PathWave Design and Test Software

CATALOG

KEYSIGHT

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Innovate Anywhere with PathWave Design and Test Software

Increase Your Productivity

As time-to-market pressures increase, you need to work smarter. Keysight's PathWave design and test software boosts your productivity by bringing you faster insight, automating procedures, and speeding up simulation and measurement. Save time with automation and analytics software.

Extend Your Instrument Capabilities

Behind Keysight's high-precision hardware lies powerful software to help you extend the capabilities of your test equipment. From generating and analyzing signals to performing end-to-end testing, Keysight's PathWave design and test software turns your test equipment into a complete design and test solution.

Stay Current. Stay on Schedule.

Keep your software current with the latest enhancements and measurement standards. Receive priority access to application experts familiar with the software, the latest standards, and techniques that provide insights into measurement challenges and emerging technologies.
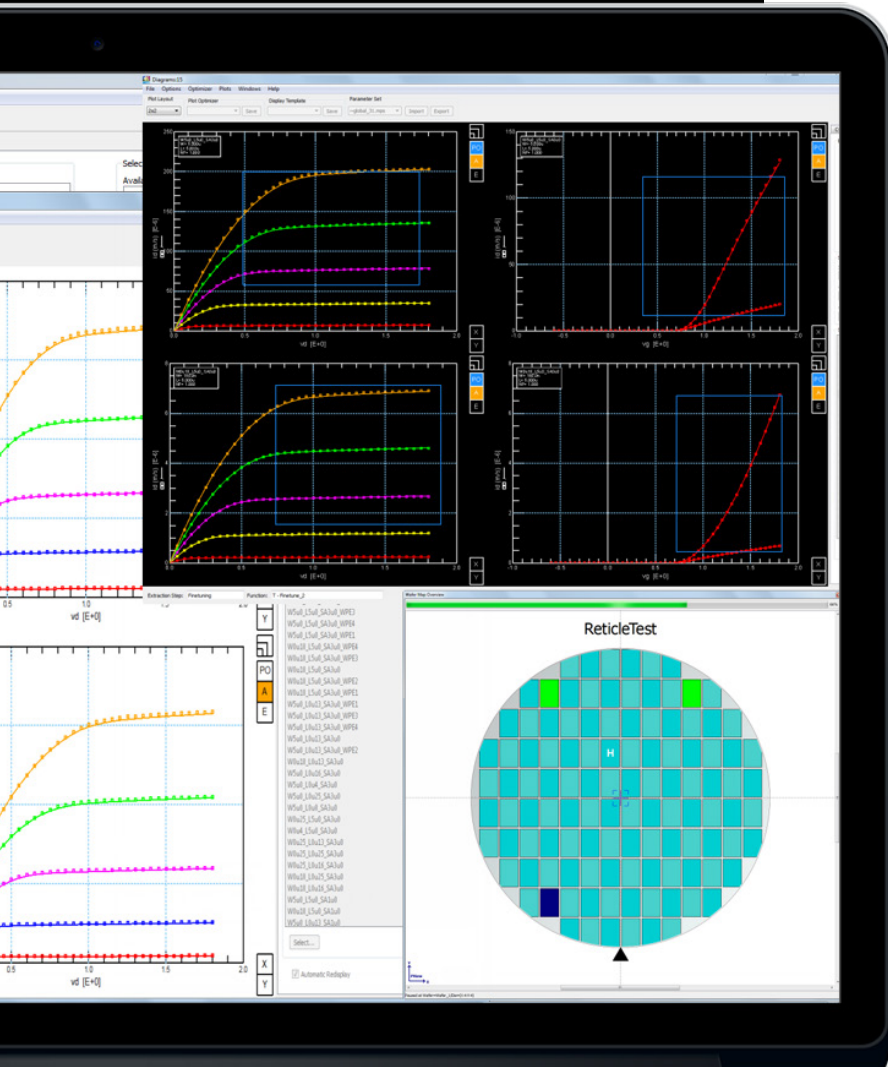
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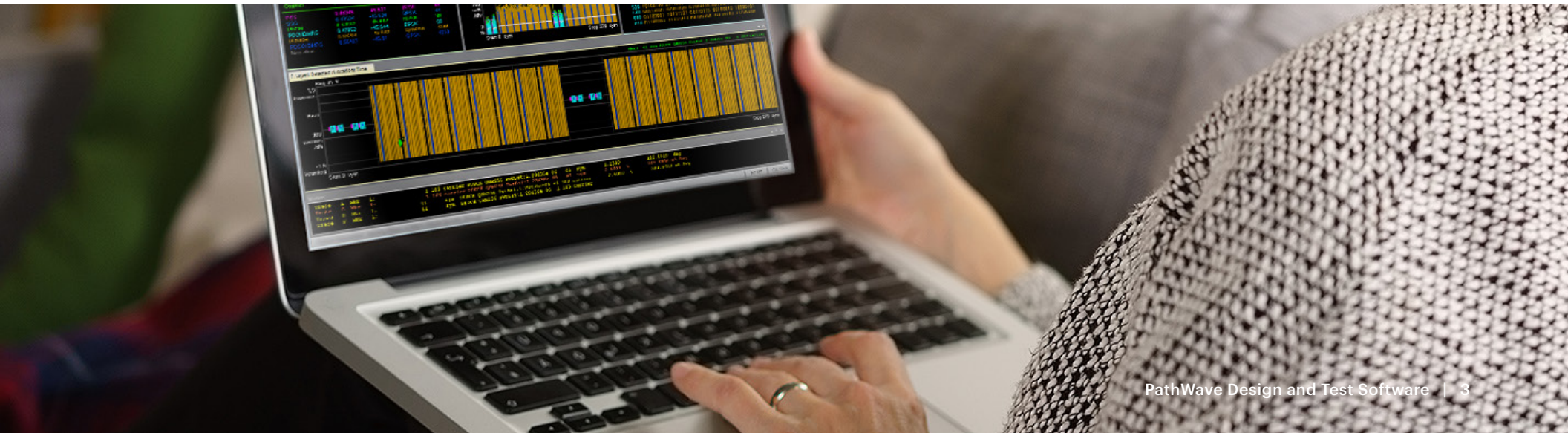
Electronic Design Automation Software

