C, GP-IB, or LAN	
Power supply	100 to 240 V AC, 50/60 Hz, 50 VA max	
Dimensions and mass	330 mm (12.99 in) W × 119 mm (4.69 in) H × 168 mm (6.61 in) D, 3.1 kg (109.3 oz)	
Accessories	Power cord ×1, Instruction manual ×1, CD-R (Includes PC commands and sample software) ×1	

IM3590, IM3533, IM3523 shared options

Please see shared options for model IM3590

Compact & Powerful Dedicated LCR Measurement in 5 msec Timeframes

LCR HITESTER 3511



GP-IB/

RS-232C/

CE

- High speed measurement: 5 ms (1 kHz) or 13 ms (120 Hz)
- Built-in high-speed comparator
- Measurement frequency: 1 kHz/120 Hz selectable
- From minute measurement with a maximum resolution of 0.01 pF to high-capacity measurement up to 1 F
- Print measured values and comparator results with the Printer 9442 (option)

Order Code: 3511-50

This product is not supplied with measurement probes or test fixtures. Please select and purchase the measurement probe or test fixture options appropriate for your application separately. For an RS-232C connection: A crossover cable for interconnection can be used. You can use the RS-232C CABLE 9637 without hardware flow control.

Basic specifications (Accuracy guaranteed for 6 months, Post-adjustment accuracy guaranteed for 6 months)

Measurement parameters	Z , θ, R, C, L, D (tanδ), Q
Measurement range	Z , R: 10 mΩ to 200.00 MΩ θ: -90.00° to +90.00° C (at 120 Hz): 9.40 pF to 999.99 mF, C (at 1 kHz): 0.940 pF to 99.999 mF L (at 120 Hz): 14.00 μH to 200.00 kH, L (at 1 kHz): 1.600 μH to 20.000 kH D: 0.0001 to 1.9900, Q: 0.85 to 999.99
Basic accuracy	Z : ±0.08 % rdg. θ : ±0.05°
Measurement frequency	120 Hz or 1 kHz
Measurement signal level	50 mV, 500 mV, 1 V rms
Output impedance	50 Ω
Display	LED (5-digit display, full-scale count depends on range)
Measurement time	Fast: 13 msec, Normal: 90 msec, Slow: 400 msec. (at 120 Hz) Fast: 5 msec, Normal: 60 msec, Slow: 300 msec. (at 1 kHz)
DC bias	DC voltage/DC current can be superimposed on the measurement signal. (Requires optional unit and external constant voltage source/constant current source.)
Functions	Panel save and load function, External input/Output (EXT. I/O), GP-IB (option) or RS-232C interface
Power supply	Selectable 100, 120, 220 or 240V AC ±10%, 50/60Hz, 20VA max.
Dimensions and mass	210 mm (8.27 in)W × 100 mm (3.94 in)H × 168 mm (6.61 in)D, 2.5 kg (88.2 oz)
Accessories	Instruction manual ×1, Power cord ×1, Spare fuse ×1

Probe and Test fixtures



SMD TEST FIXTURE IM9100
Direct connection type. For measuring SMDs with electrodes on the bottom. DC to 8 MHz. Measurable sample sizes: 01005 to 0402 (EIA), 0402 to 1005 (JIS)



PINCHER PROBE L2001
Cable length 73 cm (28.74 ft). DC to 8 MHz, impedance characteristics of 50 Ω. 4-terminal pair configuration, tip electrode spacing: 0.3 (0.01 in) to 6 mm (0.24 in)



CONTACT TIPS IM9901
To replace the tip on the L2001, regular size, bundled with the L2001



CONTACT TIPS IM9902
To replace the tip on the L2001, small size



SMD TEST FIXTURE 9699
Direct connection type. For measuring SMDs with electrodes on the bottom; DC to 120 MHz, test sample dimensions: 1.0 mm (0.04 in) to 4.0 mm (0.16 in) wide, max. 1.5 mm (0.06 in) high



SMD TEST FIXTURE 9677
Direct connection type. For measuring SMDs with electrodes on the side; DC to 120 MHz, test sample dimensions: 3.5 mm ±0.5 mm (0.14 in ±0.02 in)



SMD TEST FIXTURE 9263
Direct connection type, DC to 8 MHz, Test sample dimensions: 1 mm (0.04 in) to 10 mm (0.39 in)



TEST FIXTURE 9262
Direct connection type, DC to 8 MHz, measurable conductor diameter: ø0.3 (0.01 in) to 2 mm (0.08 in)

