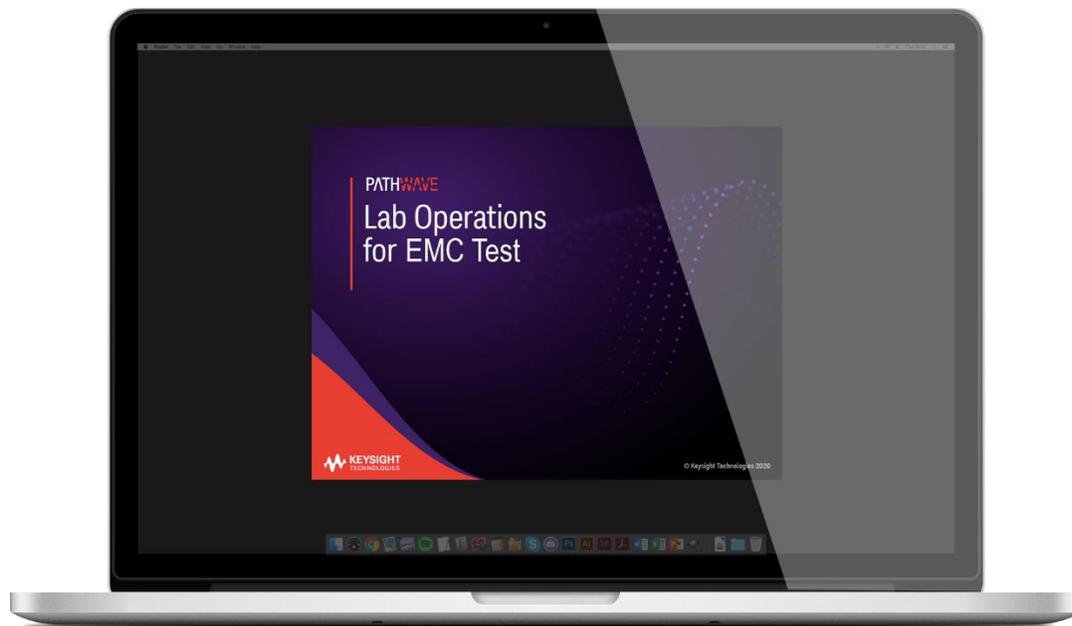


EP1300A PathWave Lab Operations for EMC Test

Centrally manage your EMC laboratory



Accelerate Your EMC Lab Operations

The trends for connectivity and more assisted and autonomous functions in vehicles, combined with the migration to electric vehicle (EV) technology created a surge in electronics installed on cars. Some of these electronic modules operate at high frequencies – telecommunications units, radar – and can generate unwanted in-band and out-of-band electromagnetic (EM) radiation. Additionally, regardless of their operating frequency, all components are prone to external and interfering radiation.

In the interest of best integrating such modules, electromagnetic compatibility (EMC) and electromagnetic interference (EMI) testing is of paramount importance.

Prevent testing bottlenecks

Offering test as a service (TaaS) requires EMC labs to avoid downtime, stay on schedule, and optimize productivity. Planning with spreadsheets or whiteboards can result in a lack of coordination between activities. You should focus on testing radiated immunity or radiated emission, but you are busy manually preparing quotes or reports? Do you struggle aligning your lab activities – scheduling, maintenance and calibration, or staff management - using separate tools? Are your customers at the center of your lab processes and in a position to receive timely information?

The ongoing success of your lab depends on a workflow that is both predictable and flexible. Don't let your outdated lab management software stop you from achieving your goals.

