R&S®ELEMI-T
COMPROMISING EMANATIONS MEASUREMENT SOFTWARE

Convenient management of TEMPEST measurements and reporting

AN OPTION OF R&S®ELEKTRA

Product Brochure
Version 01.00

ROHDE&SCHWARZ
Make ideas real

AT A GLANCE

The R&S®ELEMI-T test software is used to measure and analyze compromising emanations. It creates an environment that makes it easier to find, investigate, measure, record and report these emanations.

R&S®ELEMI-T automates wherever possible but permits local control of the instrumentation for in-depth investigations. It provides tools to assist with information capture and storage and, finally, to automate report generation.

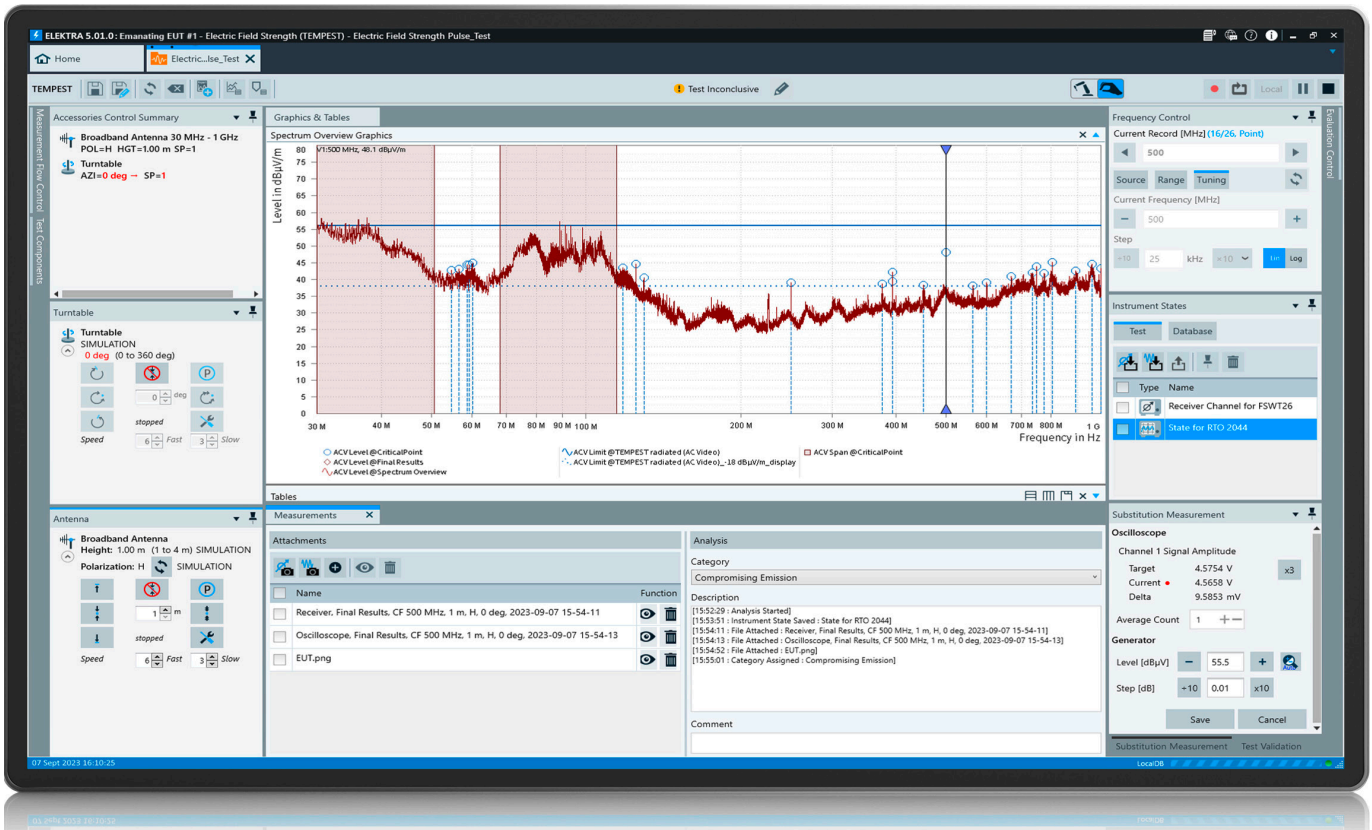
Users can create EUT-specific test plans with multiple tests and configure test templates, hardware setups and report templates. The all-in-one dashboard-style user interface provides quick and easy access to all desired functions and parameters. Favorite items along with tagging and search functions enhance usability and make it easier to navigate the huge amounts of data created during testing.