Accelerate your product design cycle with integrated circuit design and simulation software. Know your performance under simulated real-world conditions before you build. Achieve design success with a complete desktop flow.
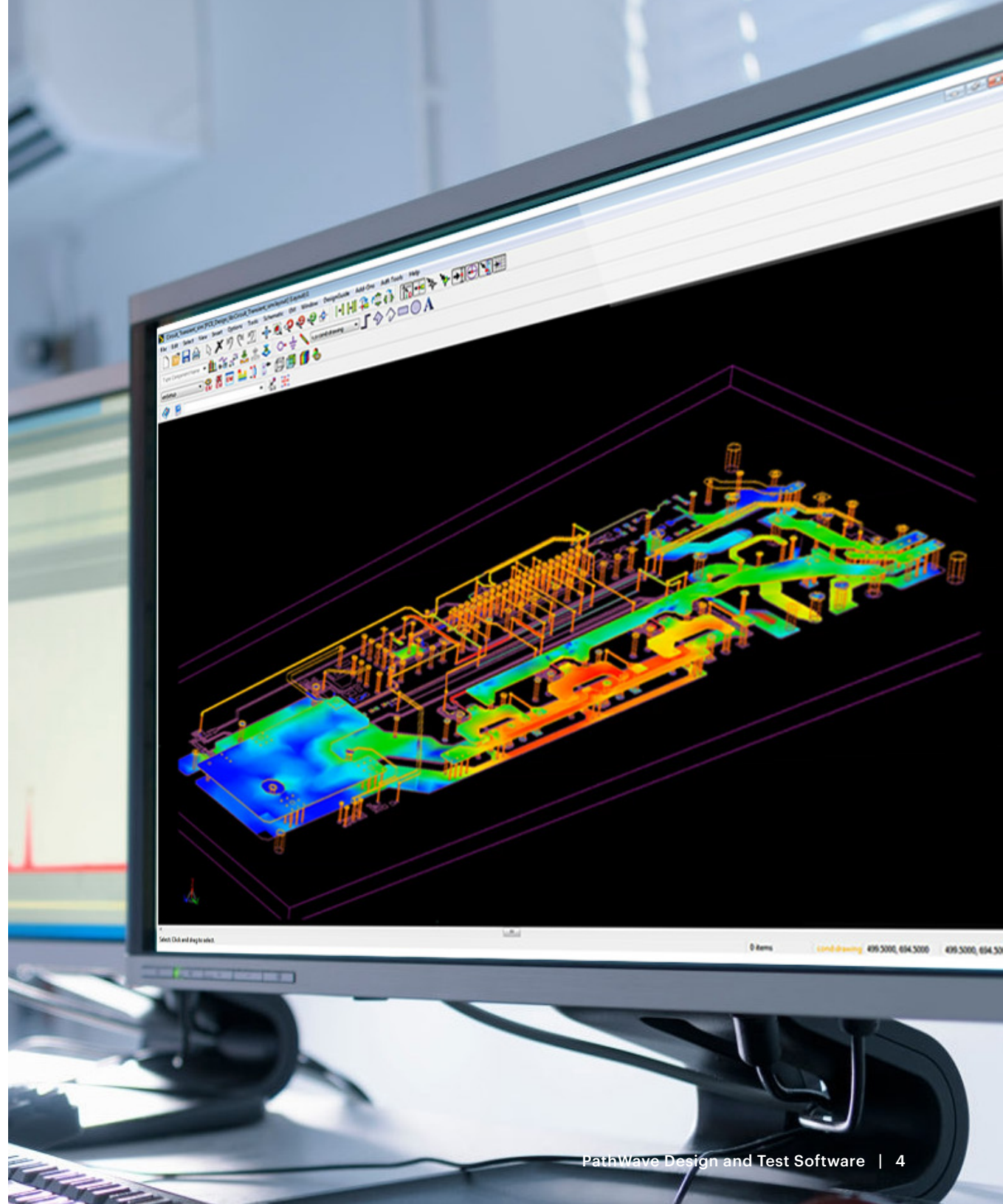
PathWave Device Modeling and Characterization

Device modeling and characterization solutions for modeling and characterization of CMOS and III-V devices

Solutions suite includes:

- PathWave IC Cap
- PathWave Model Builder
- PathWave Model QA
- PathWave WaferPro Express
- Advanced Low-Frequency Noise Analyzer

Want to learn more?

PathWave ADS
Power Electronic Model

PathWave Advanced Design System (ADS)

Advanced circuit design and simulation software

- Share and manage workspaces across teams.
- Incorporate leading foundry and industry designs.
- Increase yield with optimization cockpit and data display.
- Reduce simulation and electromagnetic analysis time with high-performance computing and cloud-based options.