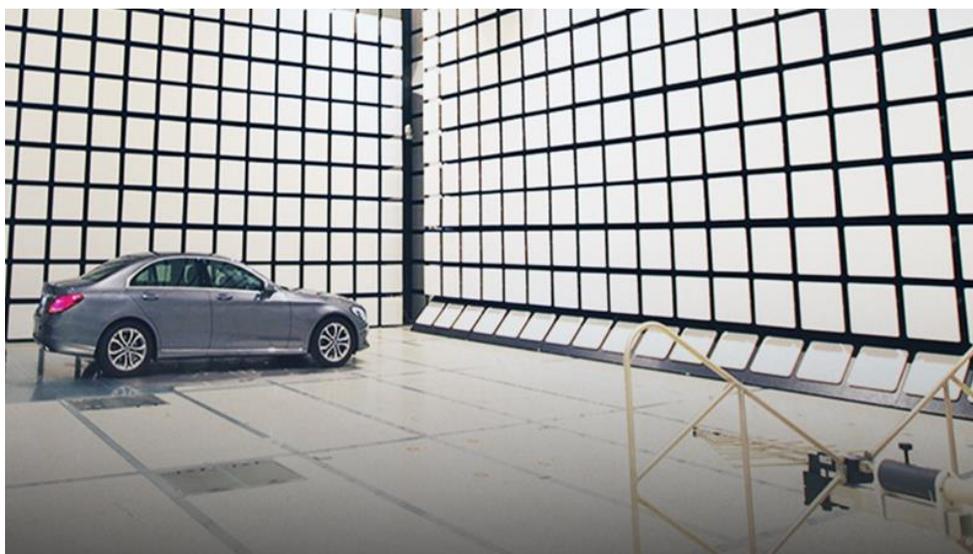


Figure 1. EMC Test Laboratory for Automotive managed by PathWave Lab Operations for EMC Test.

Connect People, Processes, and Results

Keysight's PathWave Lab Operations for EMC connects people, processes, and results. It is a web-based lab management software designed specifically for EMC lab operations to help you better coordinate, improve, and streamline operations in your EMC lab.

PathWave Lab Operations for EMC helps you optimize your lab workflows through the entire testing process. It helps you maximize the test throughput while reducing time to fulfill your projects on schedule.

Key features to support your lab management

Visibility

- PathWave Lab Operations for EMC will automatically transfer test requests to quotes. The overall lab calendar with intelligent auto-filtering, pre-selection, and suggestions supports smooth planning. It offers a consistent response to your adjustments and to the instrumentation downtime.
- Organize your test lab workflow, documents, lab orders, and tasks.
- Plan and optimize your test capacities and sequences. Easily plan, register, and track your tests and projects.
- Share and control test plans, results, data, and other documents.

Efficiency

- Assist you with preprocessed documents for reports, quotes, and statements of work (SoW).
- Generating and distributing reports automatically ensures prompt delivery of results, including supporting information.
- Quickly analyze your data and statistics. Reduce time for reporting significantly.
- Manage and route notifications to your preferred device or email service.

Flexibility

- Tailor the software layout by yourself, while the license structure allows you to conveniently scale this software solution with the size of your lab. Automated, networked, and scalable for any size of testing lab – up to thousands of channels.
- Remotely control your lab and its devices anywhere, anytime.
- Work efficiently thanks to a comprehensive suite of tools.

Software Modules

As every EMC lab is different, it is our aim that this solution perfectly fits your needs. Therefore, we developed a future-proof modular software with core components that can be extended by some optional software modules.

PathWave Lab Operations for EMC scales from smaller test labs up to large laboratories consisting of multiple test systems of different types.

Keysight's PathWave Lab Operations for EMC Test provides powerful features and options to control and monitor EMC test laboratories. It can be adapted to your specific needs and your unique lab with the following core and optional modules.

Core software module

EP1301A Lab Operations EMC Base

Optional module and extension

EP1303A Reporting

Further modules and extensions are available soon.

EP1301A Lab Operations EMC Base

Gain control and get a complete view of your lab

The EP1301A Base Module provides you a holistic view of your processes incl. information about assets, tests, workflows, and progress. The base module is the minimum required software license to be purchased. This license includes the following functions:

- Efficient planning: Test request incl. test plan provided by the software. Test scripts, execution, and tracking generated based on the customer request.
- Flexible scheduling: Overall calendar for allocating tests, staff, and assets
- Extensive Statement of Work (SoW) generation based on the customer request incl. necessary standard EMC tests that need to be executed.

Accelerate your EMC test lab operations by enabling seamless interaction between your lab and other departments and by simplifying the allocation, management and execution of tests and test plans between your laboratory staff. Synchronize assets and expertise to ensure completion of the right tests at the right time.

Figure 2 provides a screenshot of the Core Dashboard. Through this dashboard the user can navigate the test requests, the lab schedule, all executed and planned tests as well as the test definition and programming, and even find free timeslots for upcoming tests.

