

R&S®ELEKTRA

EMC Test Software

Swift and reliable
measurement of
electromagnetic
disturbances



R&S®ELEKTRA EMC Test Software At a glance

The R&S®ELEKTRA EMC test software is a solution that controls complete EMC systems and automates measurements on equipment under test (EUT) that is being tested for emissions (EMI) and immunity (EMS) compliance.

New, reliable and highly efficient automatic and interactive measuring procedures create accurate results and allow in-depth analysis of EMI and EMS measurements during development and certification. This reduces the time needed to develop and certify products.

R&S®ELEKTRA features a predefined software library in accordance with the common standards – including relevant limit lines, test setups and transducer factors – to simplify configuration and enable users to start testing faster.

The ability to create EUT test plans allows users to build and define EUT-applicable tests and prepare comprehensive reports in advance. The dashboard with favorites (frequently used items), tagging and search functions and the all-in-one page interface enhances usability and allows users to easily navigate through the huge amount of data created during EMC testing.

Planning, execution and reporting of test campaigns based on the EUT enables users to maintain an overview. Test setups, measurement procedures and reports can be tailored to user requirements for tests that differ from the standards. R&S®ELEKTRA has an open interface that supports a huge variety of instruments and system components.

Automated EMI measurement with R&S®ELEKTRA

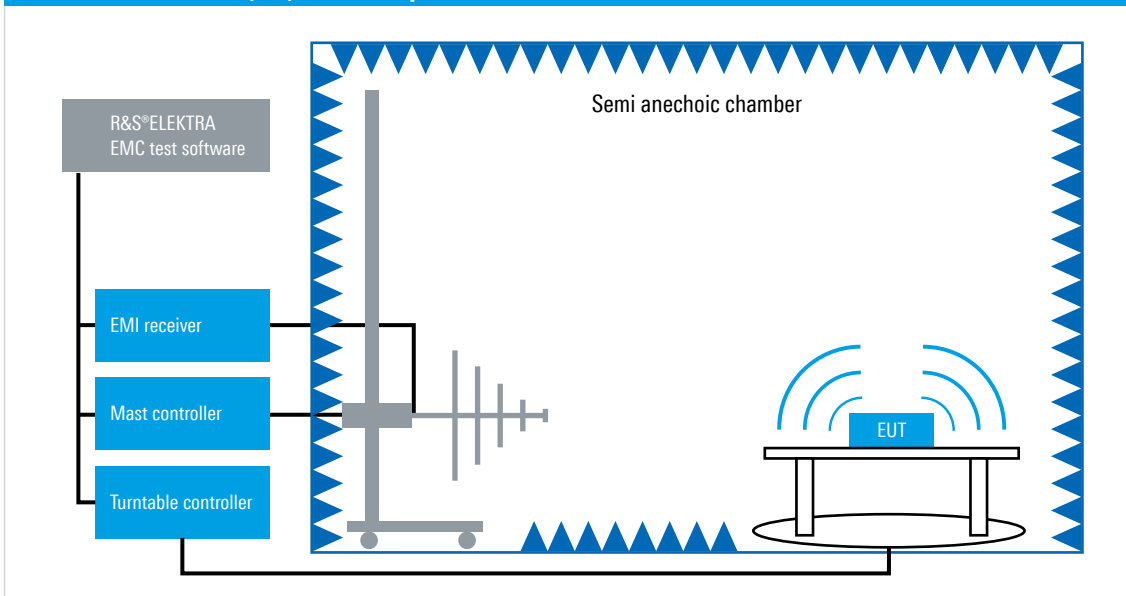


R&S®ELEKTRA EMC Test Software Key features

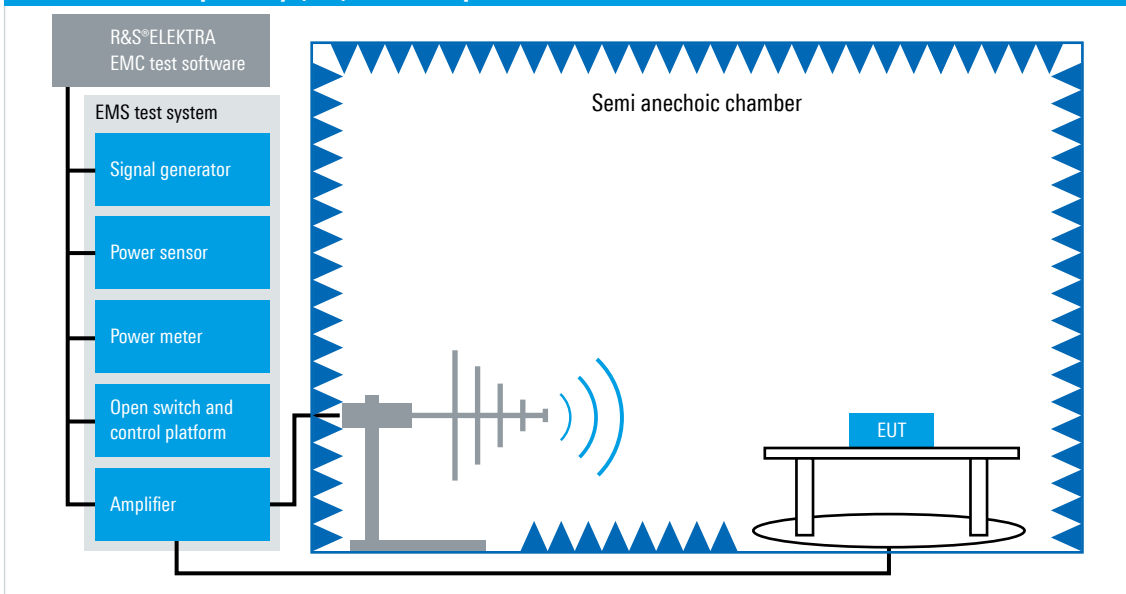
Key facts

- ▀ Creates test plans with multiple tests for easy management of EUTs
- ▀ Intuitive, interactive and automatic EMC measurements
- ▀ Covers most common EMC standards with predefined settings/templates
- ▀ Efficient result analysis and reporting
- ▀ Scalable and flexible platform – from small systems for R&D debugging to multi-site EMC certification labs with multi-user and multi-project management

Radiated emission (RE) test setup



Radiated susceptibility (RS) test setup



Intuitive user interface

An intuitive interface that is simple to use and navigate through



Sleek, fast and modern

With a revolutionary user interface (UI) design, R&S®ELEKTRA is future-ready. The sleek, fast and modern UI focuses on good typography with a large, scalable, high-resolution design optimized for touchscreen devices.

Favorites dashboard

Frequently used elements such as EUT test plans, test templates, test results, hardware setups and reports can be directly “pinned” to the dashboard for quick and convenient access.