EUT-centric planning, execution and documentation of test runs enable users to maintain an overview. Test setups, measurement procedures and reports can be tailored to user-specific test requirements.

R&S®ELEMI-T is based on the proven software platform R&S®ELEKTRA, the leading software for EMC measurements.

Key facts

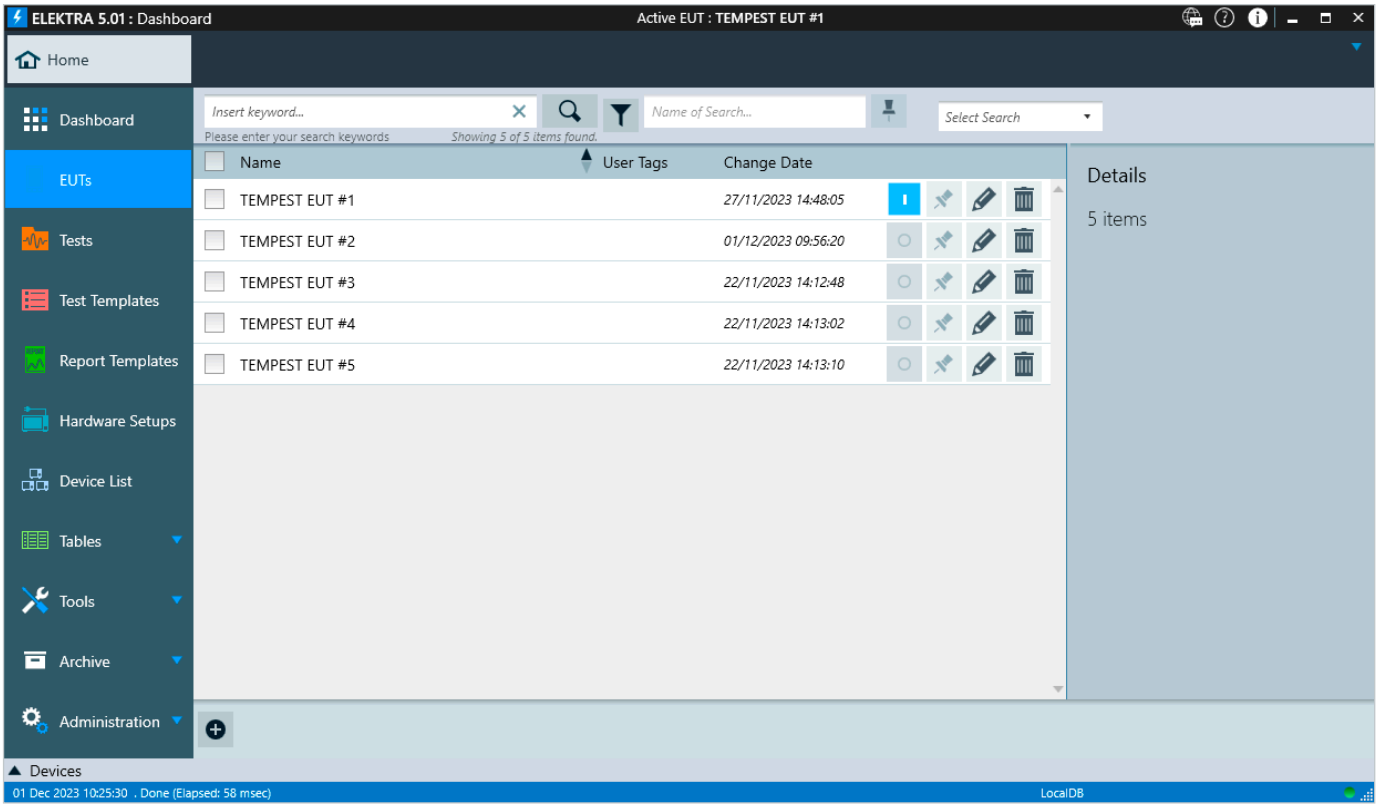
- Creation of test plans with multiple tests for easy EUT management
- Intuitive, interactive and automated TEMPEST measurements
- Most common TEMPEST standards are covered
- Efficient result analysis and reporting
- Based on the proven measurement software R&S®ELEKTRA