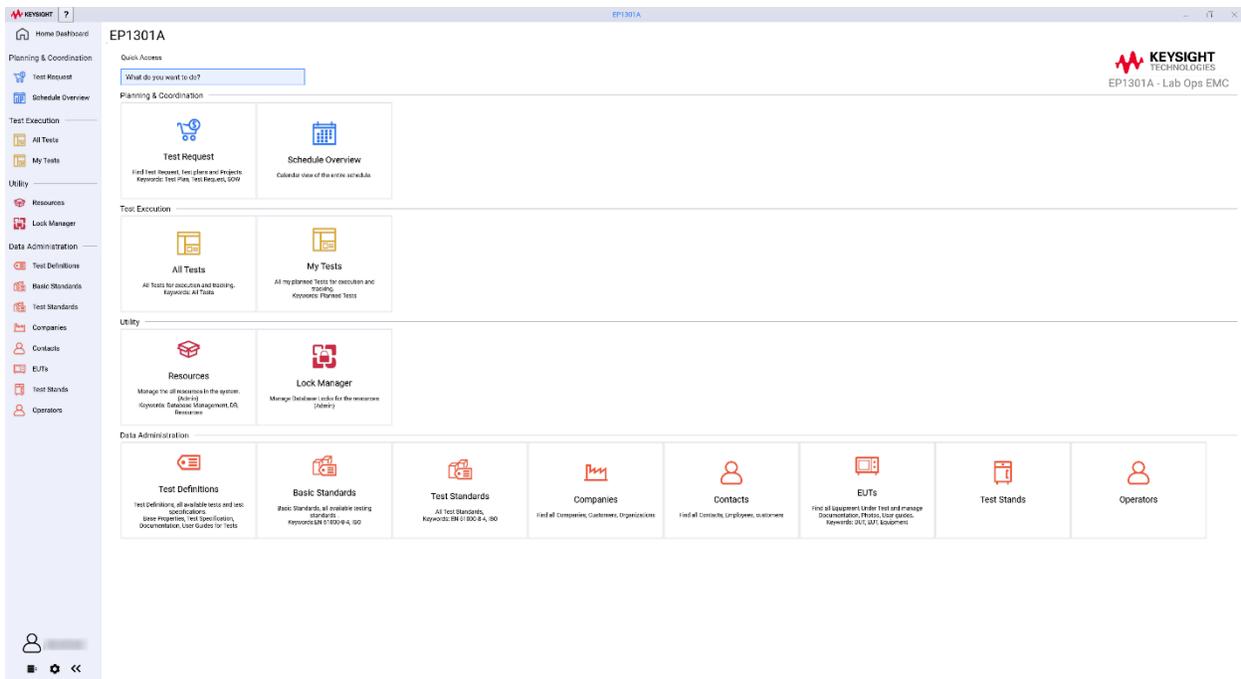


Figure 2. EP1301A Core Dashboard – Keep the overview.

Keep the overview with the Base platform

- Connect, control, and monitor test benches remotely.
- Deploy software updates without test system downtime.
- Open APIs allow seamless integration into your existing IT solutions.

Start tests remotely

Start your intended tests at any time: Tests can be scheduled to run immediately or at a specified time. Test programs and associated libraries can be uploaded from your file browser with drag and drop. Some tests that are already prepared as standard tests can be executed directly without extensive programming:

- Electromagnetic Compatibility (EMC) tests
- EMC Data - predefined standard tests
- Safety tests
- Environmental tests

Further, the software also tracks your EMC data model including cost factor per test, audit trails and certifications for operators.

Monitor and control your test systems remotely

- Test benches can be controlled while tests are running. Tests can be started, suspended, and cancelled remotely.
- Test bench overviews show the current status of test systems.
- Test channel measurements like voltage, current and power, are available in the browser interface.

Stay updated: Notifications

- Notifications are shown in the browser interface and are also delivered by email.
- Examples of typical notifications:
 - You can subscribe to Test Benches to receive notifications about important events on your test systems, for example, a test finishing.
 - You can subscribe to your tests, so you are immediately notified if your test is started, interrupted or finished.

Document management made easy

- Upload and manage any documents you need with a simple drag and drop from your file explorer. Download them from anywhere.
- Share the link to files easily for download or view.

Extensions

EP1303A Reporting

Generating reports is a time-consuming task with a lot of potential for (human) mistakes. Especially when it comes to complex, sequenced tests, that need to be performed it can be challenging for the laboratory staff to generate the reports in time and to fulfill the project on schedule. The EP1303A Reporting extension enables advanced processing and distribution of test results with a sophisticated visualization UI and API for automated access.

Simplify your reporting preventing repetitions and human mistakes that cause delays. It helps you achieve test insights faster through automated report creation and distribution of results to the appropriate recipients. With just a few clicks you can:

- Automated test report generation based on the test results.
- Create reports through templates / visual editor
- Evaluate test results (red or green)
- Track your related tests

Figure 3 provides a screenshot of the generated one-click report.