Software bundles for these use cases

- RF Circuit Design
- High-Speed Digital Circuit Design
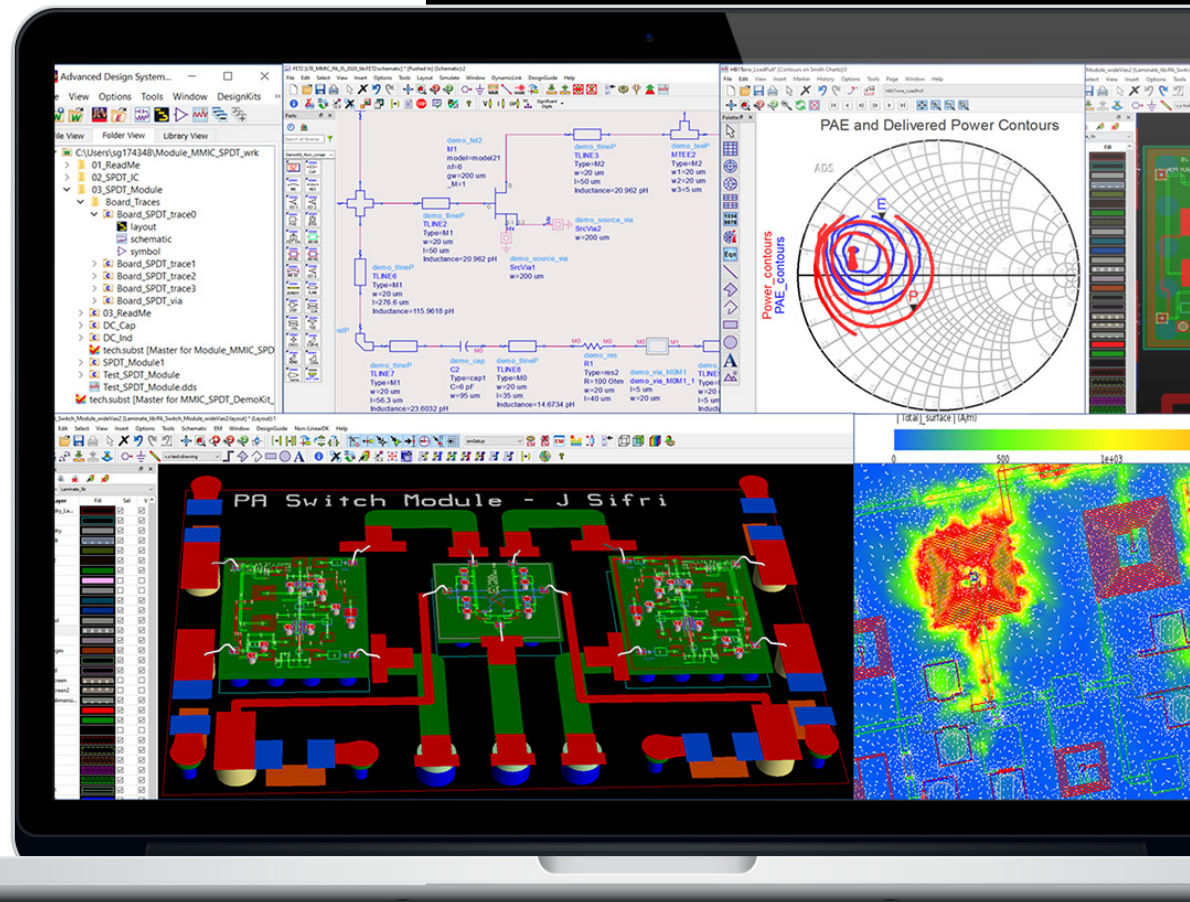- Power Electronics Circuit Design

Extend your capabilities with more design and simulation software

- PathWave EM Design
- PathWave RFIC Design
- PathWave RF Synthesis
- PathWave Thermal Analysis

Want to learn more?

> **Enroll in Keysight University EDA courses:**

PathWave Advanced
Design System (ADS)

PathWave RF
System Design

The most advanced RF system design, modeling and simulation software for RF designers

- Fastest simulation speed.
- Near-circuit fidelity.
- Broad workflow integration with modeling, emulation, and test partners.

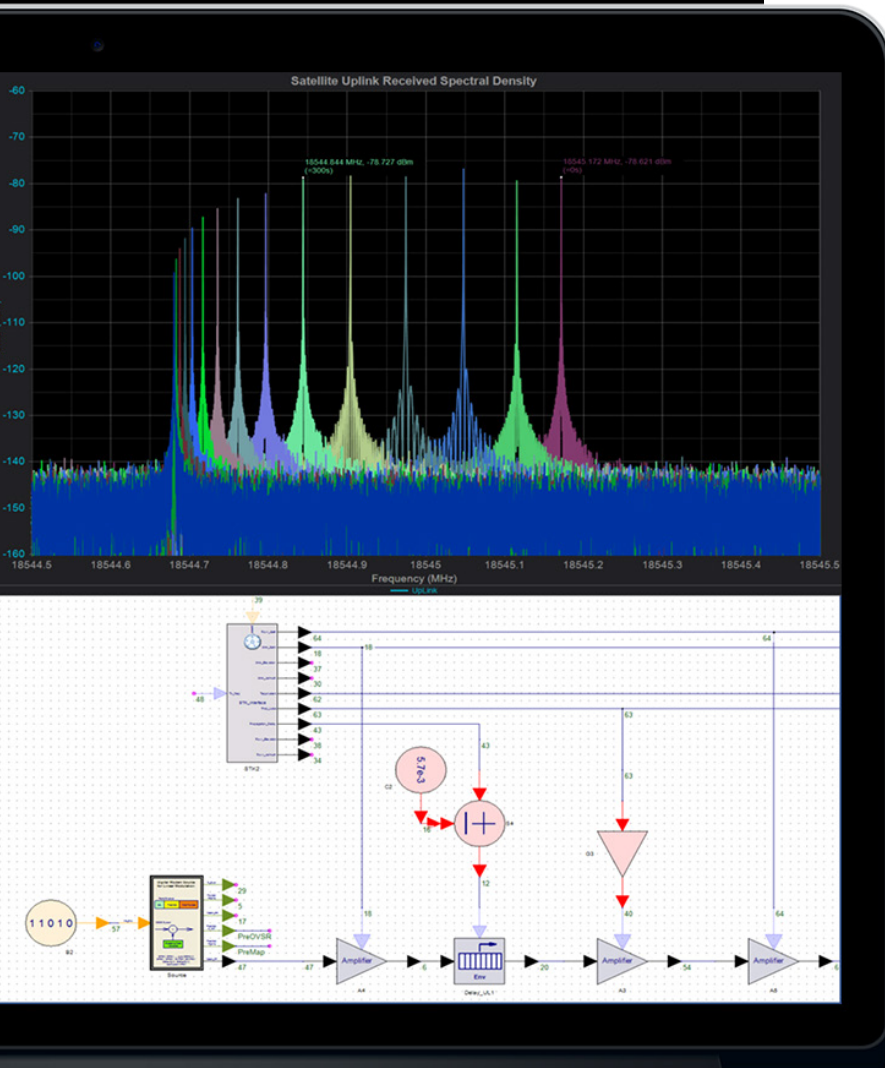## Software bundles for these use cases

- Aerospace and Defense
- 5G and Cellular
- Automotive
- WiFi and Connectivity
- Satellite

Extend your design with emulation software

- EXata Network Modeling-5G
- Propsim Channel Studio

PathWave
System Design

Want to learn more?

