Kranti associates canada limited

partnering beyond just consultancy

APREL

AUTOMATED EMC AND ESD

TEST SYSTEMS AND SOLUTIONS

www.kranti.ca

EM-ISIGHT

EM-ISight has evolved into an automated solution for many technologies as it supports design, development and certification of electronics.

By evaluating the near-field of a given device, EM-ISight can help to identify the source of problems and our far-field approximation software feature compliments existing test methods.

SYSTEM HIGHLIGHTS

BROAD FREQUENCY RANGE (9 KHz - 40 GHz)

Analyze electromagnetic signals from low to high frequencies with one system, suitable for a wide array of applications using E or M field vector probes.

HIGH-RESOLUTION SCANNING (0.01 mm)

Map even the finest electromagnetic fields with unparalleled precision, perfect for high-density PCBs and intricate circuits.

COARSE SCANNING (>10 mm)

Quickly survey larger areas to locate hotspots or regions requiring further detailed analysis.

DYNAMIC TOUCH DETECTION

Real-time feedback ensures accurate and efficient measurements, adapting seamlessly to user adjustments down to 0.05 mm.

4D MEASUREMENTS (X, Y, Z, PHI)

Combine spatial and angular measurements for a complete understanding of field distributions and their interactions.

3D AND 4D PLOTTING CAPABILITIES

Visualize field distributions intuitively in 3D or 4D, identifying interference sources, hotspots, and emission zones.

SOURCE DIRECTION VECTOR PLOTS

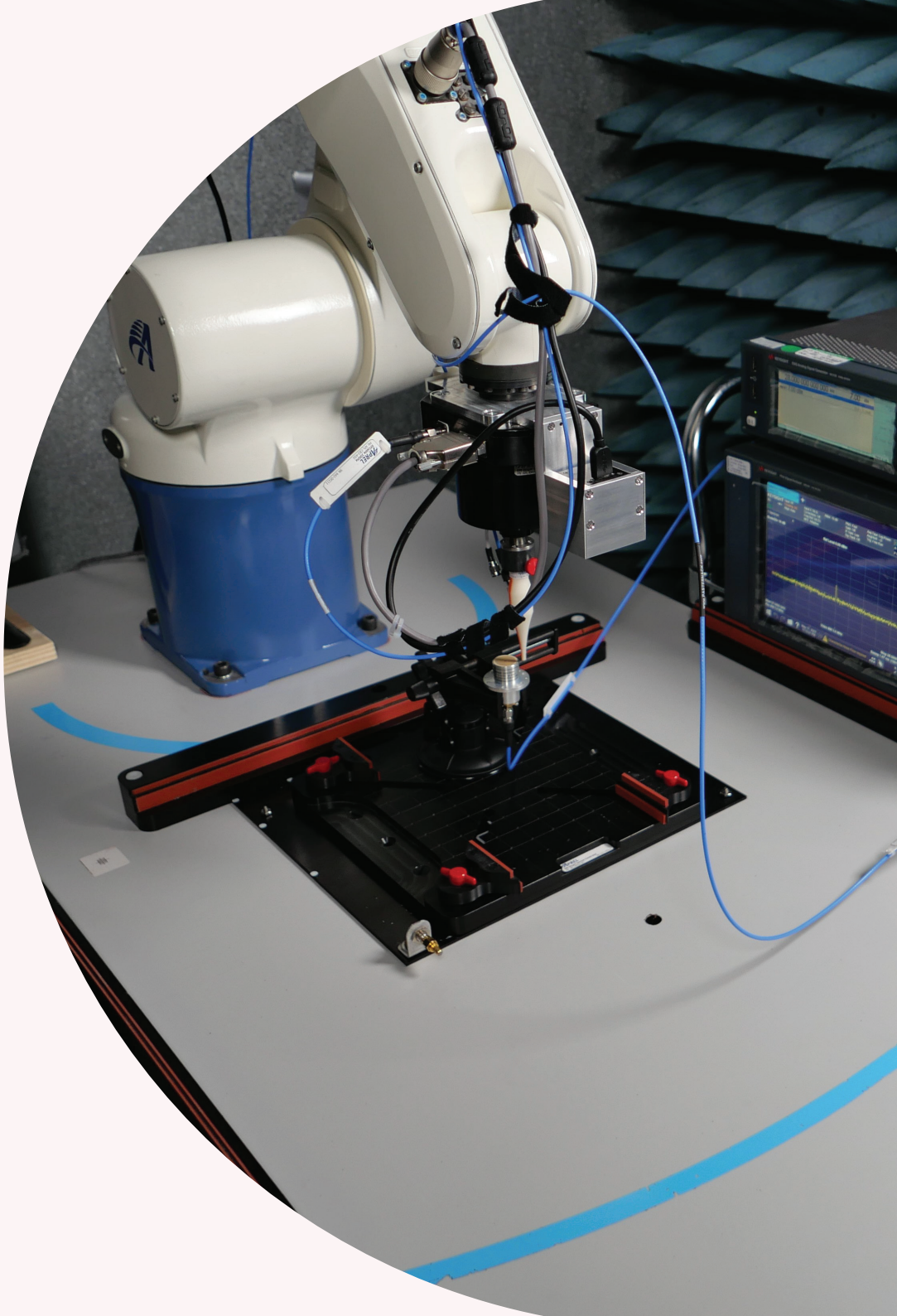
Determine the exact direction of electromagnetic energy sources for quick and effective diagnostics.

CUSTOMIZABLE MS WORD REPORTS

Generate detailed, professional reports automatically, tailored to meet your testing and compliance needs.

SIX AXIS ARTICULATED ROBOTIC SYSTEM

Experience unmatched flexibility and precision with advanced robotic arms that automate complex or hard-to-reach scanning tasks.



WHY CHOOSE EM-ISIGHT FOR EMI/EMC TESTING?