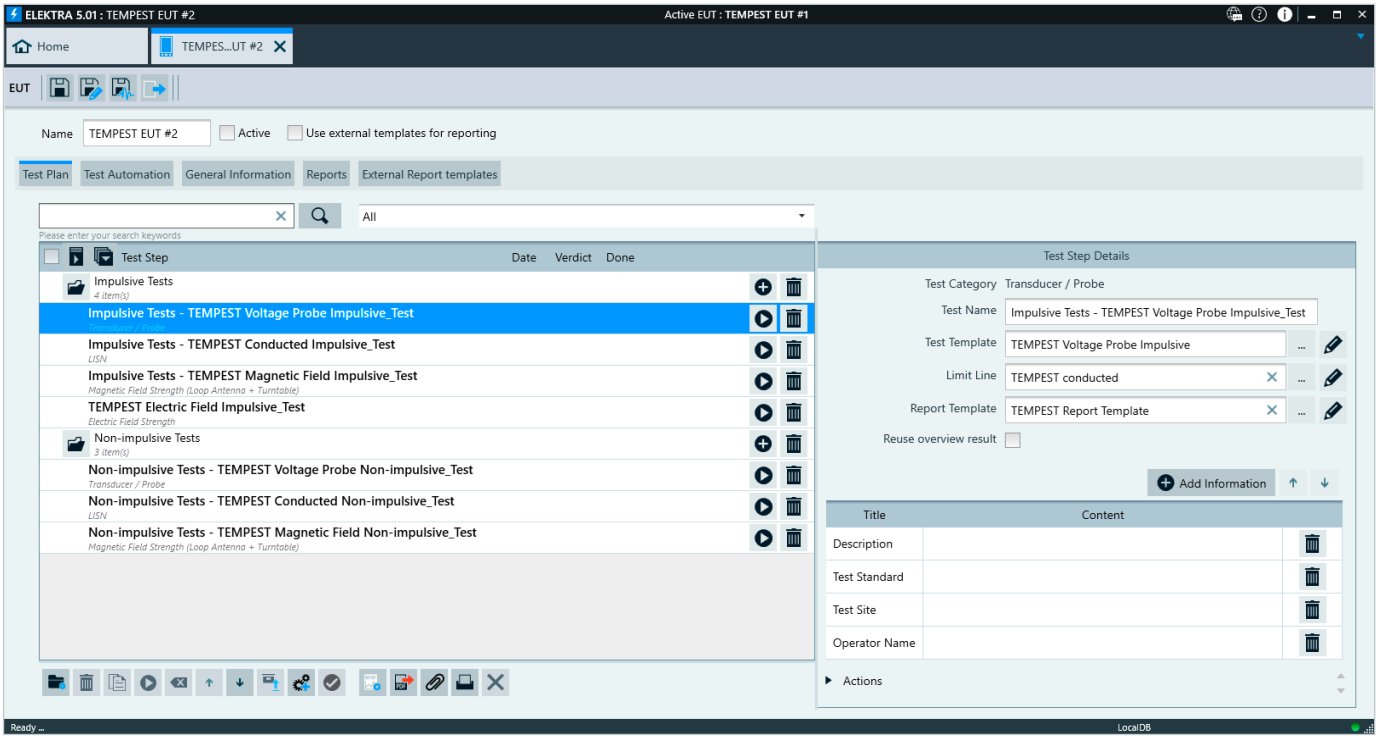
EUT-CENTRIC TEST PLAN MANAGEMENT

All tests start with an EUT. R&S®ELEKTRA gives users the ability to build and manage a test plan around a specific EUT. A test plan helps to keep track of even complex tests, which prevents users from missing a test and helps to generate a comprehensive report.