GP-IB INTERFACE 9518-01
Built into rear panel
GP-IB CONNECTOR CABLE 9151-02
2 m (6.56 ft) length



TEST FIXTURE 9261
Impedance characteristics of 75 Ω, 4-terminal configuration, Other specifications are the same as for the 9261-10



4-TERMINAL PROBE 9140
DC to 100 kHz, impedance characteristics of 75 Ω, 4-terminal configuration



DC BIAS CURRENT UNIT 9269
42 Hz to 100 kHz, Max. allowable current: ±2A DC



DC BIAS VOLTAGE UNIT 9268
42 Hz to 5 MHz, Max. allowable voltage: ±40 V DC



CONNECTION CORD 9166
Metal BNC to clip, 1.5 m (4.92 ft) length



CONNECTION CORD 9165
Cord has metallic BNC connectors at both ends, use at metallic terminal, 1.5 m (4.92 ft) length, not CE marked



PRINTER 9442
For printing numerical values 112 mm (4.41 in) paper width



AC ADAPTER 9443-02
For the Printer 9442, EU type



CONNECTION CABLE 9444
For the Printer 9442, 9 pin - 9 pin, 1.5 m (4.92 ft) length



RECORDING PAPER 1196
For the Printer 9442, 112 mm (4.41 in) × 25 m (82.03 ft), 10 rolls/set

High-speed 1MHz C Tester Delivering Super Precise Measurements Even from Low Capacitance Levels

C METER 3506-10



GP-IB

RS-232C



- High-speed analog test time of 0.6 ms (at 1 MHz)
- Improved noise resistance and enhanced repeatability in measurement precision even for production lines
- 1 kHz and 1 MHz measurement frequency supports stable low capacitance testing with taping machines
- BIN function, for easy component screening

Order Code: 3506-10

This product is not supplied with measurement probes or test fixtures. Please select and purchase the measurement probe or test fixture options appropriate for your application separately. For an RS-232C connection: A crossover cable for interconnection can be used. You can use the RS-232C cable 9637 without hardware flow control.

Basic specifications (Accuracy guaranteed for 1 year. Post-adjustment accuracy guaranteed for 1 year)

Measurement parameters	C (Capacitance), D (loss coefficient, tan δ), Q (1/tan δ)
Measurement range	C: 0.001 fF to 15.0000 μF, D: 0.00001 to 1.99999, Q: 0.0 to 19999.9
Basic accuracy	(Typ.) C: ±0.14 % rdg., D: ±0.0013
Measurement frequency	1 kHz, 1 MHz
Measurement signal level	500 mV, 1 V rms
Output impedance	1 Ω (at 1 kHz in 2.2 μF and higher ranges), 20 Ω (in ranges other than the above)
Display	LED (six digits, full scale count depends on measurement range)
Measurement time	1.5 ms: 1 MHz, 2.0 ms: 1 kHz
Functions	BIN (measurement values can be classified by rank), Trigger-synchronous output, Setting configurations can be stored, Comparator, Averaging, Low-C reject (bad contact detection), Chatter detection, Current detection circuit monitoring, Applied voltage value monitoring, EXT. I/O, RS-232C, GP-IB
Power supply	Selectable from 100, 120, 220 or 240 V AC ±10 %, 50/60 Hz 40 VA max.
Dimensions and mass	260 mm (10.24 in) W × 100 mm (3.94 in) H × 298 mm (11.73 in) D, 4.8 kg (10.6 lb)
Accessories	Power cord ×1, Instruction manual ×1, Spare fuse ×1

Printer options	PRINTER 9442 For printing numerical values 112 mm (4.41 in) paper width	RECORDING PAPER 1196 For the Printer 9442, 112 mm (4.41 in) × 25 m (82.03 ft), 10 rolls/set	PC communication	GP-IB CONNECTOR CABLE 9151-02 2 m (6.56 ft) length
	CONNECTION CABLE 9444 For the Printer 9442, 9 pin-9 pin, 1.5 m (4.92 ft) length			