Signal Analysis and Generation Test Software

Reduce the time you spend on signal simulation and analysis with PC-based and benchtop software. Create and demodulate application-specific test signals at baseband, RF, and microwave frequencies. Address ever-changing measurement needs with over 25 signal analysis applications.

PathWave X-Series Measurement Applications

Measurement applications for benchtop and modular signal analyzers

- Gain insight into device performance with intuitive graphs and trusted results.
- Share the same measurement science and expertise across multiple hardware platforms.
- Ensure your designs meet the latest standards.

PathWave Vector Signal Analysis (89600 VSA)

Software for demodulation and vector signal analysis

- Go deeper into signals to find the root cause of problems in time, frequency, and modulation domains.
- Characterize numerous signals and devices simultaneously with multi-measurement capabilities.
- Isolate unexpected interactions with unlimited markers and trace-to-trace marker coupling.

Keysight's 89600 VSA software supports over 45 hardware platforms, including spectrum and signal analyzers, modular instruments, and oscilloscopes.
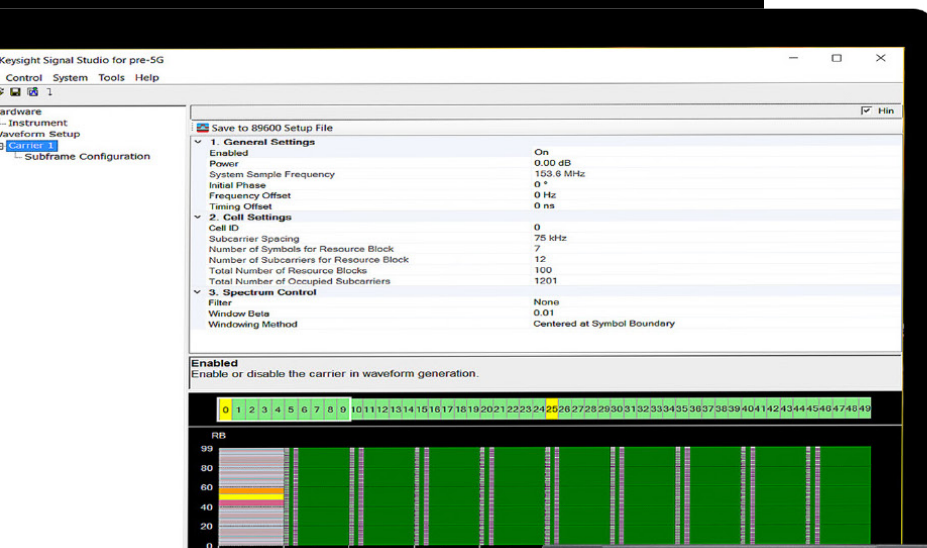

PathWave Vector
Signal Analysis

PathWave Signal Generation

PathWave Signal Generation

Signal creation for a wide range of general-purpose or standards-based signals

- Create performance-optimized reference signals.
- Validate component, transmitter, and receiver testing.
- Speed signal creation and reduce simulation time.

Component and Compliance Test Software

Keysight offers the industry's largest selection of compliance, debugging, and application-specific oscilloscope software. The software works seamlessly with your oscilloscope and provides the insight you need to quickly and easily innovate your best designs. Create, test, and validate your designs faster with automated software testing, and stay up to date on the latest standards with over 100 component and compliance test software packages.

Oscilloscope Application Software

Software to extend the capabilities of your oscilloscope

- Tap into measurement analysis software for power integrity, signal integrity, jitter, vertical noise analysis, and more.
- Gain more visibility into your digital design using protocol decode applications.
- Use automated compliance test applications for over 50 standards to ensure conformance to the latest compliance test specification.
- Test, debug, and verify from simulation to validation and documentation with off-line capabilities.

Automated Compliance
Test Software

InfiniiVision
Oscilloscope Software

Receiver Compliance Test Software

Compliance testing for high-speed digital receivers can be a complex, tedious process. Keysight's bit error ratio test (BERT) system enables the most accurate physical-layer design verification of high-speed communication and multi-gigabit digital interfaces. Our expert-level support will help you select the high-performance hardware, control software, receiver test, and automation tools needed to help you master your design.