UNMATCHED PRECISION

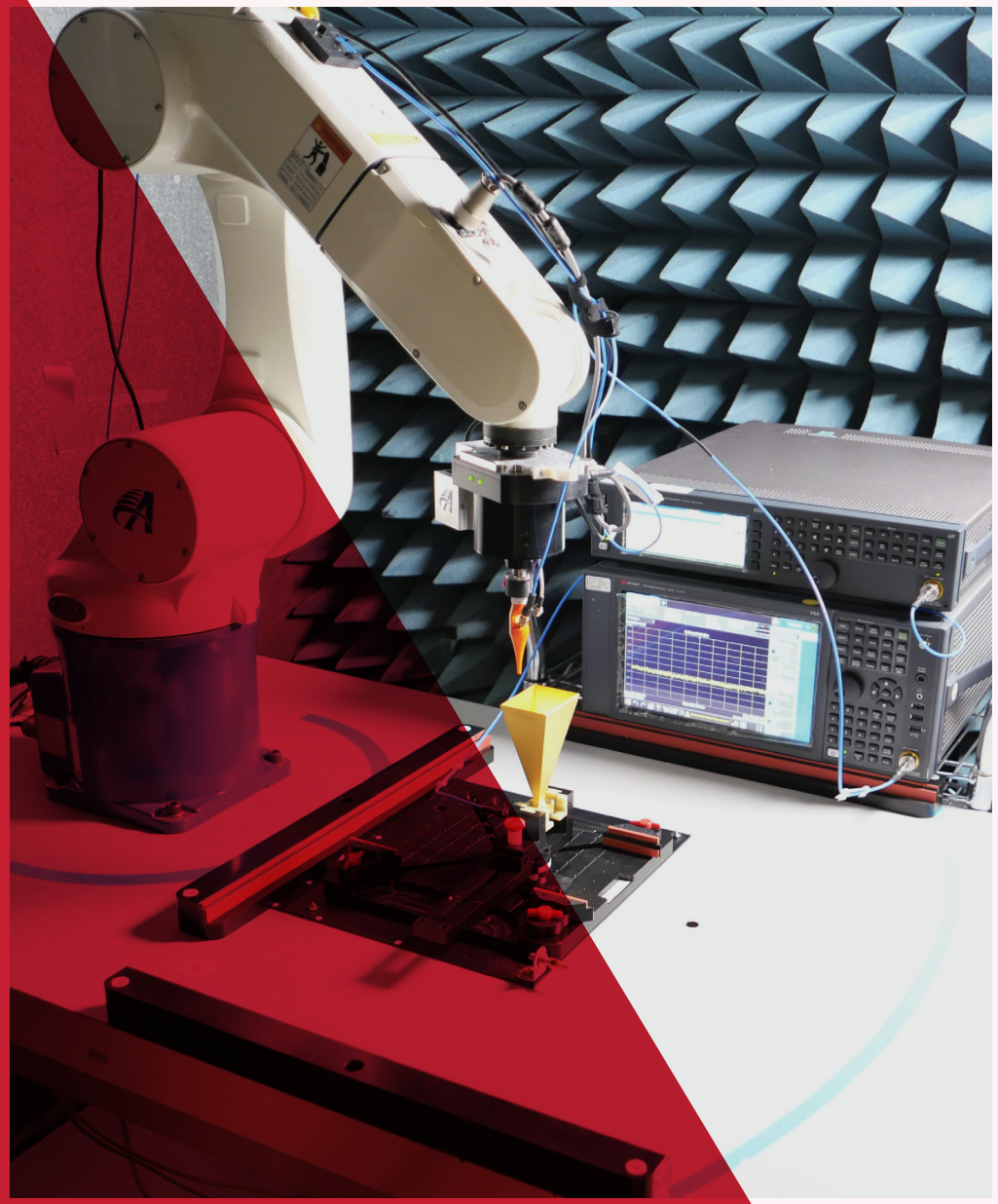
From high-resolution scans to 4D measurements, the system ensures every detail is captured accurately.

VERSATILITY AT ITS BEST

A wide frequency range, coarse and fine scanning options, and articulated robotic systems make it adaptable to diverse testing needs.

ENHANCED VISUALIZATION

Intuitive 3D and 4D plotting along with source direction vectors simplify complex data into actionable insights.



SEAMLESS INTEGRATION

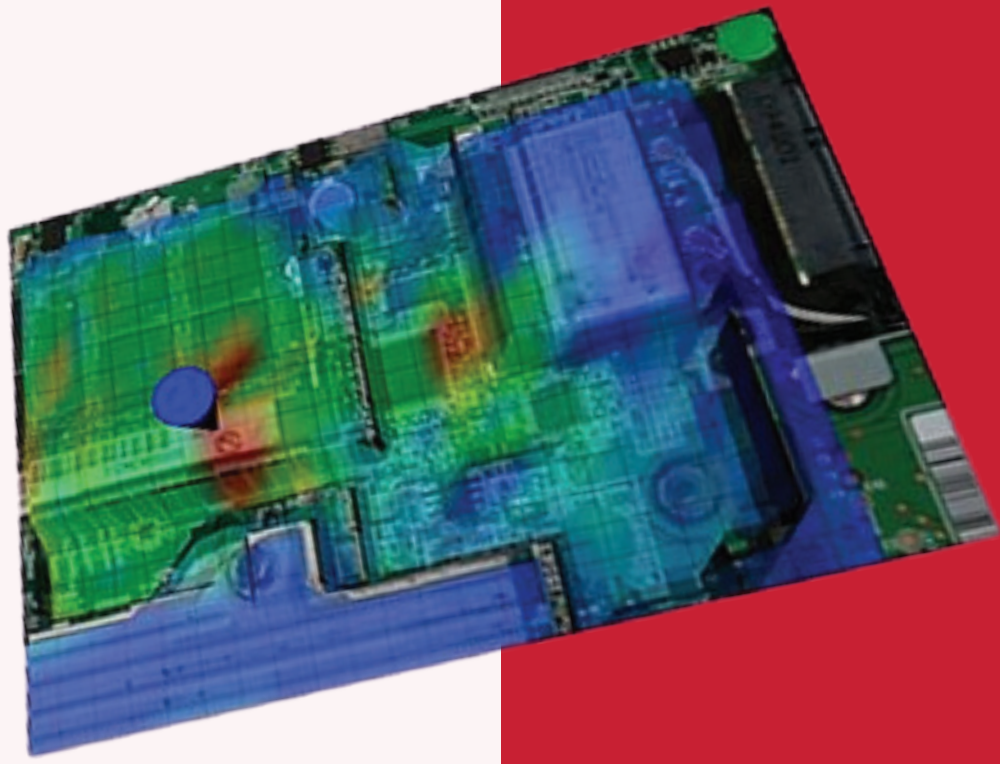
User-friendly software and automated reporting streamline your workflow, saving valuable time and effort.