Multiple EUTs help to organize test results



EUT-specific test plans assist in maintaining an overview

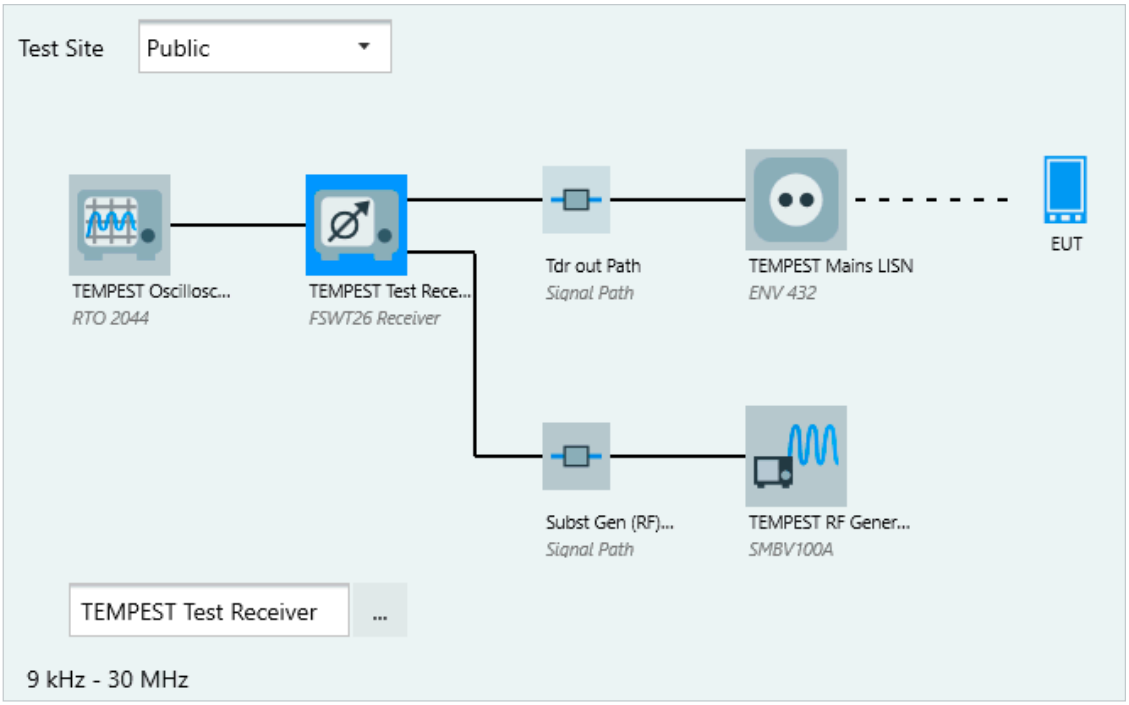


TEST SETUPS

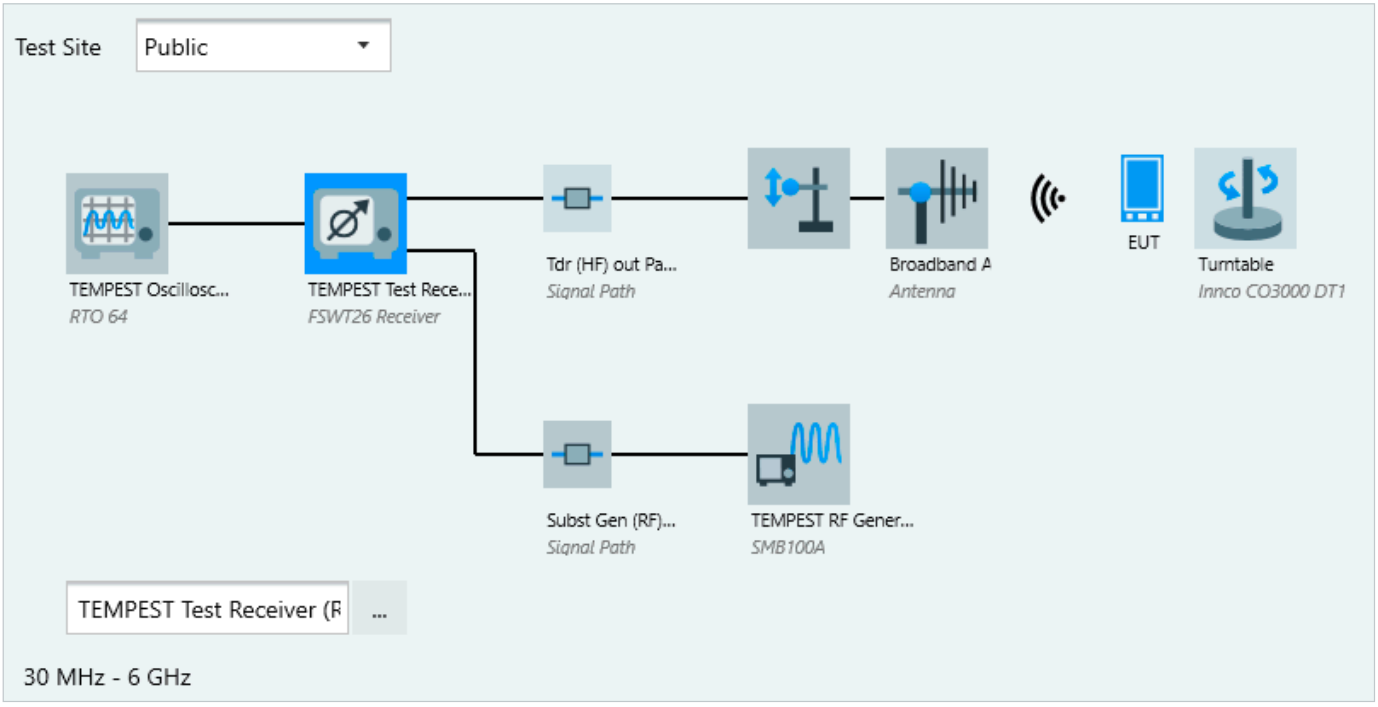
Different test setups define the arrangement of accessories and testing instruments for the various types of testing. The different test definitions are based on the setups.