- Keysight M8070B System Software controls BERTs and arbitrary waveform generators (AWGs) for pattern generation and receiver compliance testing.
- Keysight N5991A Receiver Test automation software makes compliance testing easy for over a dozen high-speed digital standards, including PCI Express®, USB, and 400G optical and electrical Ethernet.
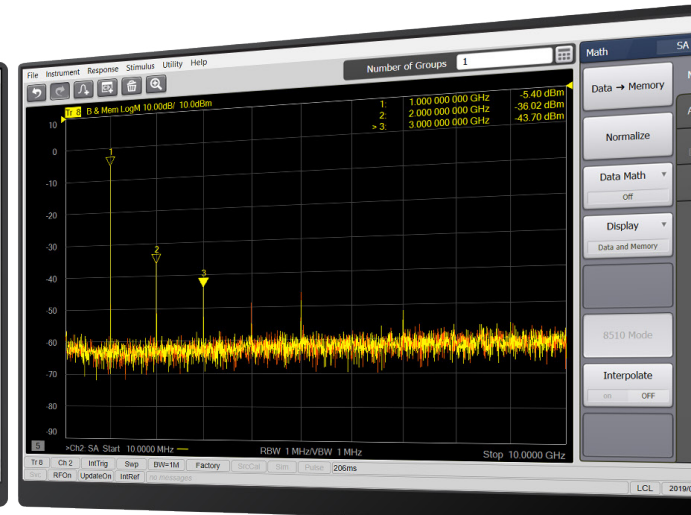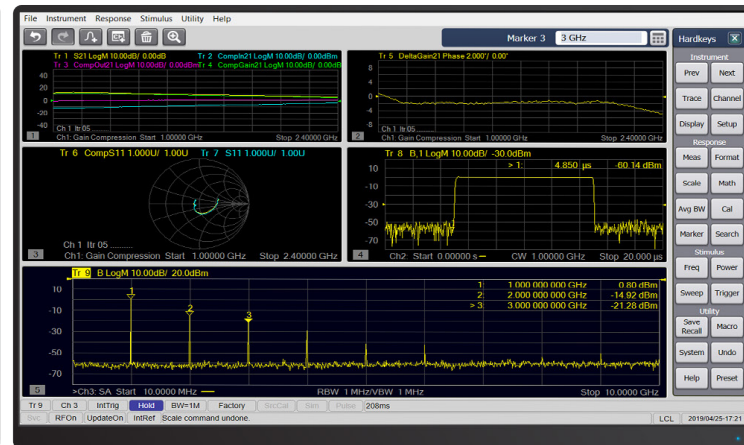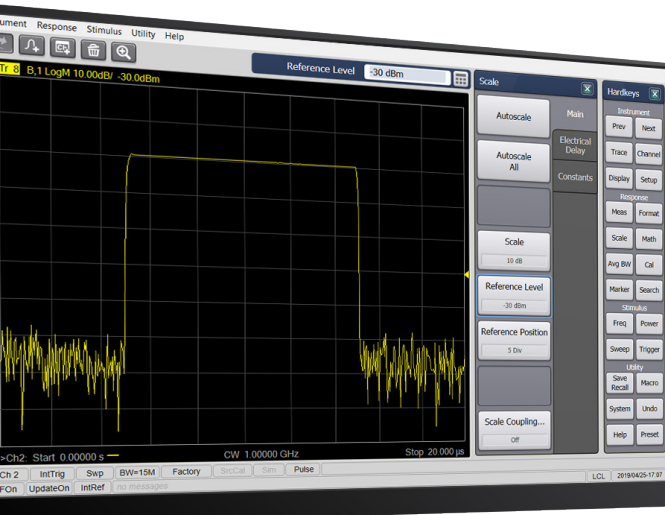
Bit Error Ratio and Receiver Test Software

PathWave Network Analyzer Software

Network analyzer applications to simplify your advanced measurements

- Turn your network analyzer into a complete RF test solution.
- Gain deeper insight into your network analyzer measurements.
- Automate fixture removal with wizards and guides.

Network Analyzer Software

Test Automation Software

PathWave test automation software delivers faster, more accurate engineering insight. Connected workflows and trusted algorithms enable you to optimize your test plans while increasing your test efficiency on instruments, PCs, and automation systems.
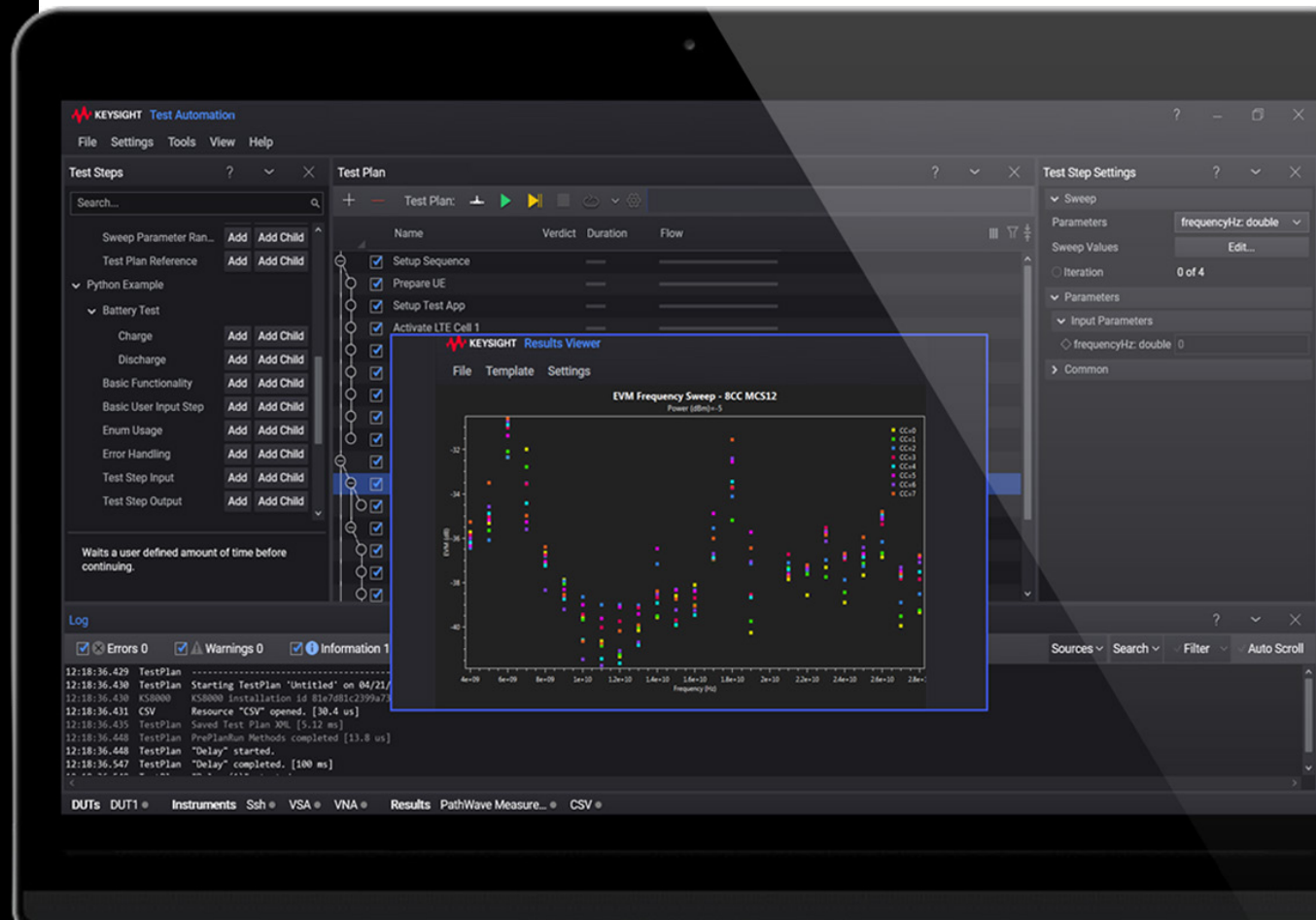
PathWave BenchVue