Probe and Test fixtures	SMD TEST FIXTURE IM9100 Direct connection type. For measuring SMDs with electrodes on the bottom. DC to 8 MHz. Measurable sample sizes: 01005 to 0402 (EIA), 0402 to 1005 (JIS)	4-TERMINAL PROBE L2000 1 m (3.28 ft) Cable length. DC to 5 MHz, 50 Ω, measurable conductor diameter: φ0.3 mm (0.01 in) to 5 mm (0.20 in)	PINCHER PROBE L2001 Cable length 73 cm (28.74 ft), DC to 8 MHz, impedance characteristics of 50 Ω, 4-terminal pair configuration, tip electrode spacing: 0.3 (0.01 in) to 6 mm (0.24 in)	CONTACT TIPS IM9901 To replace the tip on the L2001, regular size, bundled with the L2001	CONTACT TIPS IM9902 To replace the tip on the L2001, small size	4-TERMINAL PROBE 9140-10 Cable length 1 m (3.28 ft), DC to 200 kHz, 50 Ω, measurable conductor diameter: φ0.3 mm (0.01 in) to 5 mm (0.20 in)	TEST FIXTURE 9261-10 Cable length 1 m (3.28 ft), DC to 5 MHz, 50 Ω, measurable conductor diameter: φ0.3 mm (0.01 in) to 1.5 mm (0.06 in)	TEST FIXTURE 9262 Direct connection type, DC to 5 MHz, measurable conductor diameter: φ0.3 mm (0.01 in) to 2 mm (0.08 in)
	SMD TEST FIXTURE 9263 Direct connection type, DC to 5 MHz, Test sample dimensions: 1 mm (0.04 in) to 10 mm (0.39 in)	SMD TEST FIXTURE 9677 Direct connection type. For measuring SMDs with electrodes on the side; DC to 120 MHz, test sample dimensions: 3.5 mm ±0.5 mm (0.14 in ±0.02 in)	SMD TEST FIXTURE 9699 Direct connection type. For measuring SMDs with electrodes on the bottom; DC to 120 MHz, test sample dimensions: 1.0 mm (0.04 in) to 4.0 mm (0.16 in) wide, max. 1.5 mm (0.06 in) high	4-TERMINAL PROBE 9500-10 Cable length 1 m (3.28 ft), DC to 200 kHz, 50 Ω, measurable conductor diameter: φ0.3 mm (0.01 in) to 2 mm (0.08 in)				

High-speed, Large-capacitance MLCC Inspection with Constant Voltage

C HiTESTER 3504



GP-IB

RS-232C



- High speed measurement of 2ms
- Supports C measurements with voltage dependency characteristics through the use of constant voltage testing (CV)
- Model 3504-60 can detect contact failure on all 4 terminals for increased reliability
- BIN function on the 3504-60/50 is ideal for sorting machines
- Model 3504-40 offers high speed and affordability, perfect for integrating into taping machines
- In all models, contact error is constantly monitored during measurement, contributing to increased yield

Order Code: 3504-40 (with RS-232C interface)
3504-50 (with GP-IB, RS-232C)
3504-60 (with GP-IB, RS-232C)

This product is not supplied with measurement probes or test fixtures. Please select and purchase the measurement probe or test fixture options appropriate for your application separately. For an RS-232C connection: A crossover cable for interconnection can be used. You can use the RS-232C CABLE 9637 without hardware flow control.

Basic specifications (Accuracy guaranteed for 6 months. Post-adjustment accuracy guaranteed for 6 months)

Measurement parameters	C (capacitance), D (loss coefficient tan δ)
Measurement range	C: 0.9400 pF to 20.0000 mF, D: 0.00001 to 1.99000
Basic accuracy	(Typ.) C: ±0.09 % rdg. ±10 dgt., D: ±0.0016
Measurement frequency	120 Hz, 1 kHz
Measurement signal level	100 mV (3504-60 only), 500 mV, 1 V rms CV 100 mV Measurement range: up to 170 μF range (Source frequency 1 kHz), up to 1.45 mF range (Source frequency 120 Hz) CV 500 mV Measurement range: up to 170 μF range (Source frequency 1 kHz), up to 1.45 mF range (Source frequency 120 Hz) CV 1V Measurement range: up to 70 μF range (Source frequency 1 kHz), up to 700 μF range (Source frequency 120 Hz)
Output impedance	5Ω (In open terminal voltage mode outside of the CV measurement range)
Display	LED (six digits, full scale count depends on measurement range)
Measurement time	2 ms (Typ. value. Depends on measurement configuration settings)
Functions	4-terminal contact check function (3504-60 only) BIN (measurement values can be classified by rank) (3504-50, 3504-60), Trigger-synchronous output, Setting configurations can be stored, Comparator, Averaging, Low-C reject (bad contact detection), Chatter detection, EXT. I/O, RS-232C (all models standard), GP-IB (3504-50, 3504-60)
Power supply	Selectable from 100, 120, 220 or 240 V AC ±10 %, 50/60 Hz, 110 VA max.
Dimensions and mass	260 mm (10.24 in)W × 100 mm (3.94 in)H × 220 mm (8.66 in)D, 3.8 kg (8.4 lb)
Accessories	Power cord ×1, Instruction manual ×1, Spare fuse ×1