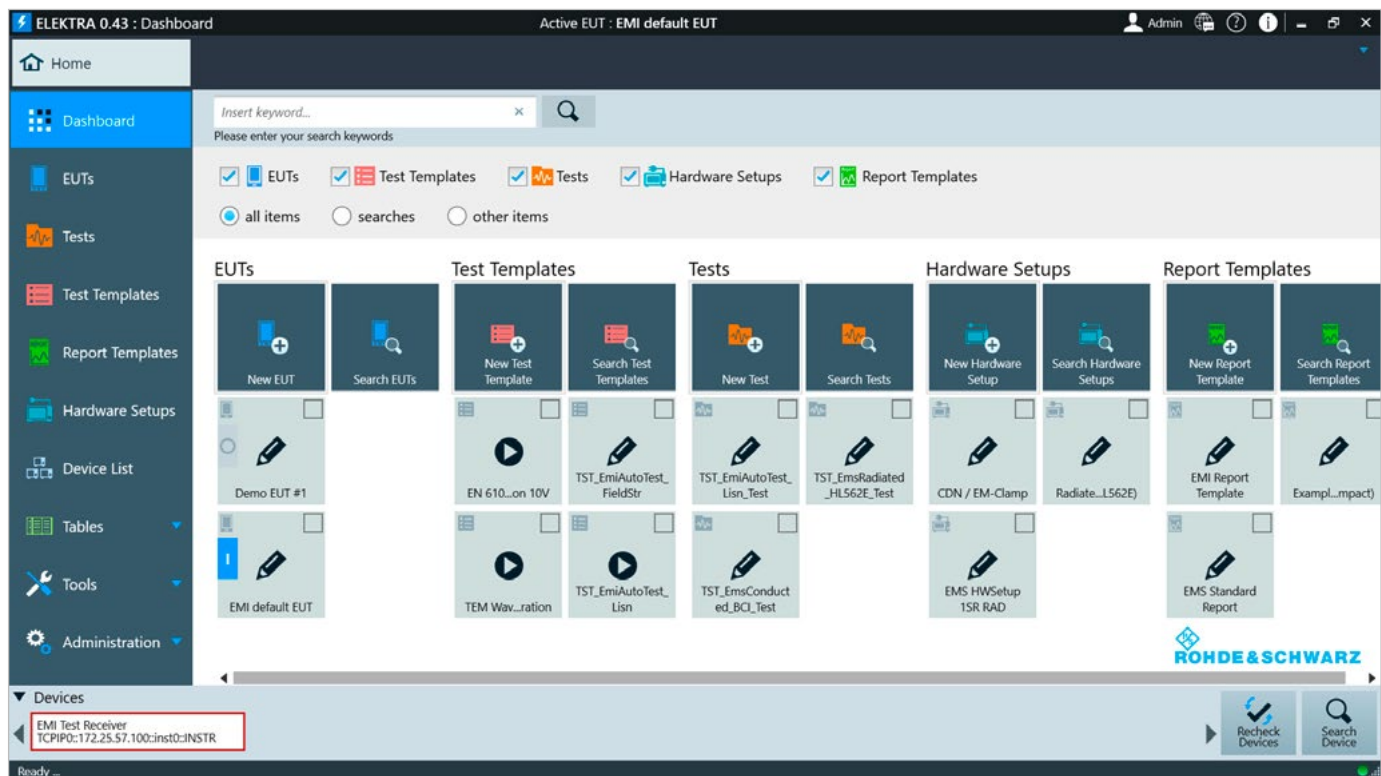
Tagging, filtering and searching

Quickly find your key elements by typing keywords in the integrated search column. Apply user-defined tags to organize and classify your elements. Use filters to narrow down the search results by frequency range or measurement category.

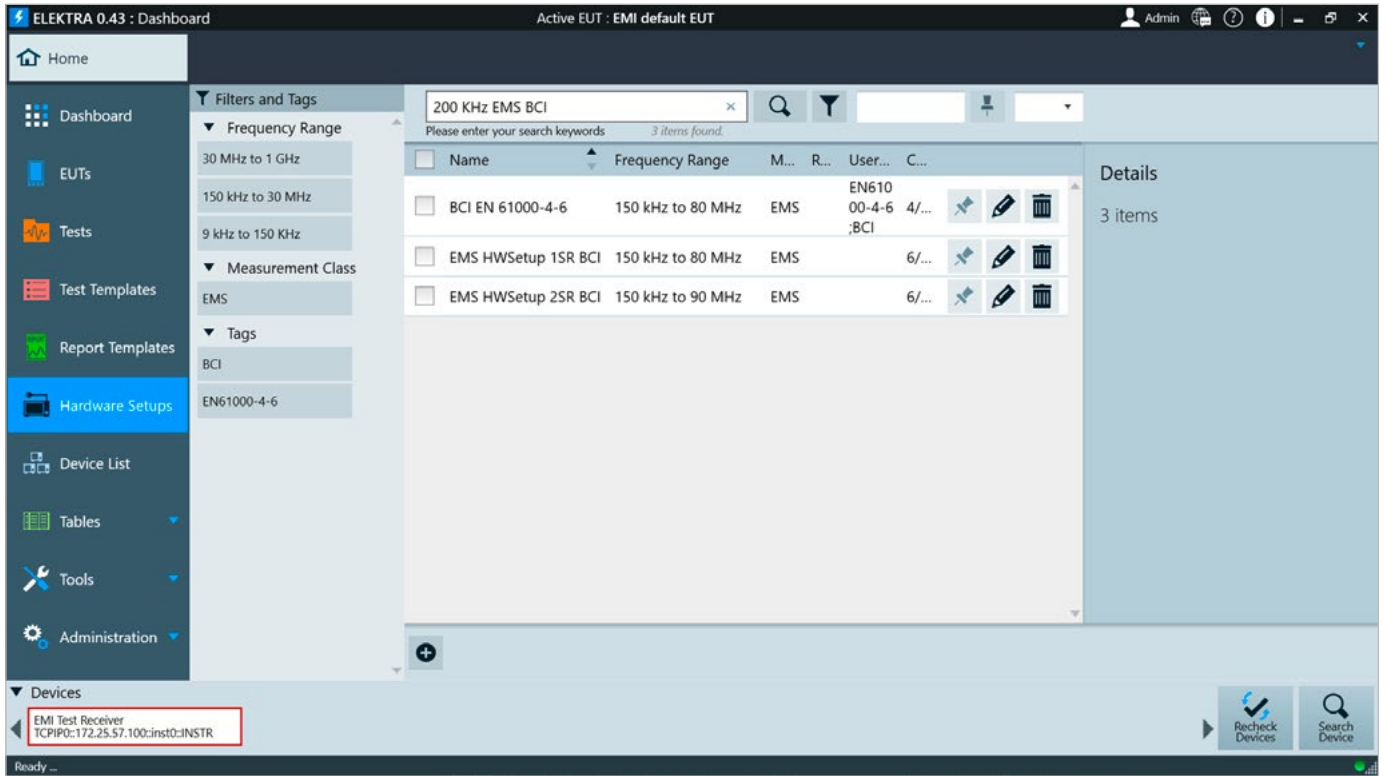
All-in-one page interface

R&S®ELEKTRA introduces an all-in-one page interface design that totally eliminates the need for window hopping. The all-in-one page design concept allows easy configuring and setting up of tests by accessing all parameters to generate a user-defined test. To view and compare data, users can open multiple tests on multiple windows.