Instrument control software for simplified test automation

- Connect instruments, record results, and visualize measurements.
- Save time with automated test sequences without programming.
- Analyze and export data in multiple formats.

PathWave BenchVue
Complete Control Collection

PathWave Instrument Robotic Process Automation (RPA)

A smarter approach to R&D hardware debugging and verification

- Get on-demand interactive automation without custom scripts, standard commands for programmable instruments (SSCPI), or device-specific driver commands.

- Reduce complexity and repetition via no-code, one-button record and playback operation.

- Gain remote access to orchestrate and control your measurement setup anywhere in the world.

- Automate and parameterize user interface interactions with your instruments and devices under test.

- Achieve time-savings by collaboration and sharing automated custom scripts with peers and eliminate the need for rework.
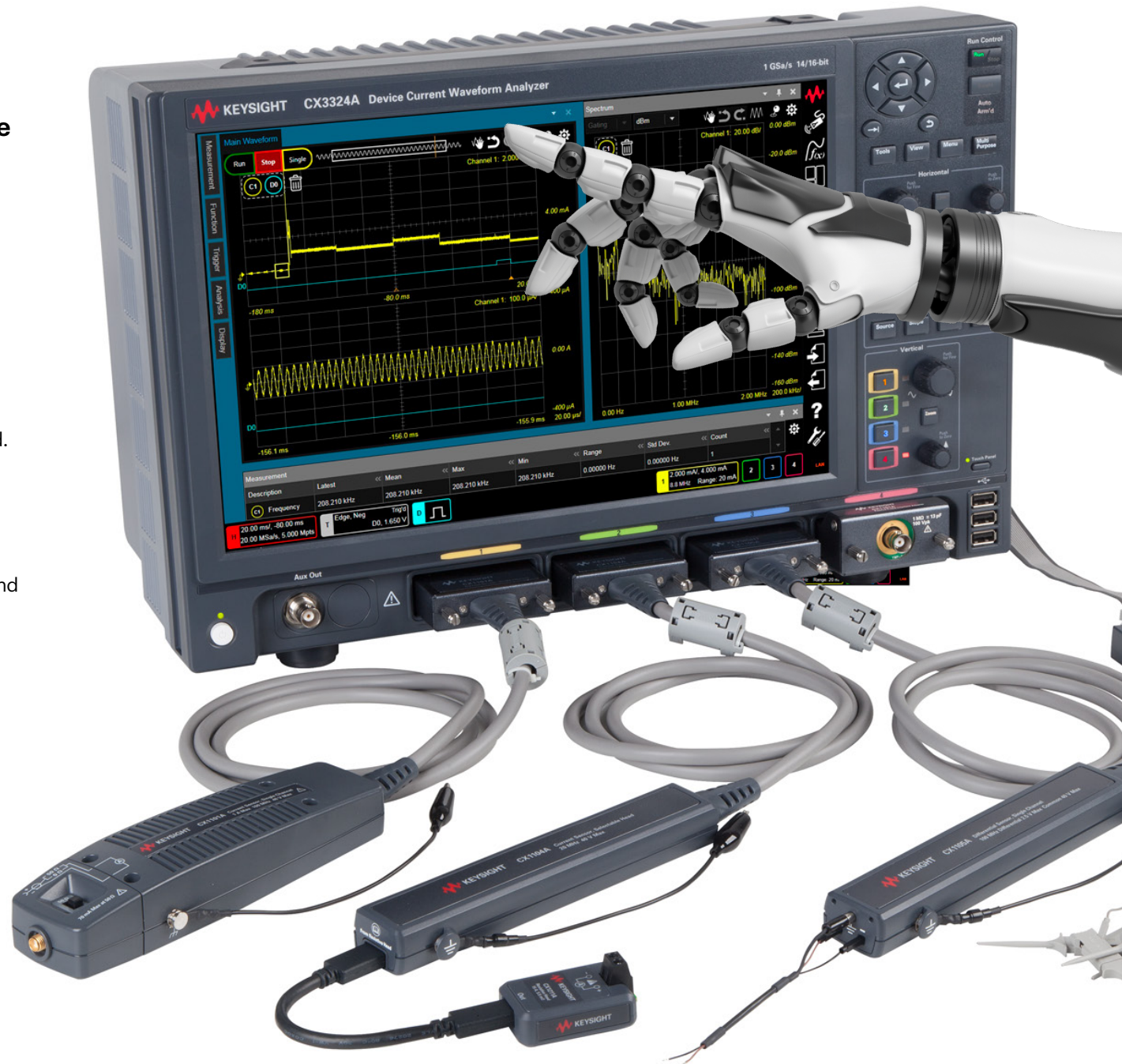
PathWave Instrument RPA

PathWave Test Automation

Software to optimize test plans and increase test efficiency

- Revamp test plan development and execute with speed, scale, and ease using open and modular software.