AUTOMATION FOR EFFICIENCY

The articulated robotic arm options enable automated, repeatable measurements, reducing manual intervention and ensuring consistent results utilizing vector probes.

FUTURE-READY DESIGN

Whether you're analyzing small circuits or large systems, the EM-ISight System is built to tackle today's challenges and tomorrow's innovations.

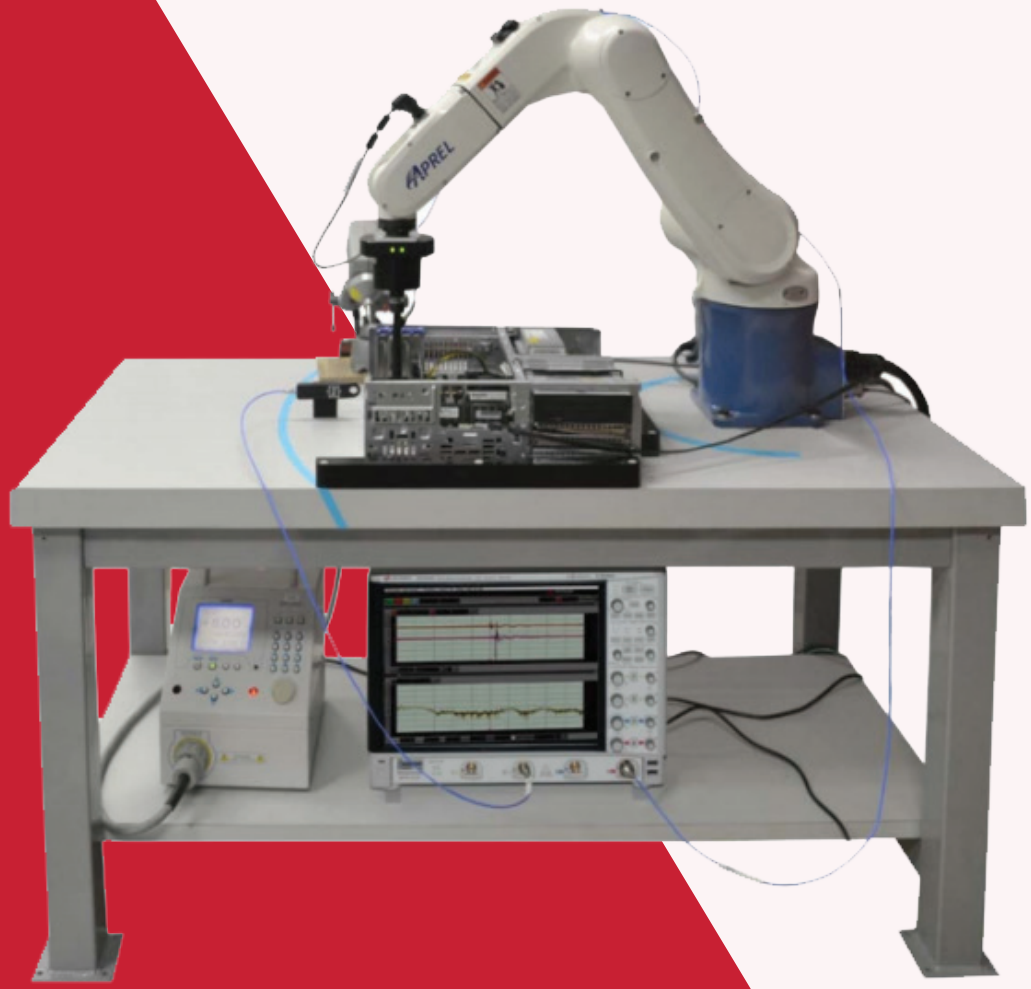


EM-ISIGHT-ESD

The EM-ISight-ESD is an advanced system for real-time ESD measurement and analysis, utilizing robotics and precise magnetic H-field probes with 20 µm spatial accuracy. This enables detailed visualization of ESD events across frequency, time, and space, helping diagnose disruptions and enhance circuit designs.

Compliant with IEC-61000-4 standards, it integrates with third-party ESD generators for accurate validation. The software provides real-time 3D animations and customizable reporting, offering clear insights into ESD impacts on devices under test.

With automated robotic probes for consistent, repeatable testing, the EM-ISight-ESD eliminates user fatigue. Whether used standalone or in an EMI testing framework, it sets a new standard in ESD testing and certification.



SYSTEM HIGHLIGHTS

SINGLE PROBE SOLUTION (9 KHz TO 6 GHz)