R&S®ELEMI-T supports measurements using the R&S®FSWT26 test receiver and the R&S®RTOx and R&S®RTP oscilloscopes.

Test setup for a conducted test



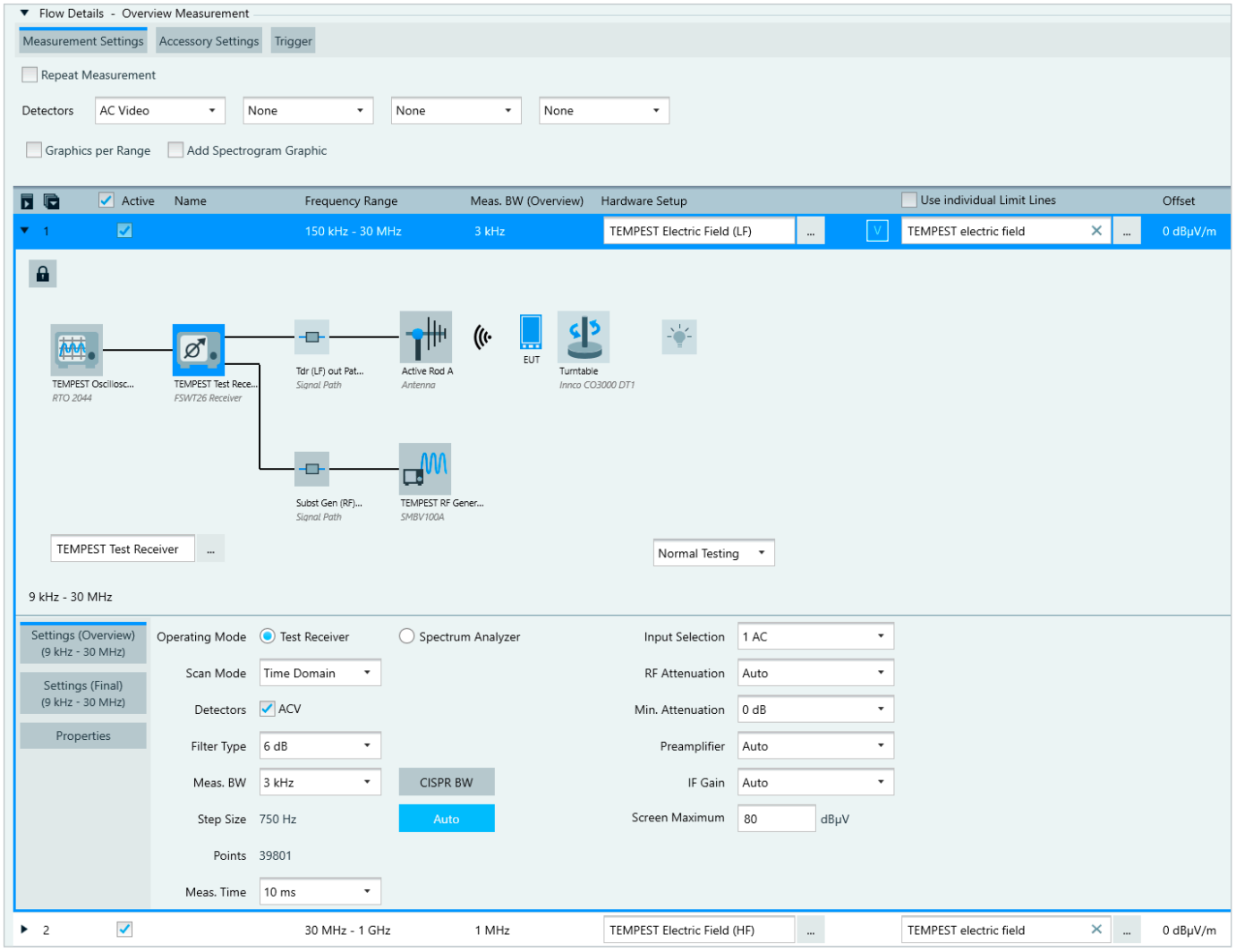
Test setup for a radiated test with optional antenna positioner

