



"Reliability Testing,
More Accurate. More Dependable."
J-RAS Measurement Solutions

We offer a comprehensive lineup of products optimized for evaluating insulation reliability and continuity reliability of printed circuit boards, electronic materials, semiconductor package substrates, and high-voltage devices.

Equipped with measurement circuits designed entirely in-house, our products contribute to higher evaluation accuracy and improved reliability, helping our customers enhance their corporate value.

General Catalog

J-RAS Corporation



■ ■ Insulation Reliability Evaluation Systems

As advanced materials and next-generation manufacturing technologies continue to evolve, insulation reliability evaluation is becoming increasingly critical. J-RAS offers a comprehensive lineup of systems designed to meet a wide range of test samples and evaluation requirements, including high-speed simultaneous sampling, high-side measurement architecture, and high-voltage multi-channel testing up to 10 kV.

【ECM-100】 Electrochemical Migration Tester



The standard model in J-RAS migration testing systems.

This high-performance tester combines a wide test voltage range of 1 V to 300 V with high-speed data acquisition, enabling simultaneous sampling across all channels at 16 ms intervals.

Test Voltage: 1~300V
Meas. speed: 16 msec/100 CH (simultaneous sampling of all channels)
Meas. method: High-side measurement
Max. channels: 100 CH/unit

【ECMr-500】 Electrochemical Migration Tester



Scheduled for release in 2026, this next-generation model expands the applied voltage range up to 500 V. While inheriting the proven functions and performance of the ECM-100, a model highly regarded since its launch in 2007, the ECMr-500 supports higher-voltage testing for broader evaluation needs.

Test Voltage: 1~500V
Meas. speed: 16 msec/100 CH (simultaneous sampling of all channels)
Meas. method: High-side measurement
Max. channels: 100 CH/unit

【ECMr-1000/2000】 Electrochemical Migration Tester



Designed for migration testing and insulation reliability evaluation at high voltages up to 2000 V. Even under high-voltage conditions, simultaneous sampling of all channels and the high-side measurement architecture enable evaluation of boards with a common ground structure.

Test Voltage: 5~1000V, 5~2000V
Meas. speed: 16 msec/100 CH (simultaneous sampling of all channels)
Meas. method: High-side measurement
Max. channels: 100 CH/unit

【HVVUa-1000/2000/3000/4000/6000/10000】 High-Voltage Insulation Reliability Evaluation System



An ideal solution for reliability evaluation and life testing of high-voltage devices up to 10000 V. The HVVUa series enables safe, reliable, and efficient multi-channel high-voltage testing that has traditionally been difficult to implement.

Test Voltage: 50V~1kV/2kV/3kV、100V~4kV/6kV、250V~10kV
Meas. speed: Approx. 50 msec/1 CH (scan processing)
Meas. method: Low-side measurement
Max. channels: 50 CH/unit (1000 V to 6000 V), 25 CH/unit (10000 V)

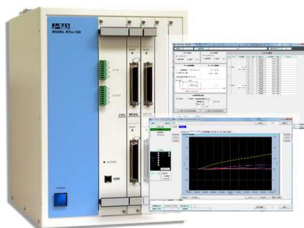
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Communication function • Chamber • HAST	This software option supports test automation. It controls temperature and humidity ramp-up in environmental test chambers and automatically starts the tester once the target conditions are reached. By adding temperature and humidity data to resistance measurement data, this option streamlines test operation and improves data management efficiency.
Resistance box • 1M/10M/100M/1G	Connects to the cable connector to check the tester's resistance measurement accuracy. Recommended for quick and reliable pre-operation inspection.
Calibration unit • Calibration current output	A calibration unit designed for precise nA-level minute current calibration. It supports accurate calibration of the current measurement ranges for each tester, helping maintain measurement confidence over time.

■ ■ Continuity Reliability Evaluation Systems

As high-density design and 3D packaging technologies advance, wiring structures are becoming increasingly fine and complex. J-RAS continuity reliability evaluation systems provide stable, high-accuracy measurement data to support reliability evaluation of connection points such as BGAs and vias.

【RTm-100】 Continuity Reliability Evaluation System



A multi-channel continuity reliability evaluation system capable of measuring resistance from the milliohm range up to 200 k Ω . Its compact enclosure includes standard AC/DC current sources for flexible use across applications, while semiconductor relay switching delivers both high measurement accuracy and long-term reliability.