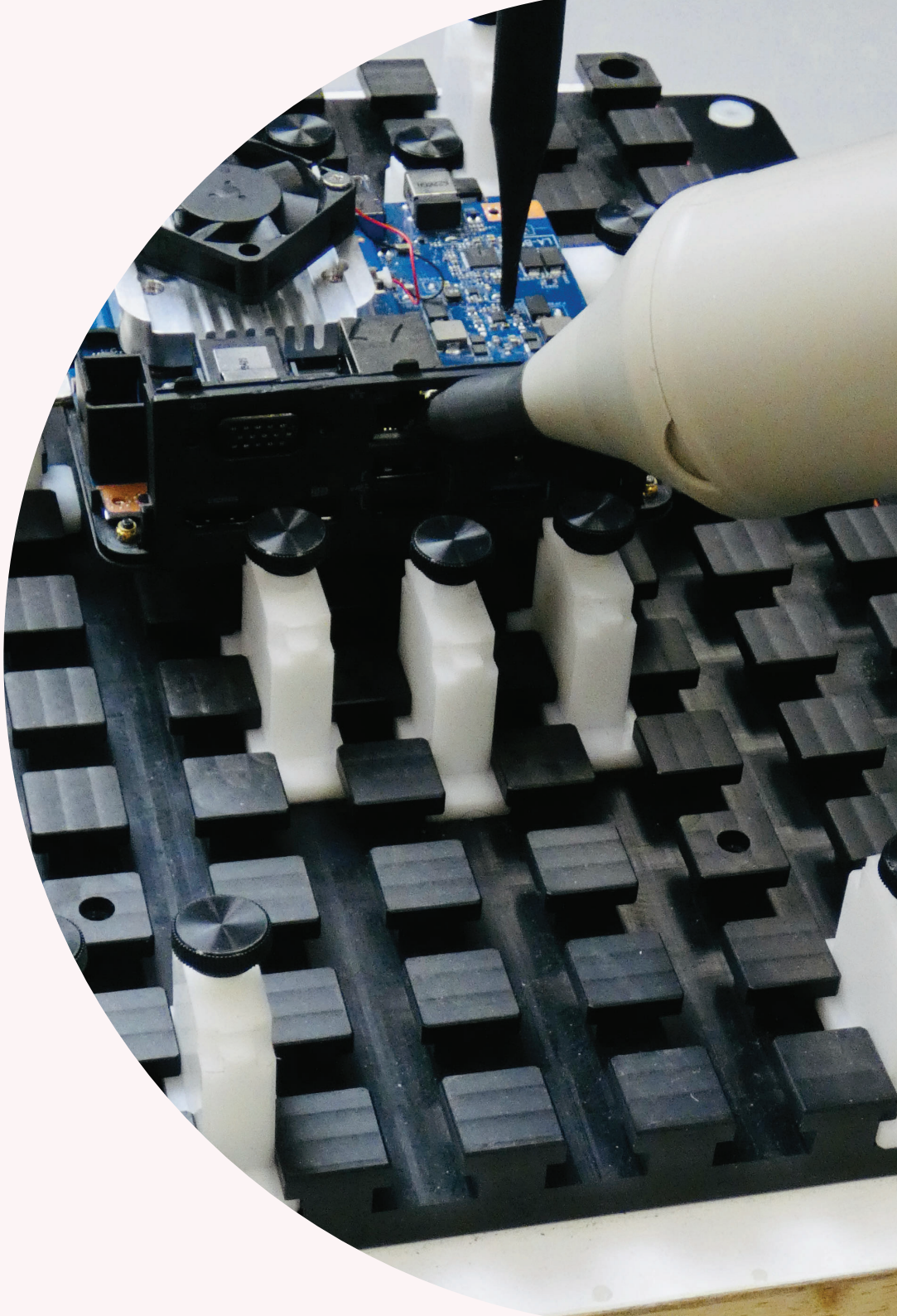
A single E or M field vector probe covers a broad frequency range, making it efficient for analyzing electromag- netic fields and ESD events without the need for multiple probes.

MEASURE NEAR-FIELD COUPLING OF AN ESD EVENT

Accurately captures and analyzes electromag- netic coupling caused by ESD (Electrostatic Discharge) events, ensuring precise diagnostics.

PLOT ESD EVENTS IN FREQUENCY, TIME, AND SPACE

Visualize field distributions intuitively in 3D or 4D, identifying interference sources, hotspots, and emission zones.



EXPORT DATA INTO REAL-TIME MOVIE FORMAT

Frequency and time-domain data can be converted into real-time video for advanced analysis and presentations, improving clarity and communication of results.

UNIVERSAL ESD GUN POSITIONER

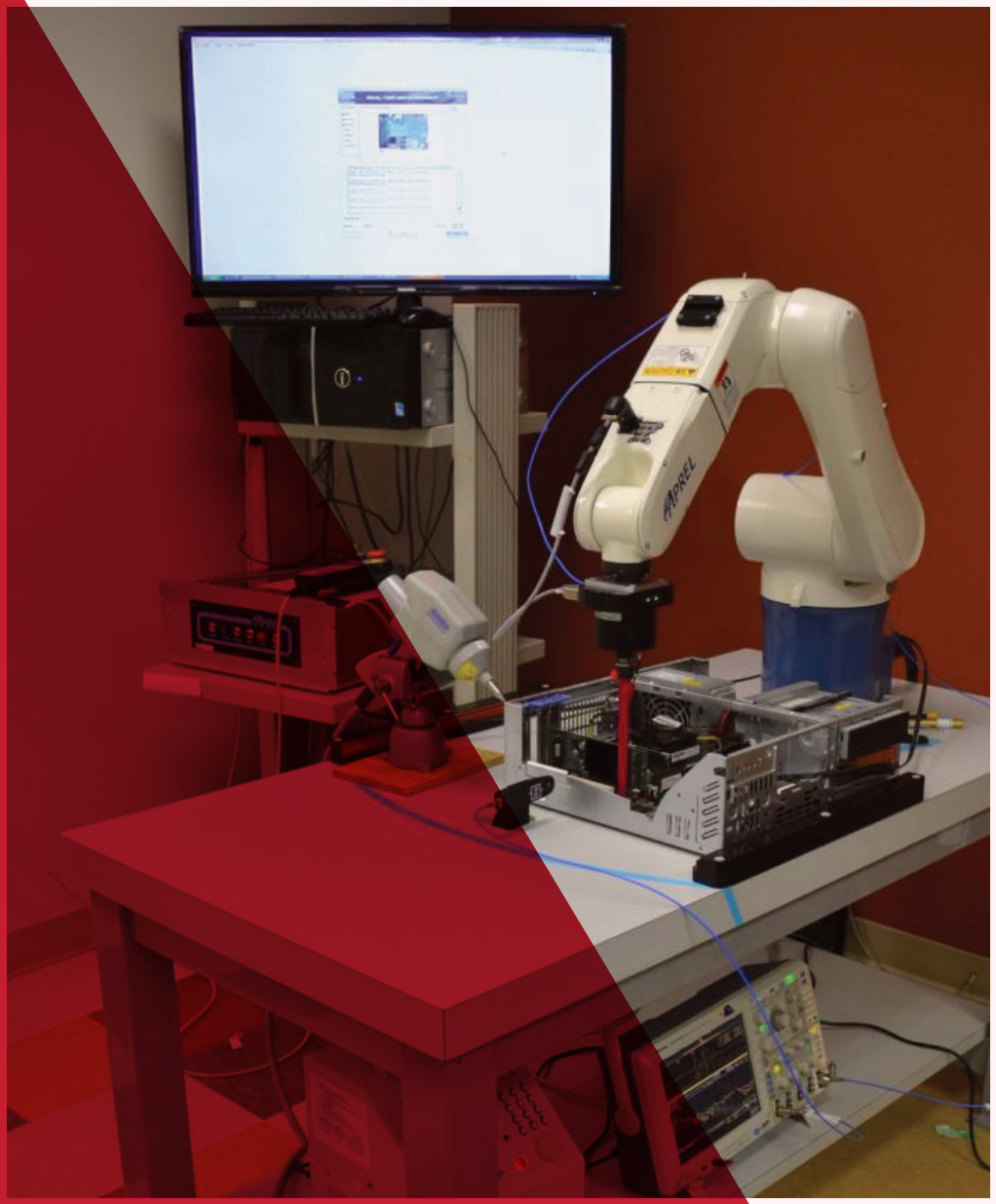
A versatile positioner supports multiple circuit discharge options, ensuring compatibility with different ESD test setups.