Printer options	PRINTER 9442 For printing numerical values 112 mm (4.41 in) paper width	AC ADAPTER 9443-02 For the Printer 9442, EU type	RECORDING PAPER 1196 For the Printer 9442, 112 mm (4.41 in) × 25 m (82.03 ft), 10 rolls/set	PC communication	GP-IB CONNECTOR CABLE 9151-02 2 m (6.56 ft) length
	CONNECTION CABLE 9444 For the Printer 9442, 9 pin-9 pin, 1.5 m (4.92 ft) length				


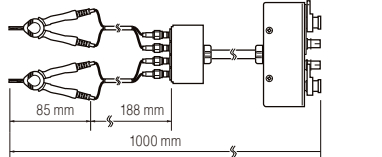
Probe and Test fixtures	PINCHER PROBE L2001 Cable length 73 cm (28.74 ft), DC to 8 MHz, impedance characteristics of 50 Ω, 4-terminal pair configuration, tip electrode spacing: 0.3 (0.01 in) to 6 mm (0.24 in)	CONTACT TIPS IM9901 To replace the tip on the L2001, regular size, bundled with the L2001	CONTACT TIPS IM9902 To replace the tip on the L2001, small size	SMD TEST FIXTURE 9699 Direct connection type. For measuring SMDs with electrodes on the bottom; DC to 120 MHz, test sample dimensions: 1.0 mm (0.04 in) to 4.0 mm (0.16 in) wide, max. 1.5 mm (0.06 in) high	SMD TEST FIXTURE 9677 Direct connection type. For measuring SMDs with electrodes on the side; DC to 120 MHz, test sample dimensions: 3.5 mm ±0.5 mm (0.14 in ±0.02 in)	SMD TEST FIXTURE 9263 Direct connection type, DC to 8 MHz, measurable conductor diameter: φ0.3 mm (0.01 in) to 10 mm (0.39 in)	TEST FIXTURE 9262 Direct connection type, DC to 8 MHz, measurable conductor diameter: φ0.3 mm (0.01 in) to 2 mm (0.08 in)	TEST FIXTURE 9261 Impedance characteristics of 75 Ω, 4-terminal configuration. Other specifications are the same as for the 9261-10	4-TERMINAL PROBE 9140 DC to 100 kHz, impedance characteristics of 75 Ω, 4-terminal configuration
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For LCR Meters and Impedance Analyzers

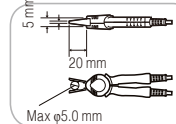
Probes & Test Fixtures and Applicable SMD size

Please use the probes specified below. For probe characteristic impedance of 50 Ω, a 50 Ω coaxial cable is used. For probe characteristic impedance of 75 Ω, a 75 Ω coaxial cable is used.


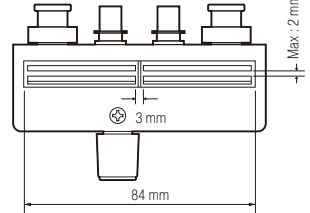
Probes and Test Fixtures for Lead Components

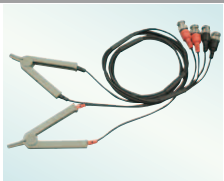
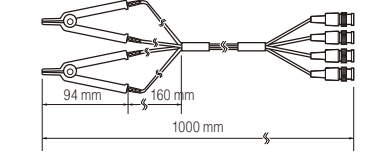
FOUR-TERMINAL PROBE L2000
Cable length 1 m (3.28 ft), DC to 8 MHz, impedance characteristics of 50 Ω, 4-terminal pair configuration, measurable conductor diameter: ø0.3 (0.01 in) to 5 mm (0.20 in)



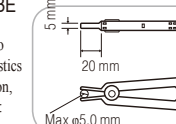
5 mm
20 mm
Max ø5.0 mm

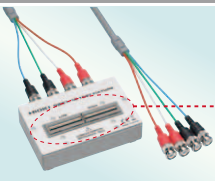
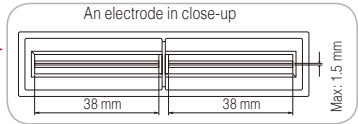
TEST FIXTURE 9262
Direct connection type, DC to 8 MHz, measurable conductor diameter: ø0.3 (0.01 in) to 2 mm (0.08 in)