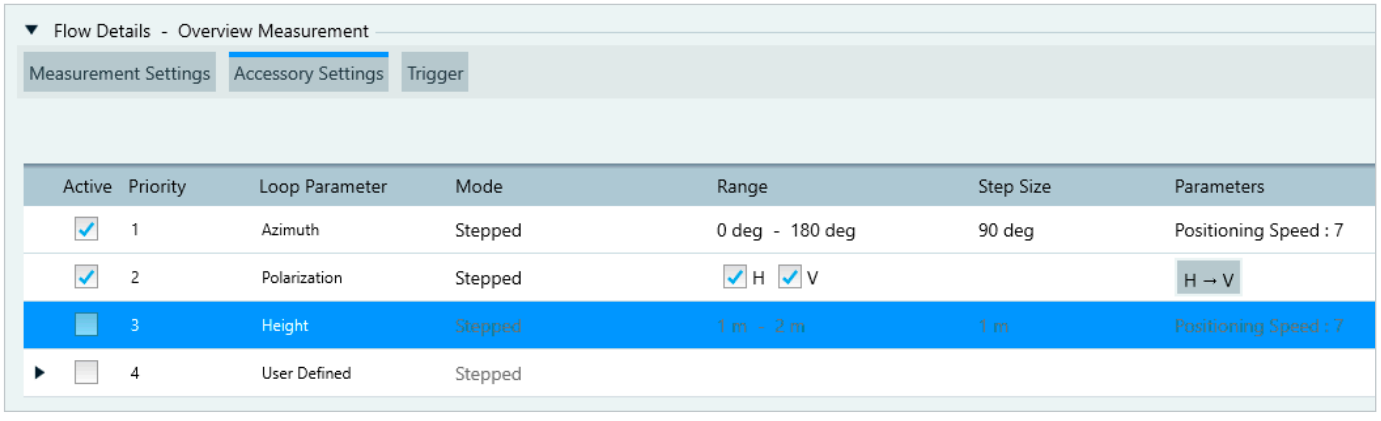


TEST TEMPLATES

Test templates contain detailed measurement settings and test strategies.