REPEARED ENT (VALIDATION METHODS)

A built-in validation target normalizes ESD events, ensuring consistent and accurate measurements across different scenarios.

STANDARD NEAR-FIELD SOFTWARE AND HARDWARE

Includes a complete suite of tools to simplify near-field measurement, analysis, and reporting.



LARGE SCANNING AREA (600MM, CARTESIAN)

Supports scanning large areas for comprehensive testing, ideal for bigger DUTs (Devices Under Test)

HIGH-RESOLUTION SCANNING (>0.02 mm)

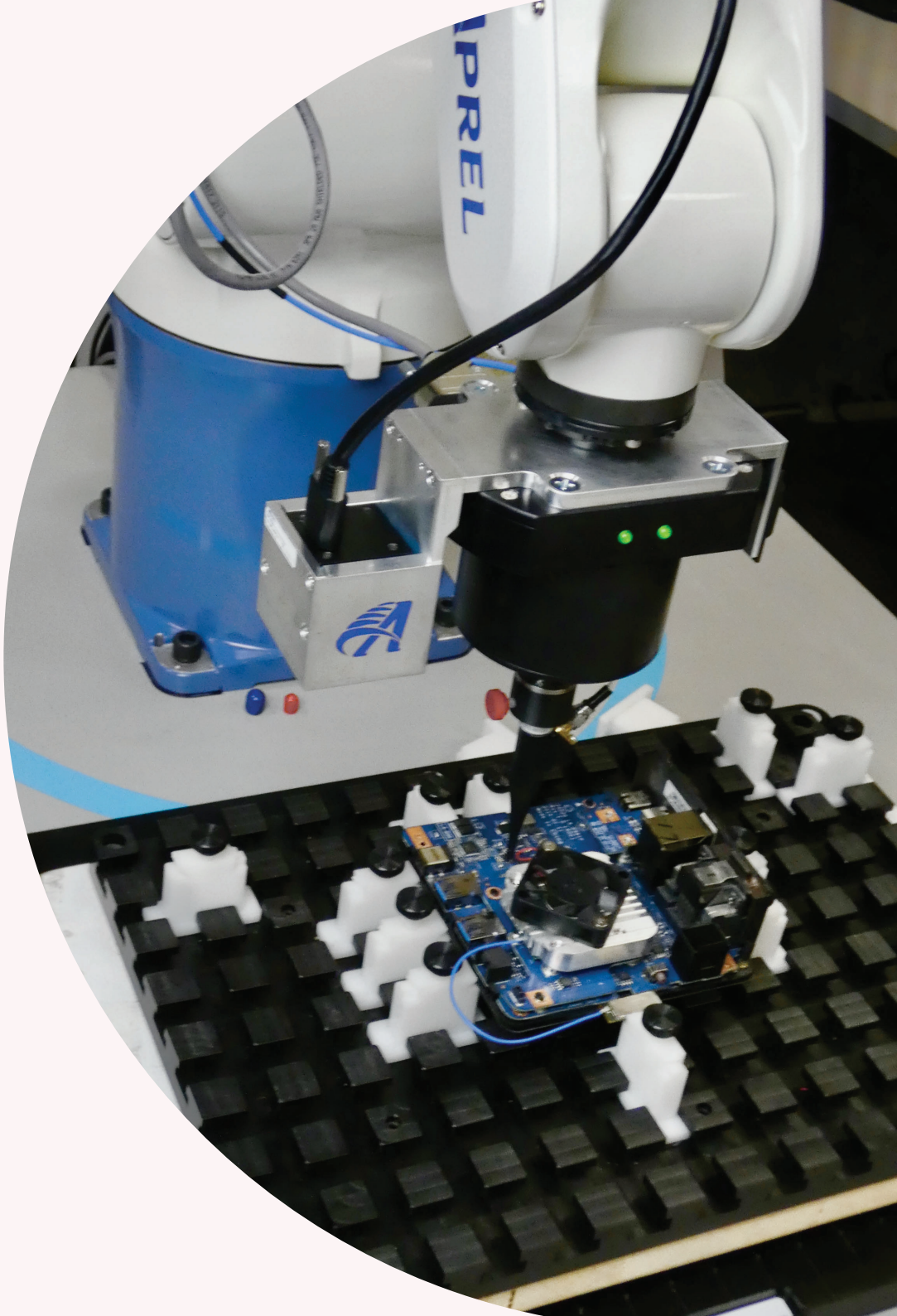
Enables precise detection of electromagnetic and ESD effects, essential for detailed analyses

COARSE SCAN WITH DYNAMIC PEAK SEARCH

Quickly identifies peaks during coarse scans, saving time and ensuring that critical areas are detected for further analysis

REAL-TIME TOPOLOGY ANALYSIS

Dynamically analyzes topological data in Cartesian or Horizontal mode, providing actionable insights during testing



ADJUSTABLE Z-HEIGHT (0.05mm TO 600mm)

Flexible vertical scanning range ensures compatibility with DUTs of varying shapes and sizes.