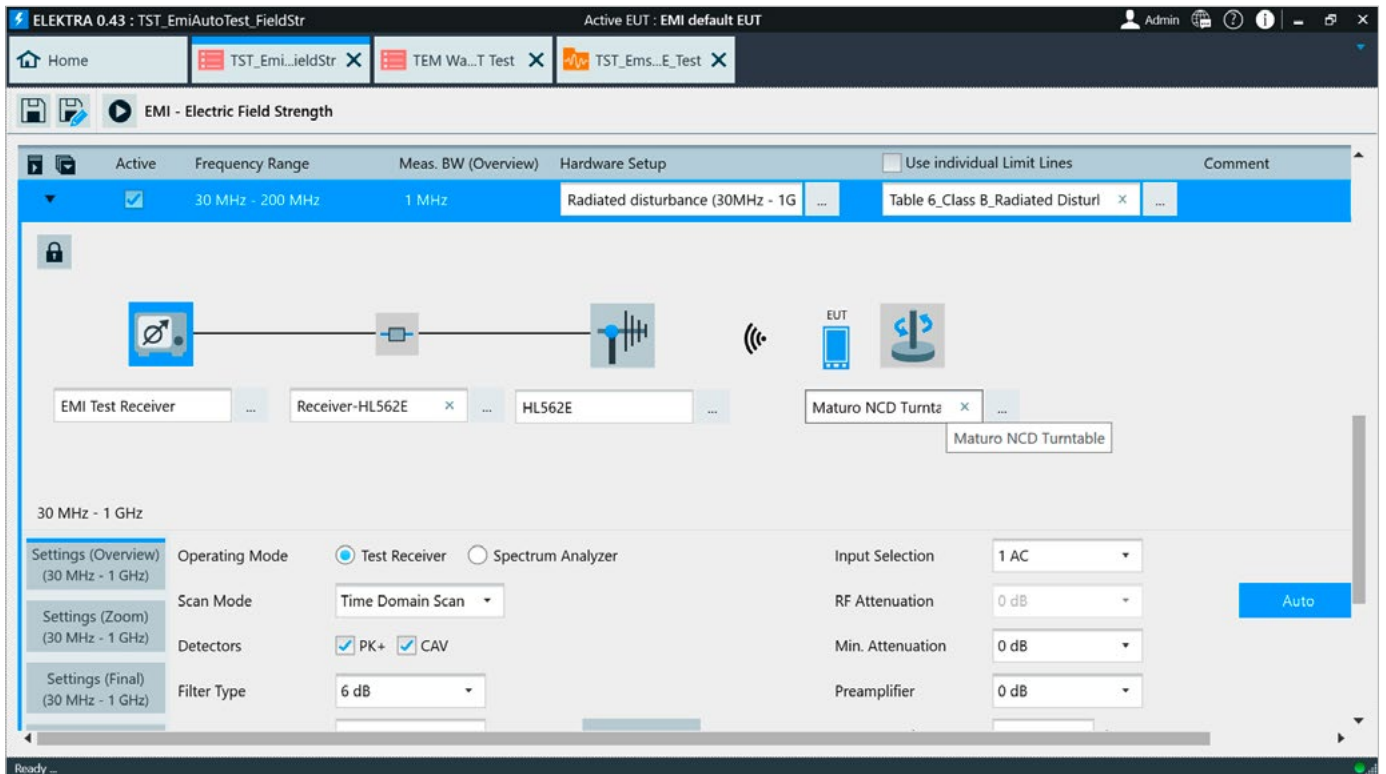
The R&S®ELEKTRA dashboard with multiple favorite items “pinned” for one-click access



Powerful search function that combines searches in different categories with searches using filters and tags



EMI autotest template where hardware setups and configurations can be viewed and changed directly with the all-in-one page interface



Get started quickly

R&S®ELEKTRA improves usability for new and existing users of EMC test software, with predefined libraries for common EMC standards, EUT centric test plans as well as automatic identification of connected instruments and automated field uniformity evaluation for EMS.

Large library of predefined test setups for common EMC standards

The large database of libraries can be easily generated using the configuration wizard that provides test setups in accordance with common EMC standards. These predefined test setups enable new and existing users to instantaneously perform tests with minimal preparation.

Standards	EMI	EMS
CISPR 11	supported	not applicable
CISPR 14	supported	supported
CISPR 15	supported	not applicable
CISPR32	supported	not applicable
CISPR35	not applicable	supported
IEC61000-4-3	not applicable	supported
IEC61000-4-6	not applicable	supported
CISPR 12	supported	not applicable
CISPR25	supported	not applicable
ISO 11451	not applicable	–
ISO 11452	not applicable	–
MILSTD461	supported	–
ETSI/wireless	–	–