- Access powerful test plan creation and execution built on OpenTAP®, an open source test sequence that enables you to interface with any tool, instrument, or programming language.

- Obtain plugin development and debug environments for C# and Python enabling scale and customization of your tests.

- Use extensible user interfaces suitable for research and development, design validation test (DVT), and manufacturing.
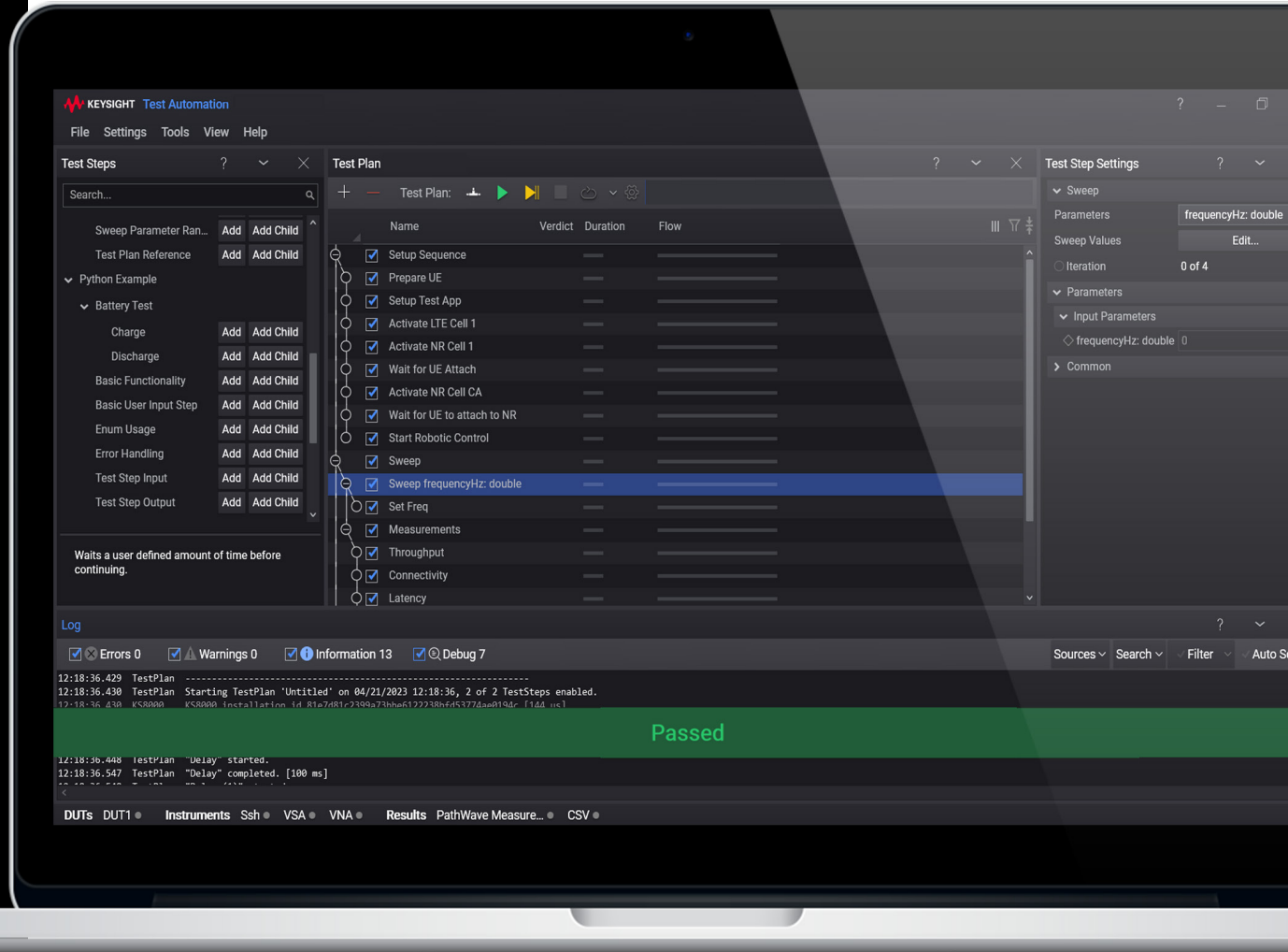
PathWave Test Automation

Data Analytics Software

Unleash a new era of insights with software that integrates data analytics, machine learning, and artificial intelligence. Gain efficiency with faster decision-making, more accurate predictions, and consistent data capture, display, and visualization.

PathWave Waveform Analytics

**Edge-to-cloud software
for compressing, analyzing,
and storing waveform data**

- Debug voltage and current spikes, I/O glitches, and time shifts in pre-silicon.
- Improve anomaly detection and reduce data storage costs.
- Compress long-duration waveforms and reduce waveform transfer time.

PathWave Waveform Analytics

PathWave Manufacturing Analytics

On-premise and cloud-based software to analyze process, test, and equipment data in the manufacturing environment

- Reduce cost of poor quality (CoPQ) by improving first-pass yield and minimizing retest and handling.
- Access in real-time extract, transform, and load (ETL) direct from manufacturing test equipment to receive strategic insights:
  - Descriptive: view your factory performance in real-time via personalized dashboard from anywhere.
  - Diagnostic: use engineering drill-down tools to simplify the root cause analysis process with just a few clicks.
  - Predictive: identify potential quality issues by using the machine learning anomaly detection model to send only "high severity scored" alerts.
- Tap into ISO 27001:2013, the world's best-known standard for information security management systems (ISMS).

PathWave Manufacturing Analytics

PathWave Measurement Analytics

On-premise and cloud-based analytics software for visualizing and analyzing measurement test results

- Access standardized test and measurement visualization and analytics workflow.
- Perform outlier detection and data correlation to compare and explain root cause.
- Facilitate team sharing and collaboration for faster design decisions.
- Gain integration with Keysight instruments and PathWave Test Automation software.