4D MEASUREMENTS (X, Y, Z, AND PHI)

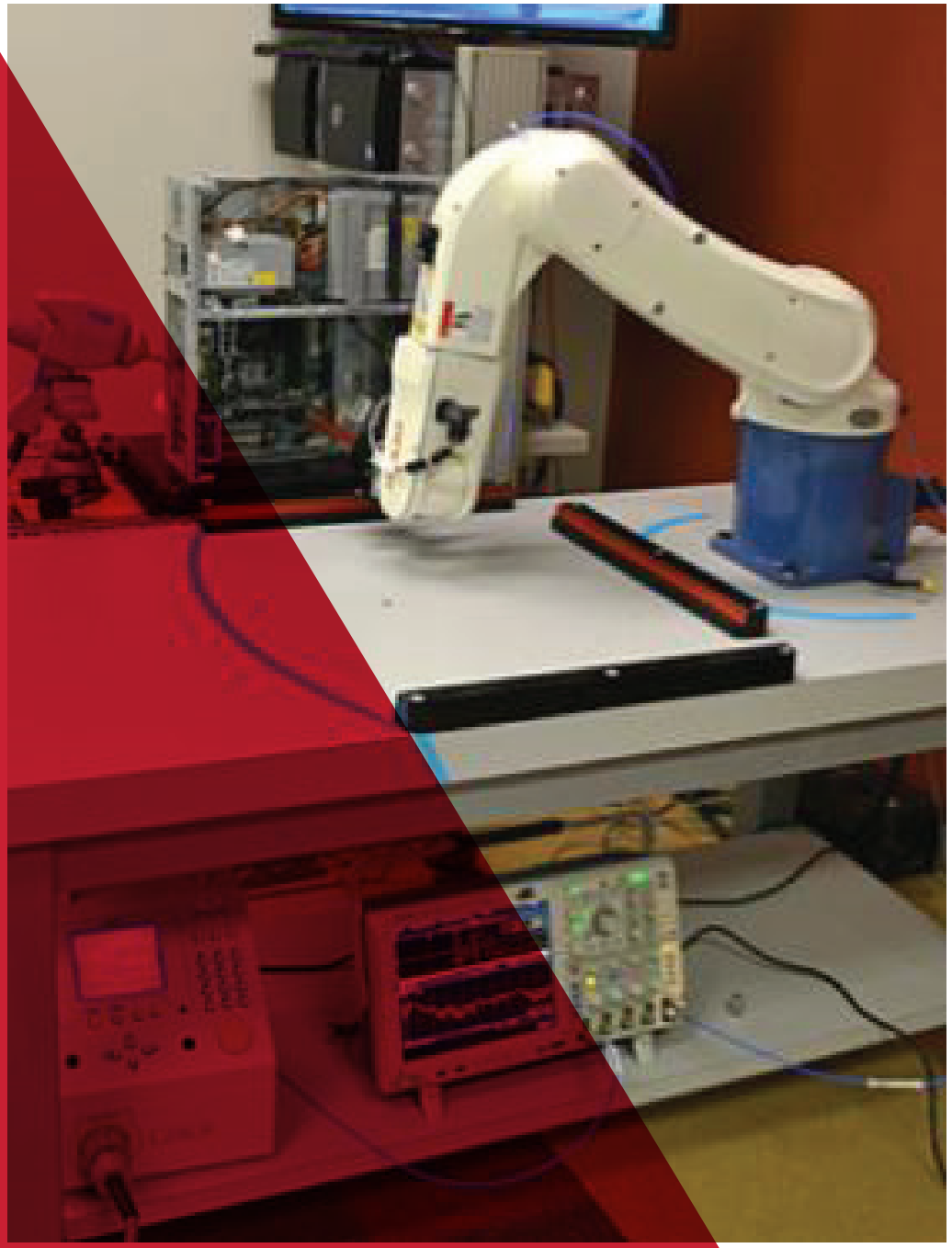
Combines spatial and angular measurements to deliver comprehensive field analysis.

FIELD DISTRIBUTION PLOTS IN 2D, 3D, AND 4D

Visualize field distributions with quick image processing at an impressive resolution of 2.2µm.

SOURCE DIRECTION PLOTS (VECTOR)

Vector probes pinpoint the direction of field sources, enabling users to locate and address potential interference or emissions.



CUSTOMIZABLE REPORTS WITH MS WORD EXPORT

Automatically generate detailed and customizable test reports, reducing post-analysis effort.