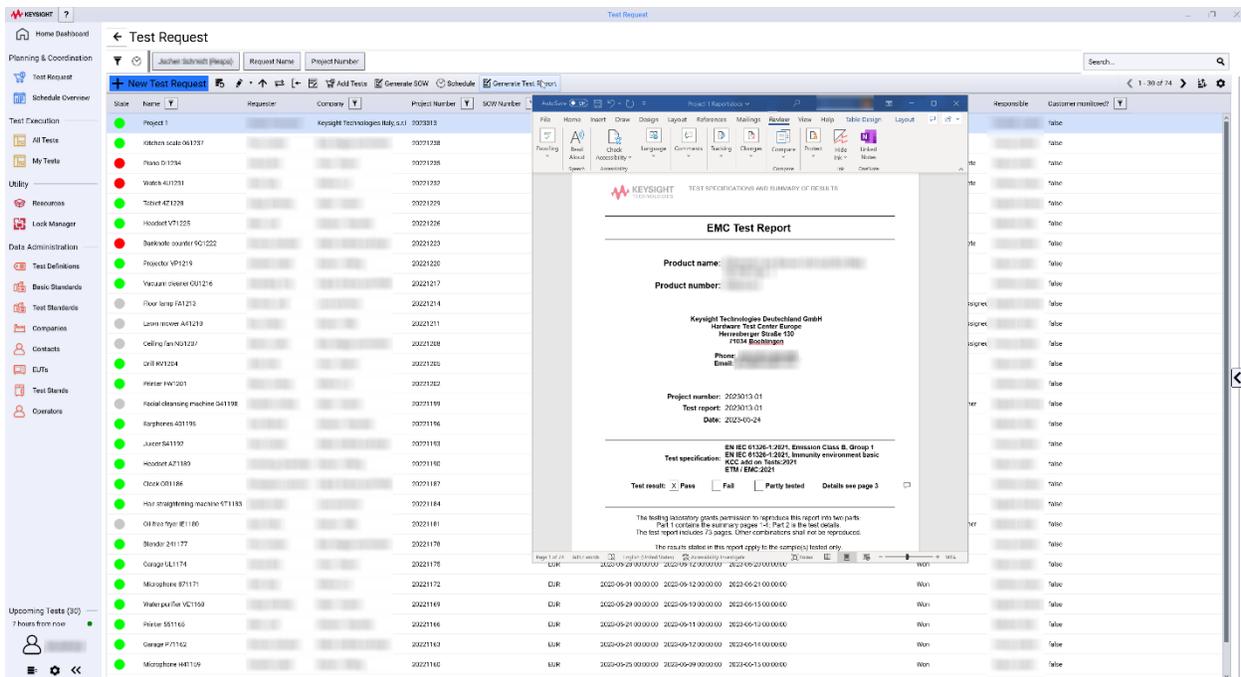


Figure 3. EP1303A Reporting – Generate your EMC Test Report with just one click.

Customization - Tailor the software to your needs

As every EMC lab is different and unique, it is our aim that this solution perfectly fits your needs – our experts will provide you with individual customization support. An import/export API provides you the opportunity to integrate the software into your existing IT ecosystem and if you are interested in any kind of customization – we will be there.

Keysight can work with you to:

- Implement new features in the software that fit your needs based on requirements we work on together with you.
- Analyze your lab's workflow and propose ways to optimally realize this workflow within the software.

Contact your sales representative to create a detailed statement of the requested customization.

Centrally Manage Your EMC Laboratory

Don't waste time and start now a transition in your lab management to ensure that your laboratory staff can stay focused on their core activities while you optimize throughput by synchronizing expertise and resources.

For more information on hardware and server requirements for the software, please see the [product fact sheet](#).

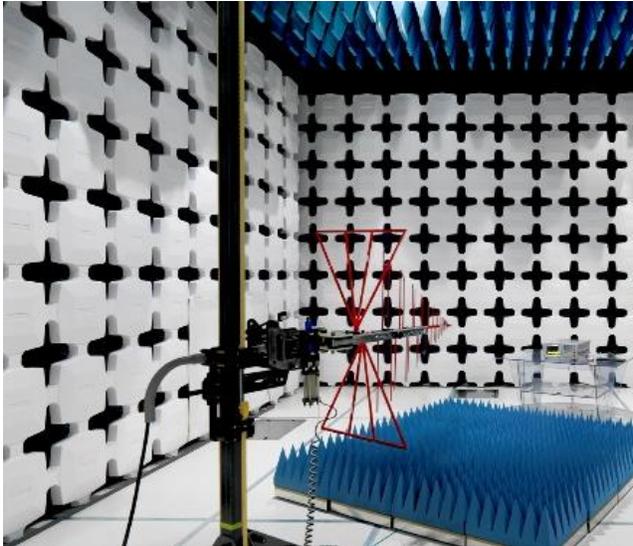


Figure 4. EMC Test Laboratory

Keysight enables innovators to push the boundaries of engineering by quickly solving design, emulation, and test challenges to create the best product experiences. Start your innovation journey at www.keysight.com.