Meas. current: 25 μ A ~ 25mA (AC/DC)
 Meas. speed: Approx. 50 msec/1 CH (scan processing)
 Meas. method: 4-terminal measurement method
 Max. channels: 240 CH/unit

【RTm-30DC】 Continuity Reliability Evaluation System (Current Stress Application Type)

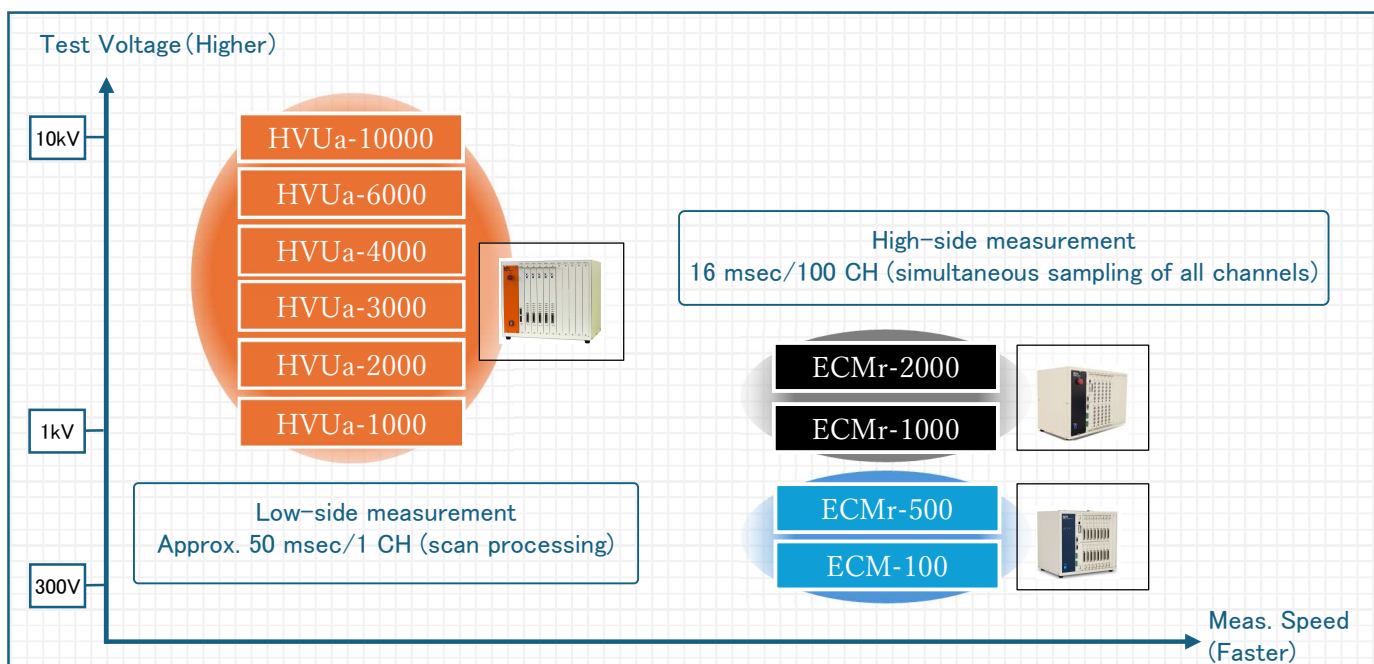


Designed to evaluate connection reliability by applying current stress of up to 3 A to localized connection areas such as through holes. With a measurement resolution of 5 μ Ω or less, the RTm-30DC detects even minute resistance changes with high sensitivity.

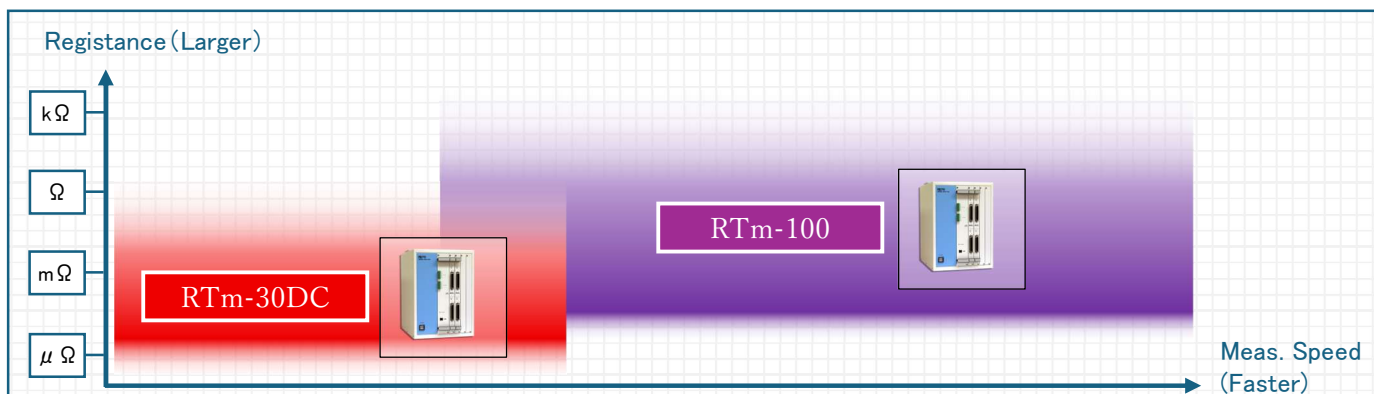
Meas. current: 0.1A ~ 3.0A (DC)
 Meas. speed: Approx. 1 sec/1 CH (scan processing)
 Meas. method: 4-terminal measurement method
 Max. channels: 160 CH/unit

■ ■ Model Selection Chart

○ Insulation Reliability Evaluation Systems (measurement method, measurement speed, output voltage)



○ Continuity Reliability Evaluation Systems (measurement speed, resistance measurement range)





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