DELTA PLOT MEASUREMENT FUNCTION

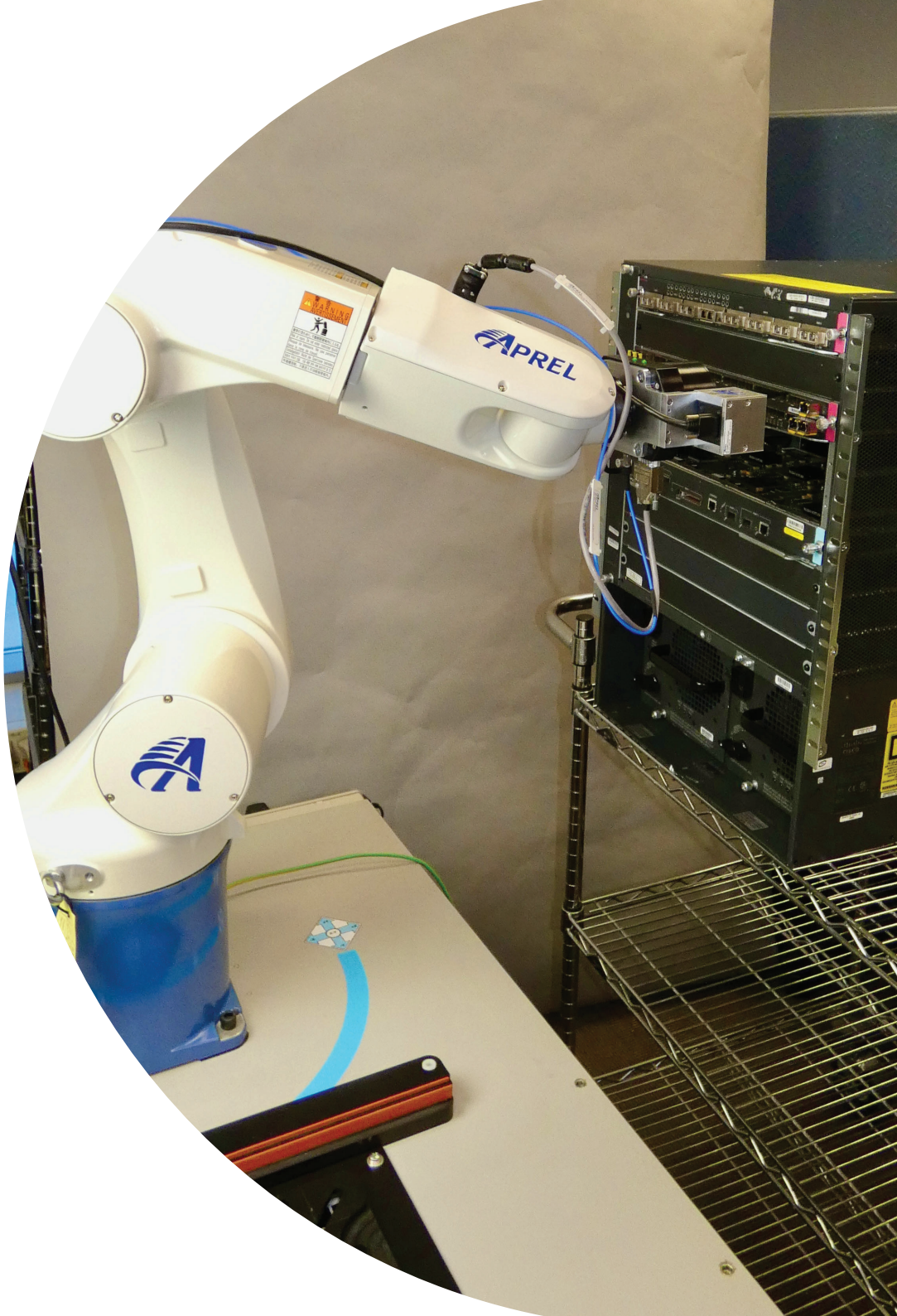
Compare before-and-after measurements to observe changes in field distribution or device behavior.

FREQUENCY DISTRIBUTION PLOTS WITH LIMIT LINES

Analyze frequency spans and traces with configurable limit lines for compliance testing

AVI EXPORT FUNCTION FOR REAL-TIME VISUALIZATION

Generate videos showcasing field and frequency distributions in real time, ideal for reporting or presentations.



ADVANCED MEASUREMENT MODES

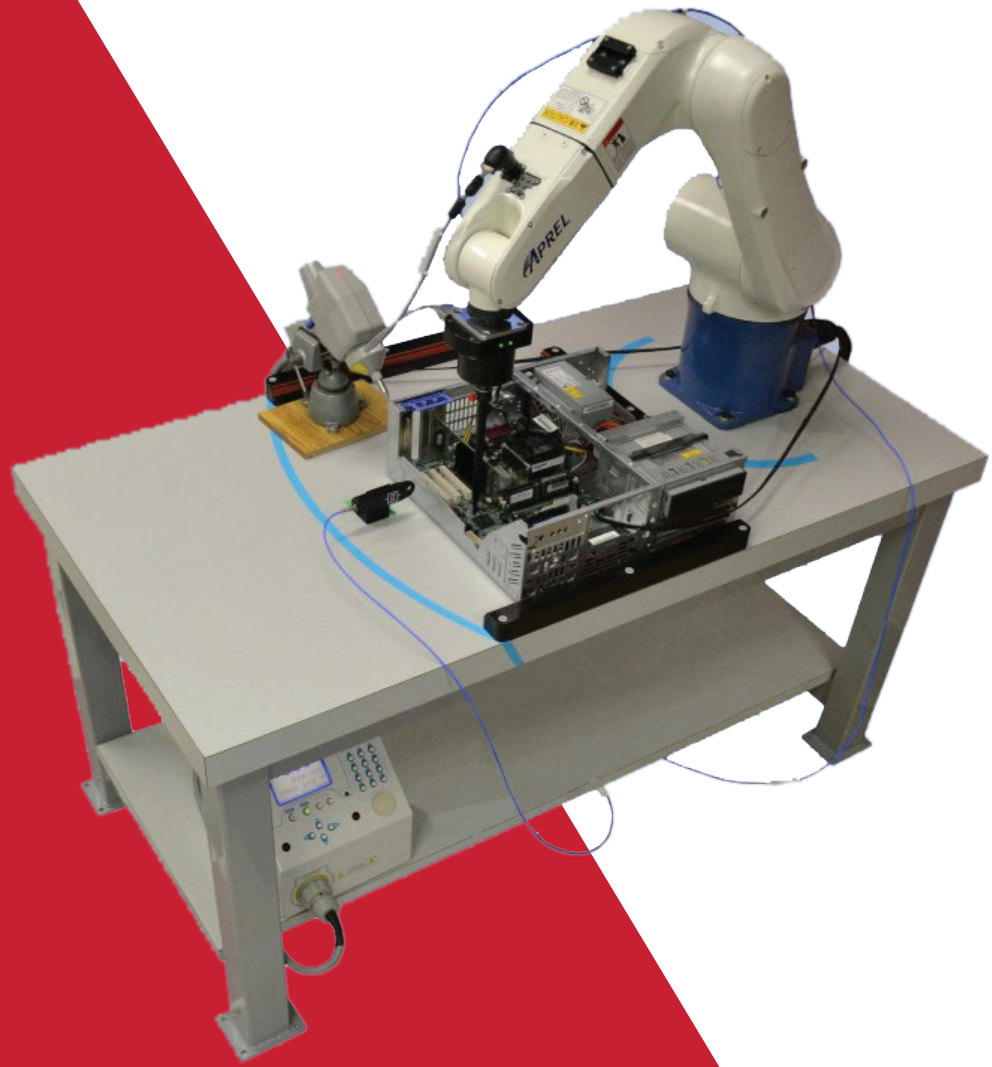
Includes single point analysis, quick checks, free movement, and point delta functions for versatile testing options.