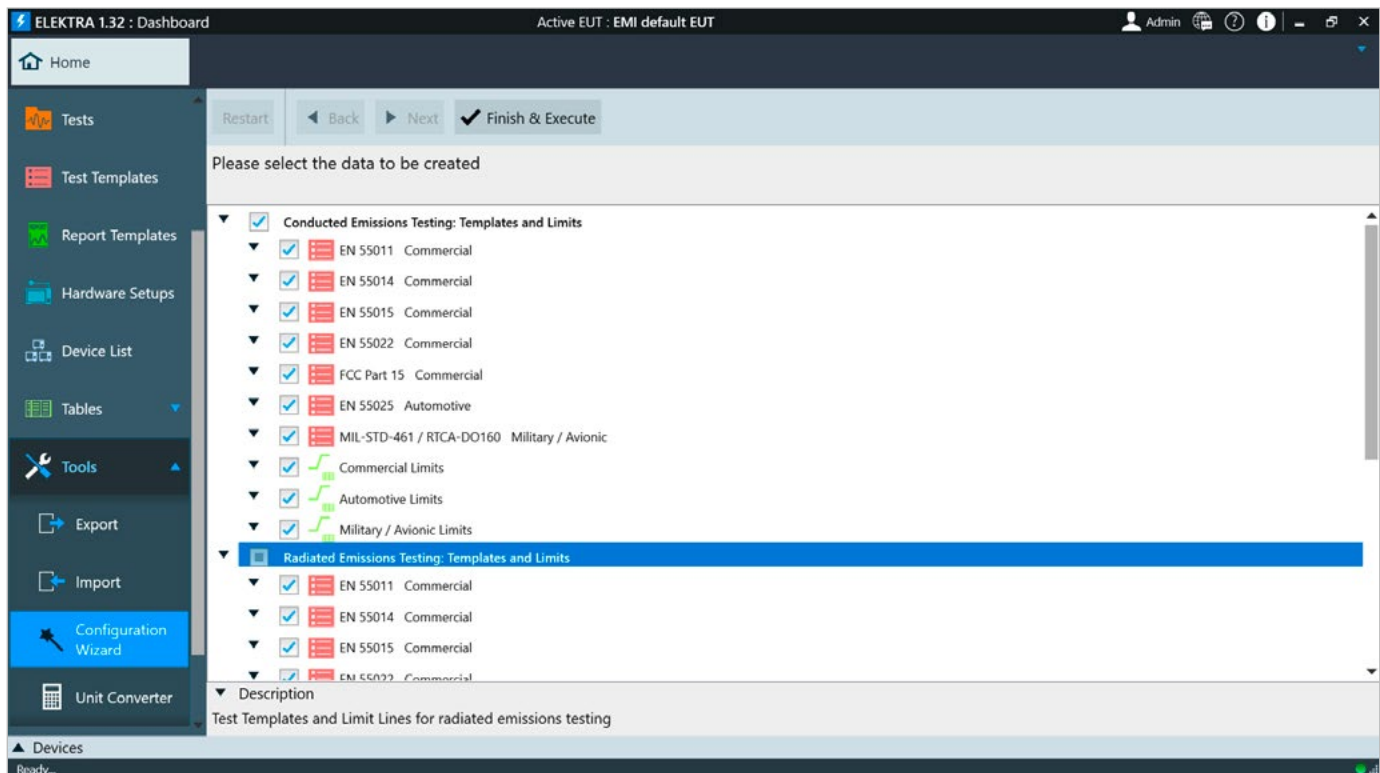
EUT centric test campaign management

The increasing complexity of EUTs results in the need to meet different requirements from various EMC standards. R&S®ELEKTRA gives users the ability to build and manage a test plan around a specific EUT. This prevents the user from missing a test and helps generate a comprehensive report.

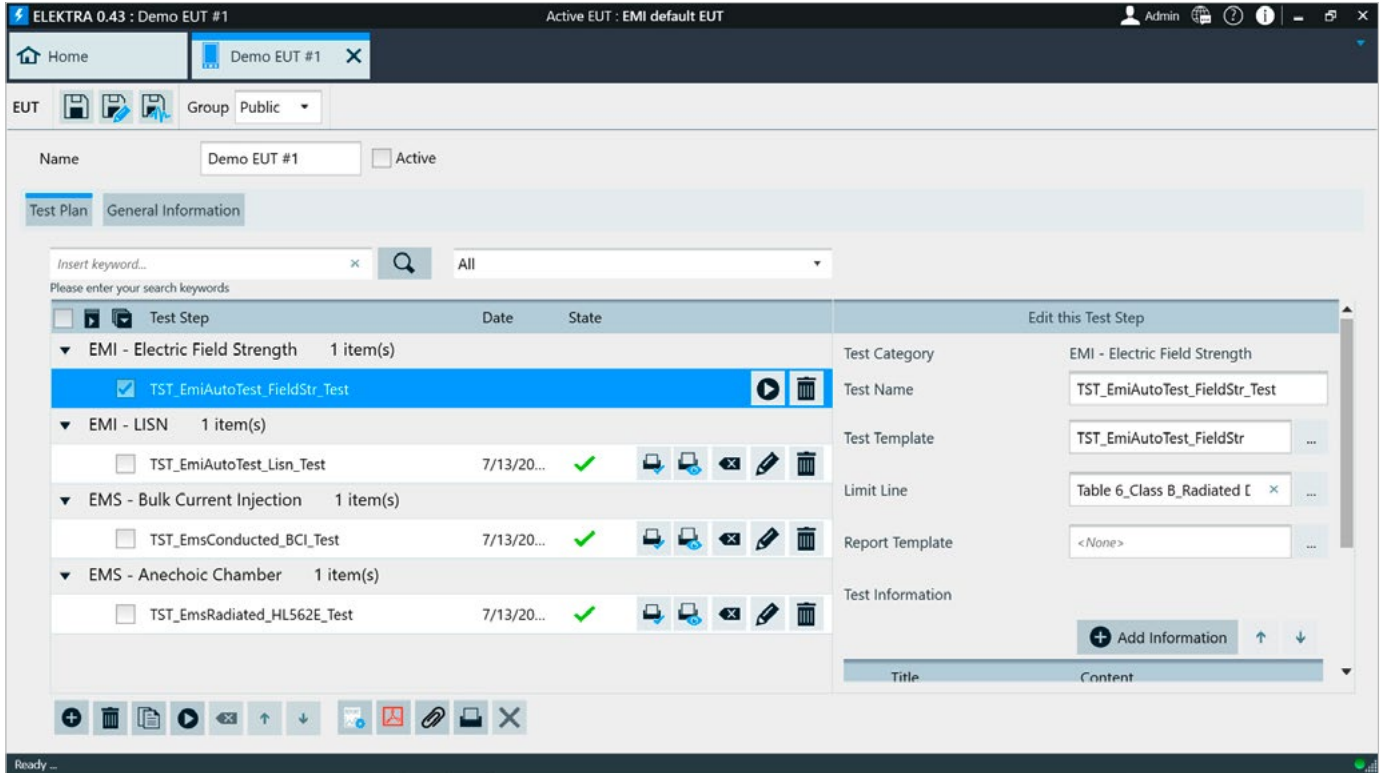
Automatically identifies connected instruments

R&S®ELEKTRA shortens the hardware setup process by automatically detecting the connected instruments that are available for testing.