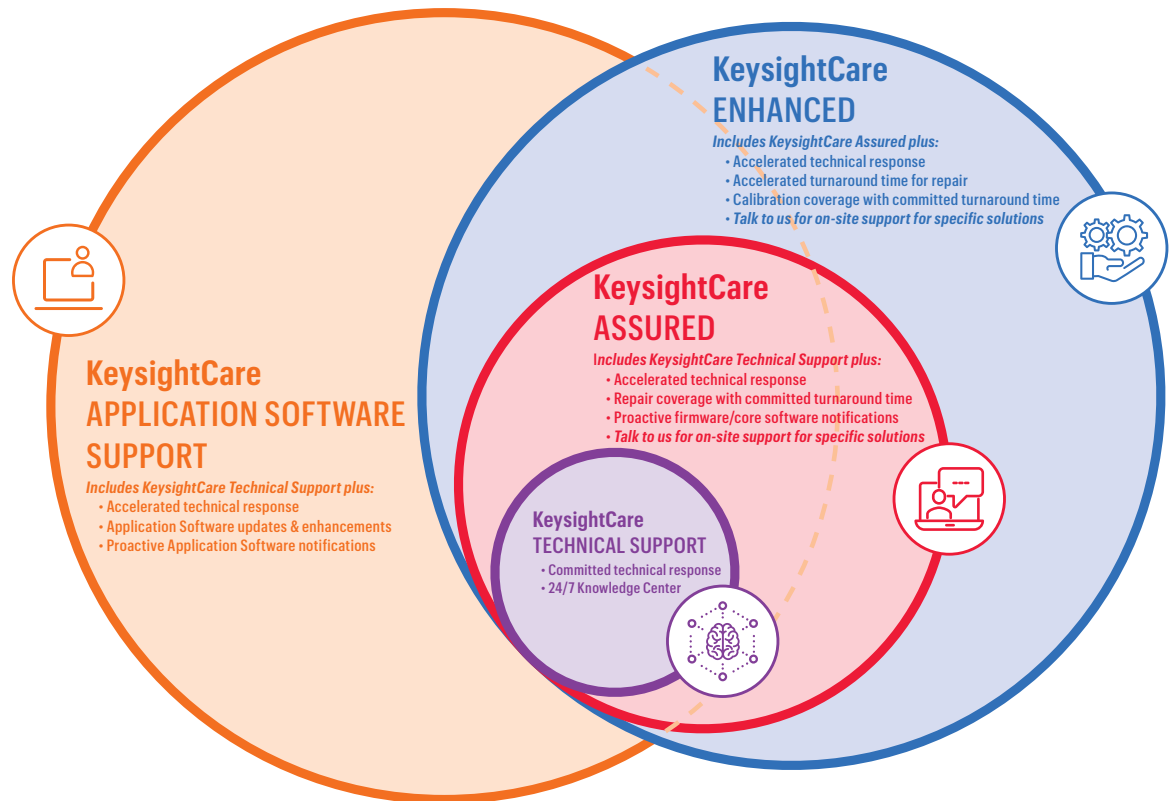# Remove the Barriers to Your Success with KeysightCare

Keysight Support

Receive personalized, proactive, and priority support. Find answers in the Knowledge Center, manage service requests, and interact with Keysight experts. Start here.

Access to experts

Receive priority access, with a committed timeframe, to application experts who are familiar with Keysight application software and the latest standards. Our experts can advise on techniques to help you stay within the most challenging emerging technology test limits.

Stay current

Your application software test and design tools are current and include the latest standards with KeysightCare Application Software Support which provides proactive notifications and software updates.

KeysightCare ENHANCED

Includes KeysightCare Assured plus:
- Accelerated technical response
- Accelerated turnaround time for repair
- Calibration coverage with committed turnaround time
- *Talk to us for on-site support for specific solutions*

KeysightCare ASSURED

Includes KeysightCare Technical Support plus:
- Accelerated technical response
- Repair coverage with committed turnaround time
- Proactive firmware/core software notifications
- *Talk to us for on-site support for specific solutions*

KeysightCare APPLICATION SOFTWARE SUPPORT

Includes KeysightCare Technical Support plus:
- Accelerated technical response
- Application Software updates & enhancements
- Proactive Application Software notifications

KeysightCare TECHNICAL SUPPORT
- Committed technical response
- 24/7 Knowledge Center

KEYSIGHTCARE

Application Software licensing options provide flexibility and support

Flexible licensing options enable you to balance your project's requirements. Your application software may require consistent software operation over a full program lifecycle or may require frequent updates to keep pace with fast-moving, leading-edge applications. Keysight licensing has flexible license terms and types to address your application needs. KeysightCare provides selectable software support as well.

License term	Options
Perpetual	Use perpetual licenses indefinitely. KeysightCare Software Support is available for 1-, 2-, 3- or 5-year subscriptions, and is renewable.
Subscription	Use subscription licenses through the term of the subscription (6-month or 1-, 2-, or 3-year). KeysightCare Software Support is available through the license term.

License type	Descriptions
Node locked	Use node locked licenses on one specific instrument/computer.
Transportable	Use a transportable license with one instrument/computer at a time. Users can transfer the license to another instrument using Keysight Software Manager (internet connection required).
USB portable	Use a USB portable license on one instrument/computer at a time. Users can transfer the license to another instrument using a certified USB dongle (available for additional purchase, Keysight part number E8900-D10).
Floating	Networked instruments/computers can access a license from a server one at a time. Purchase multiple licenses for concurrent usage. Three types of floating license are available: **Single Site**: 1-mile radius from the server; **Single Region**[1]: Americas; Europe; Asia; **Worldwide** (export restriction identified in End User License Agreement (EULA))

1. Americas (North, Central, and South America, Canada); Europe (European Continent, Middle Eastern Europe, Africa, India); Asia (North and South Asia Pacific Countries, China, Taiwan, Japan)

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