FOUR-TERMINAL PROBE 9140-10
Cable length 1 m (3.28 ft), DC to 200 kHz, impedance characteristics of 50 Ω, 4-terminal pair configuration, measurable conductor diameter: ø0.3 (0.01 in) to 5 mm (0.20 in)



5 mm
20 mm
Max ø5.0 mm

TEST FIXTURE 9261-10
Cable length 1 m (3.28 ft), DC to 8 MHz, impedance characteristics of 50 Ω, 4-terminal pair configuration, measurable conductor diameter: ø0.3 (0.01 in) to 1.5 mm (0.06 in)


TEST FIXTURE 9261
Impedance characteristics of 75 Ω, 4-terminal configuration, Other specifications are the same as for the 9261-10

An electrode in close-up
38 mm
38 mm
Max: 1.5 mm

Test Fixtures for SMDs

Applicable SMD size ✓ : Measurable
▲ : May not be measurable depending on the shape.


SMD type	Length: L	Width: W	IM9100	L2001 with tip IM9901	L2001 with tip IM9902	9699	9677	9263
JIS CODE	EIA CODE							
0402	01005	0.40 mm (0.02 in)	0.20 mm (0.01 in)	✓			▲	
0603	0201	0.60 mm (0.02 in)	0.30 mm (0.01 in)	✓			▲	
1005	0402	1.00 mm (0.04 in)	0.50 mm (0.02 in)	✓			✓	
1608	0603	1.60 mm (0.06 in)	0.80 mm (0.03 in)		✓	✓	✓	▲
2012	0805	2.00 mm (0.08 in)	1.25 mm (0.05 in)		✓	✓	✓	▲
3216	1206	3.20 mm (0.13 in)	1.60 mm (0.06 in)		✓	✓	▲	✓
3225	1210	3.20 mm (0.13 in)	2.50 mm (0.10 in)		✓	✓	▲	✓
4532	1812	4.50 mm (0.18 in)	3.20 mm (0.13 in)		✓	✓		✓
5750	2220	5.70 mm (0.22 in)	5.00 mm (0.20 in)		✓	✓		✓



SMD TEST FIXTURE IM9100
Direct connection type, SMDs with electrodes on the bottom, DC to 8 MHz, Measurable sample sizes: 01005 to 0402 (EIA)




SMD positioning mechanism
Test pieces can be positioned easily and reliably using templates and guide grooves for various SMD sizes.

High-precision four-terminal measurement
The fixture uses stable, high-precision four-terminal measurement to reliably apply four probes to the SMD's small electrodes.



1005 0603 0402
Guide grooves


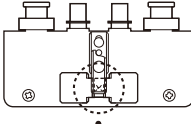
Note: This product is built-to-order so please confirm specifications and delivery time with your local HIOKI distributor.

PINCHER PROBE L2001
Cable length 73 cm (2.40 ft), DC to 8 MHz, impedance characteristics of 50 Ω, 4-terminal pair configuration, tip electrode spacing: 0.3 (0.01 in) to 6 mm (0.24 in)


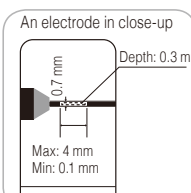
CONTACT TIPS IM9901
To replace the tip on the L2001, regular size, bundled with the L2001

CONTACT TIPS IM9902
To replace the tip on the L2001, small size

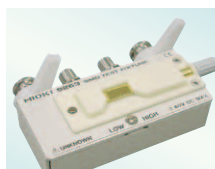
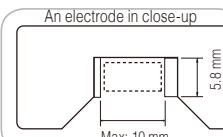
SMD TEST FIXTURE 9699
Direct connection type, For measuring SMDs with electrodes on the bottom; DC to 120 MHz, test sample dimensions: 1.0 mm (0.04 in) to 4.0 mm (0.16 in) wide, max. 1.5 mm (0.06 in) high

An electrode in close-up
4 mm
10 mm
1 mm
4 mm

SMD TEST FIXTURE 9677
Direct connection type, For measuring SMDs with electrodes on the side; DC to 120 MHz, test sample dimensions: 3.5 mm ±0.5 mm (0.14 in ±0.02 in)

An electrode in close-up
0.7 mm
Depth: 0.3 mm
Max: 4 mm
Min: 0.1 mm

SMD TEST FIXTURE 9263
Direct connection type, DC to 8 MHz, Test sample dimensions: 1 mm (0.04 in) to 10 mm (0.39 in)

An electrode in close-up
5.6 mm
Max: 10 mm