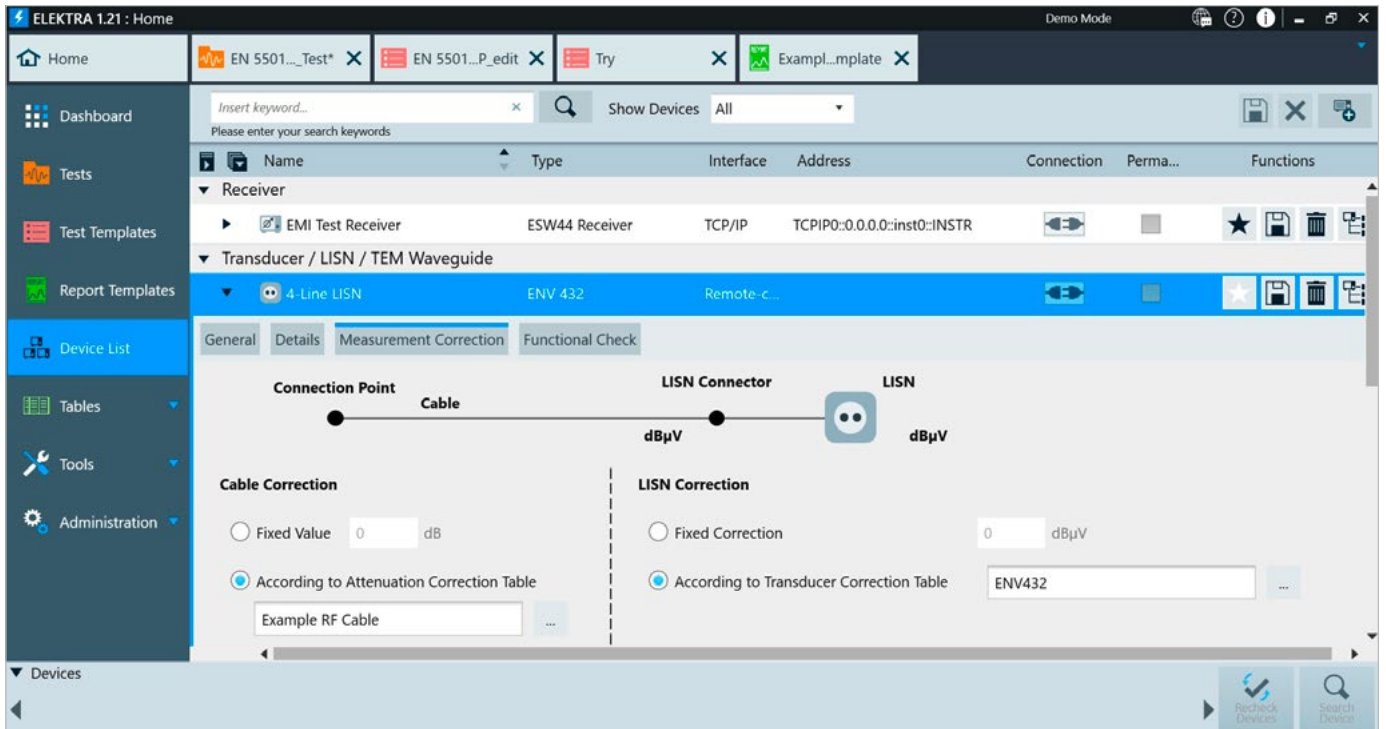
Configuration wizard containing multiple predefined libraries



EUT test plan consisting of different substests



Device list showing previously used instruments and just one detected connected device



Increase your test throughput

R&S®ELEKTRA is designed for compatibility with powerful EMC testing instruments to boost testing speed with automated test execution.

Automated execution of tests

R&S®ELEKTRA allows automated execution of tests by controlling and monitoring the test instruments used. The automated test execution and interactive test modes can be toggled to enable detailed debugging. Users can simulate and validate test configurations and procedures prior to actual testing to ensure hardware resources are used efficiently.

Parallel operation

R&S®ELEKTRA increases productivity by preparing tests and generating reports in parallel with automated test execution. Using multiple windows enables the user to compare different test runs.

Optimize the performance of your receivers

R&S®ELEKTRA fully utilizes the capabilities of modern receivers to increase measurement speed.

R&S®ELEKTRA performs automated disturbance measurements with the R&S®ESW, R&S®ESRP, R&S®ESU, R&S®ESR and other test receivers, as well as the R&S®FSW, R&S®FSV and R&S®FSL signal and spectrum analyzers.

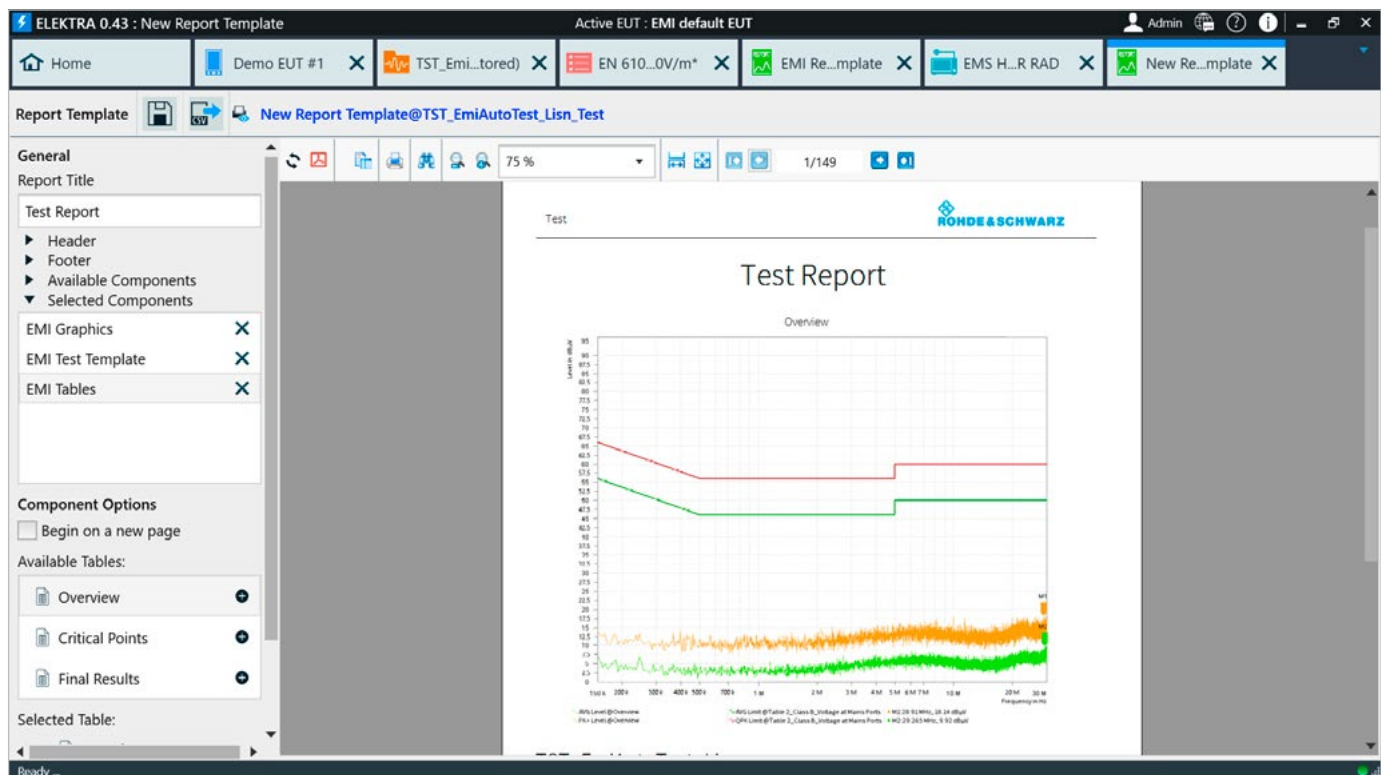
R&S®ELEKTRA automatically controls the equipment generating the EMS test level and manages amplifier band and signal path switching. It also controls single or multiple EUT monitoring channels.