MICROSTRIP LINE SUPPORT (9 KHz TO 6 GHz)

Enables precise testing of microstrip lines across a wide frequency range, critical for RF circuit analysis.

QUICK SCAN SETUP WITH VISION CAMERA

Robot-mounted camera with 2.2µm pixel size and auto-zoom simplifies setup and ensures accurate scanning.



WHY CHOOSE EM-ISIGHT-ESD?

PRECISION REDEFINED

Achieve unrivaled accuracy with its high-resolution capabilities and advanced scanning features.

EFFORTLESS USABILITY

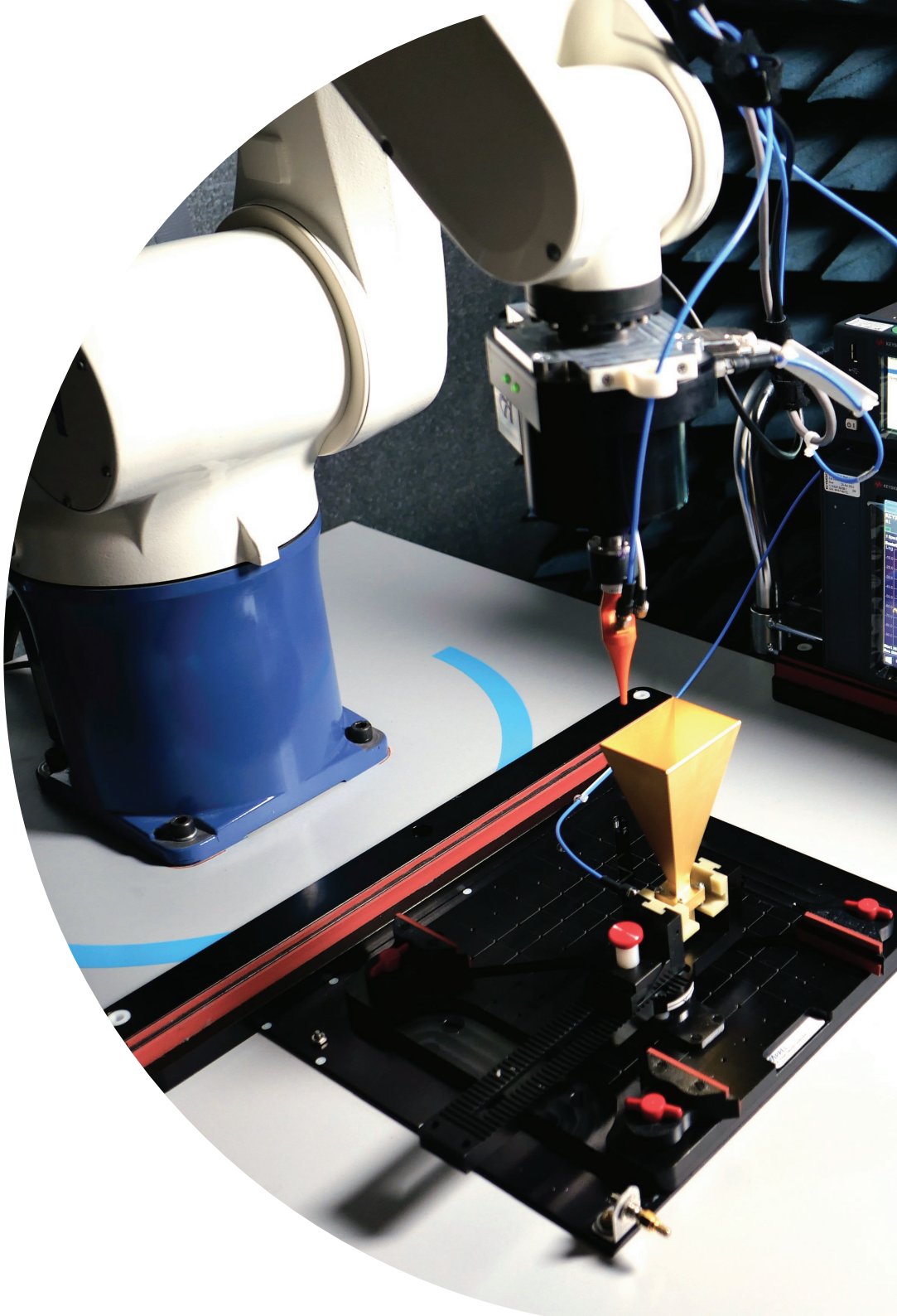
Simplify complex analyses with user-friendly software, real-time topology insights, and customizable reports.

COMPREHENSIVE INSIGHTS

From 2D and 3D visualizations to 4D measurements, the EM-ISight-ESD delivers a complete picture.

FUTURE-PROOF TECHNOLOGY

Be prepared for any ESD or electromagnetic challenge with its robust and versatile design.



TAKE YOUR PRODUCT TESTING CAPABILITIES TO THE NEXT LEVEL WITH US!

Contact us today for more information or to conduct a feasibility test on your products!

partnering beyond just consultancy

Kranti
Associates Canada Limited

62 Steacie Drive, Suite 211, Kanata, ON,
Canada, K2K 2A9

+1 (778) 251 5579

info@kranti.ca

kranti.ca