The R&S®ELEKTRA automatically switches the phases of artificial mains networks when measuring conducted disturbances. The software saves all measured values for data reduction and further analyses.

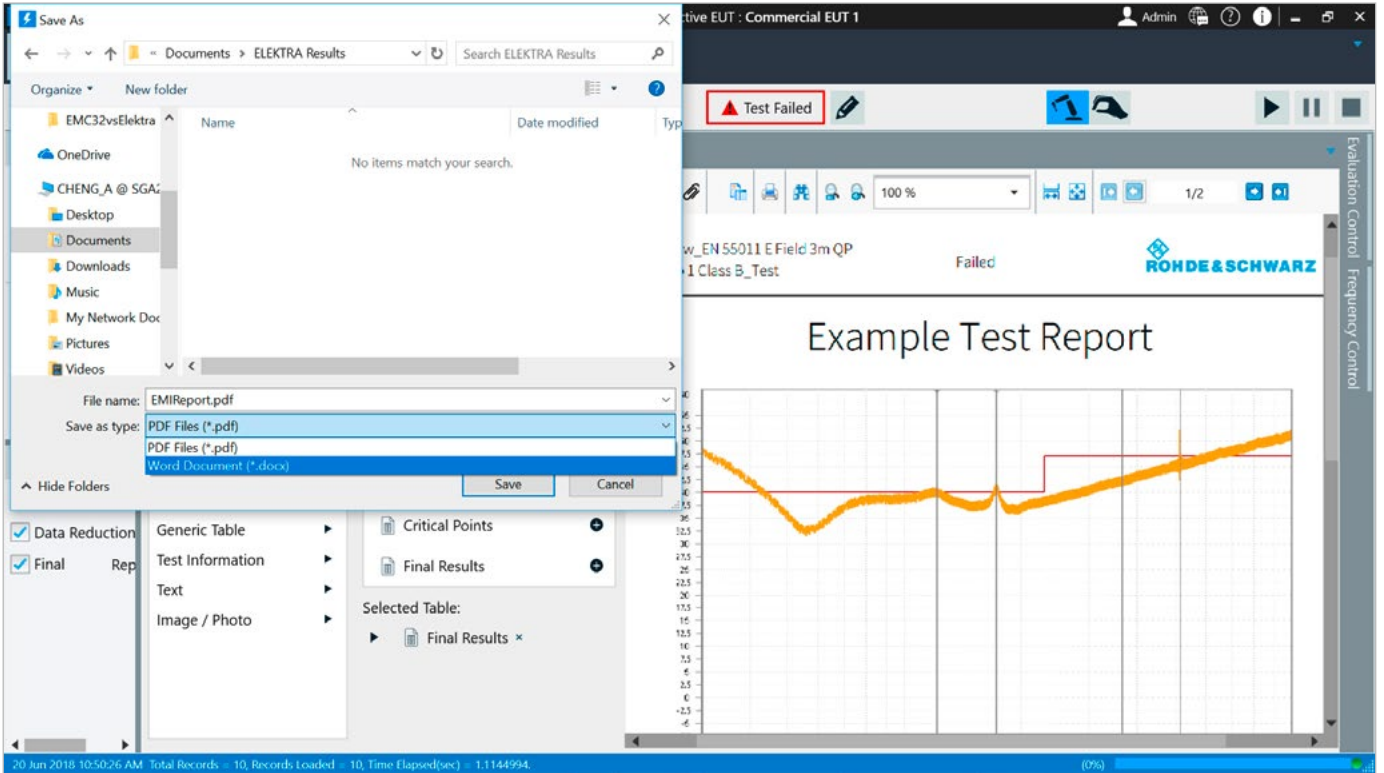
Easily analyze and publish your results

The R&S®ELEKTRA automatically collects, analyzes and evaluates measurement data for the user for each individual test performed. It also features an easy-to-generate test report function that saves the report in .pdf or .docx format.

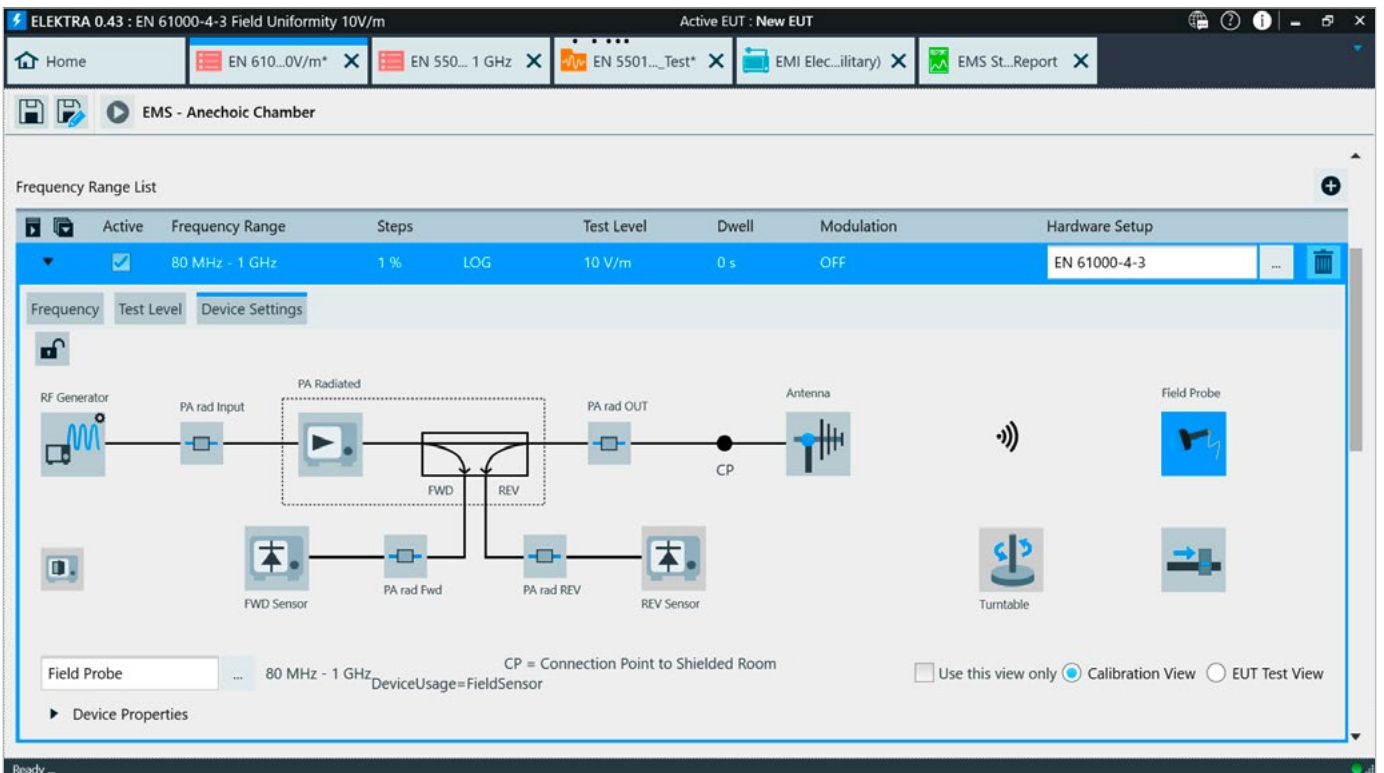
Multiple operations (e.g. test running, test template, report template, hardware setup) can be performed simultaneously



Saving analyzed and evaluated measurement test report to .docx and .pdf format



Simultaneously working on other templates when a test is running

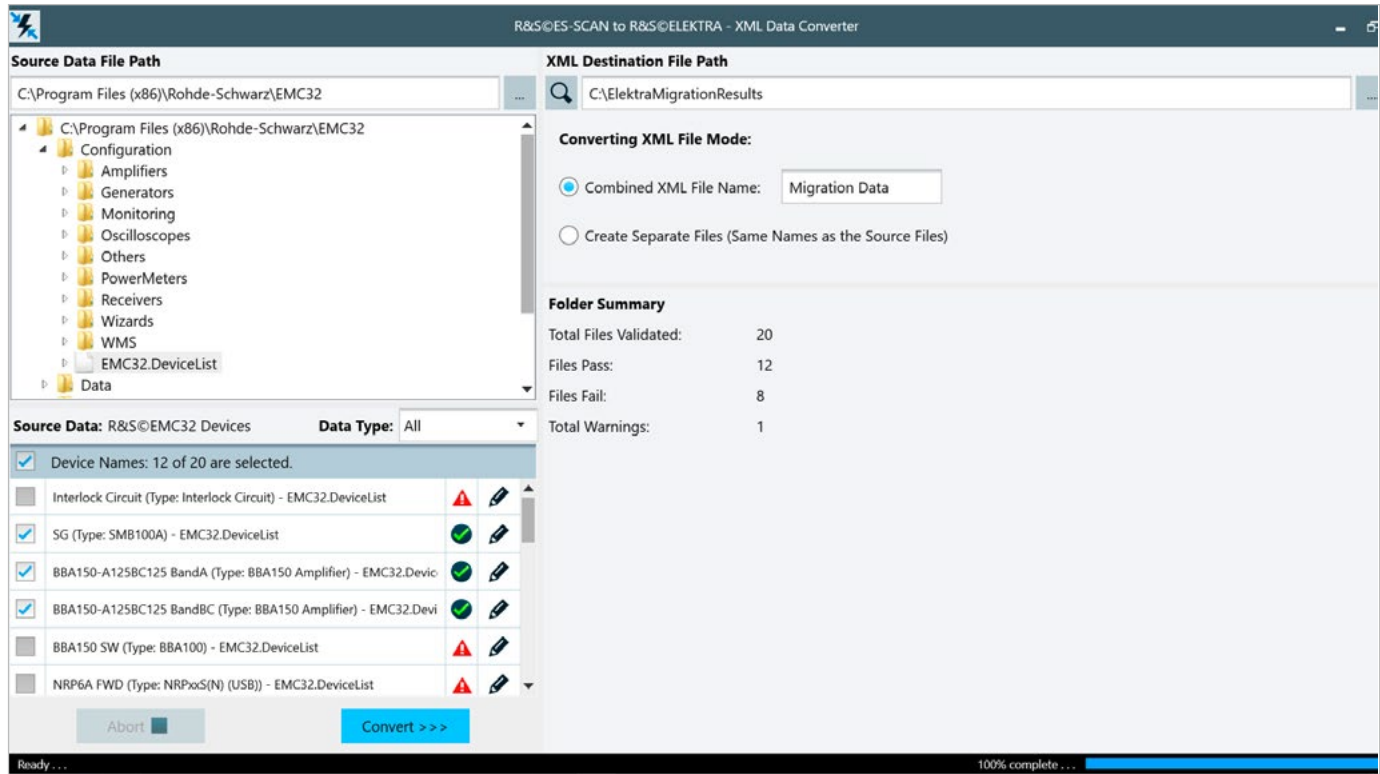


Migration features

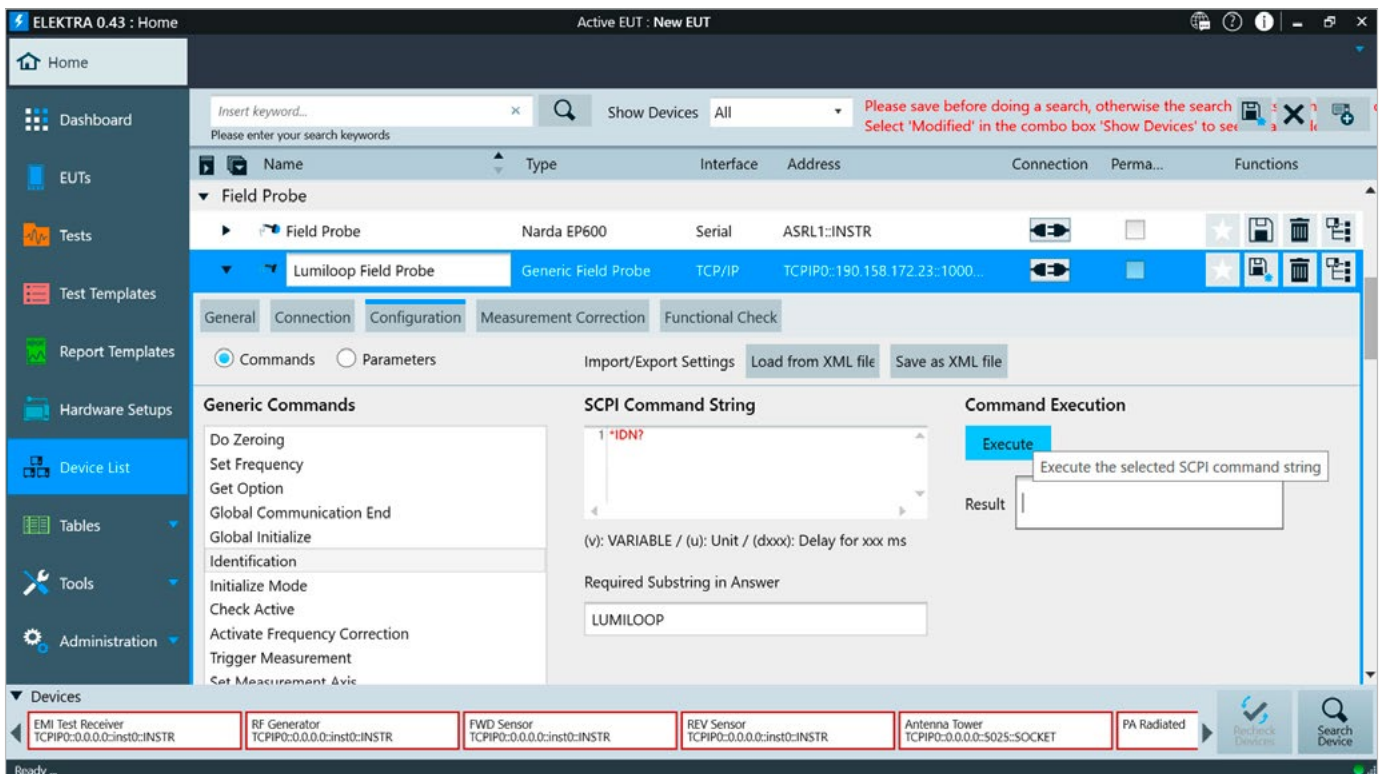
Migration wizard

R&S®ELEKTRA allows existing R&S®EMC32 users to easily migrate the hardware setup, test templates, settings and tests from R&S®EMC32 to R&S®ELEKTRA.

Migration wizard



Generic drivers that support third-party instruments



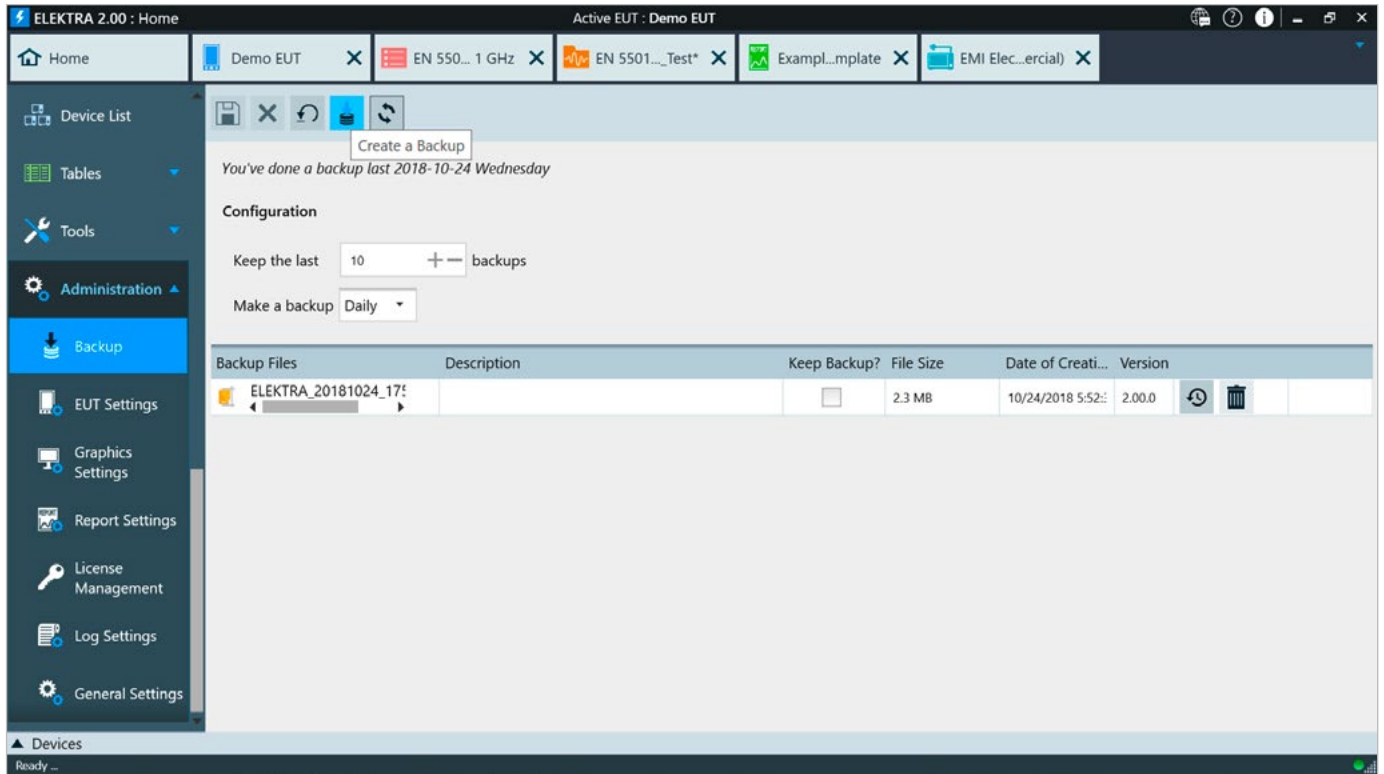
Supports variety of instruments and system components

Generic drivers provide flexibility to interface with various instruments. The library of test setup allows easy exchanging of instruments by detecting available hardware.

Backup

R&S®ELEKTRA provides both automatic and manual backup options to ensure configurations, setups, test results and test reports are archived and can be restored.

Automatic and manual backup options available on R&S®ELEKTRA



Ordering information

Designation	Type	Order No.
License dongle	R&S®EMC PC	5601.0018.02
EMI test software	R&S®ELEMI-E	5601.0030.02
EMI extension to advanced	R&S®ELEMI-A	5601.0053.02
EMI extension to system	R&S®ELEMI-S	5601.0076.02
EMI advanced test software package	R&S®ELEMI-EA	5601.0424.02
EMI system test software package	R&S®ELEMI-EAS	5601.0382.02
EMS test software, conducted	R&S®ELEMS-C	5601.0099.02
EMS test software, radiated	R&S®ELEMS-R	5601.0118.02
EMC generic drivers	R&S®ELEM-DRV	5601.0230.02

Service that adds value

- | Worldwide
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- | Customized and flexible
- | Uncompromising quality
- | Long-term dependability

Rohde & Schwarz

The Rohde & Schwarz electronics group offers innovative solutions in the following business fields: test and measurement, broadcast and media, secure communications, cybersecurity, monitoring and network testing. Founded more than 80 years ago, the independent company which is headquartered in Munich, Germany, has an extensive sales and service network with locations in more than 70 countries.

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