Definition of instrument settings in a test template

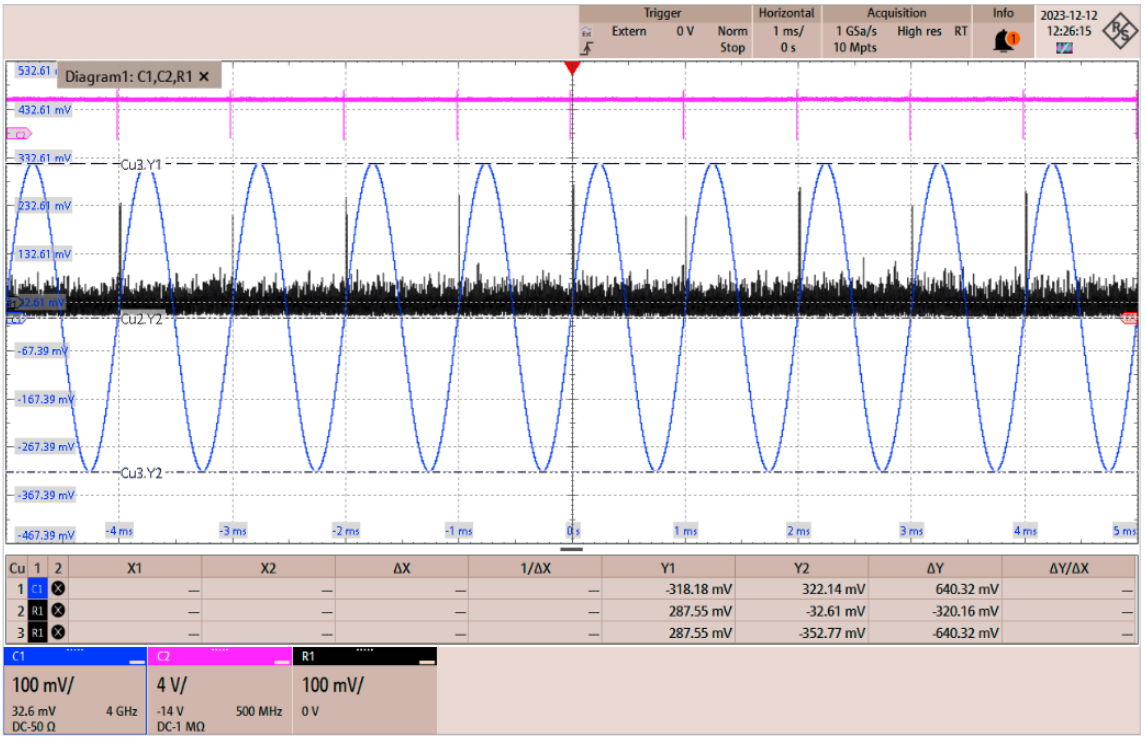




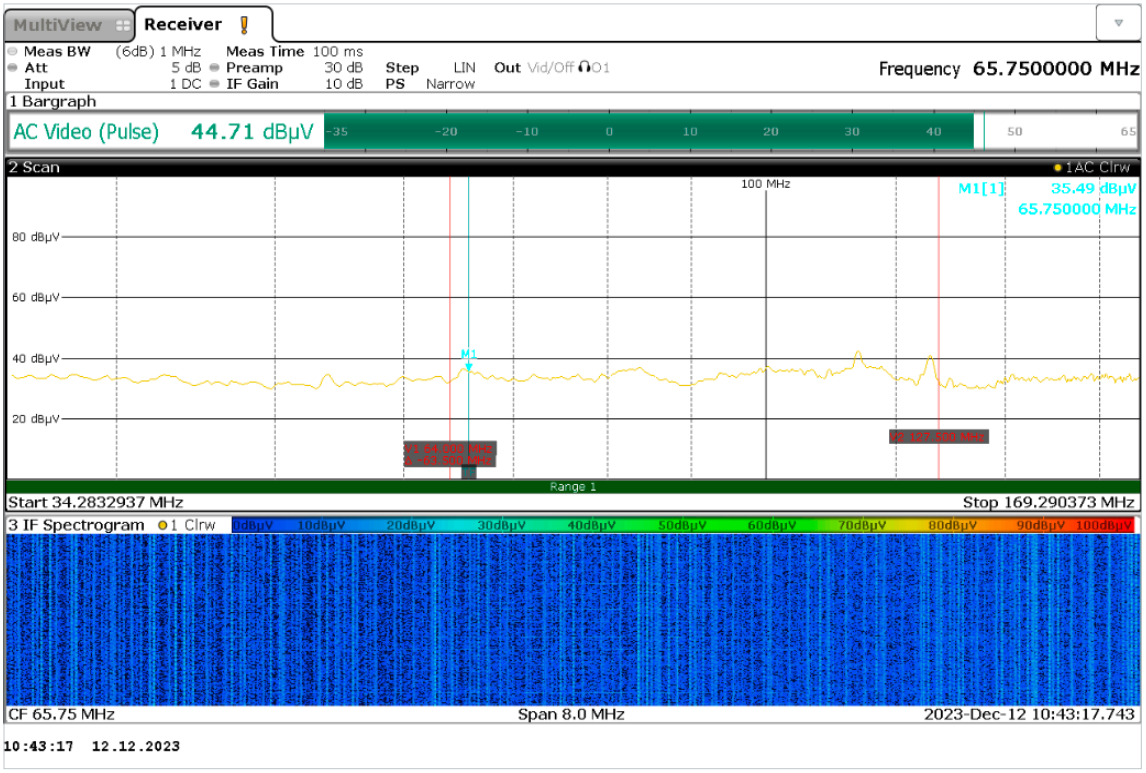
INTERACTIVE MEASUREMENTS

The oscilloscope and test receiver user interfaces are available from within the R&S®ELEMI-T software.

Oscilloscope user interface



Receiver user interface

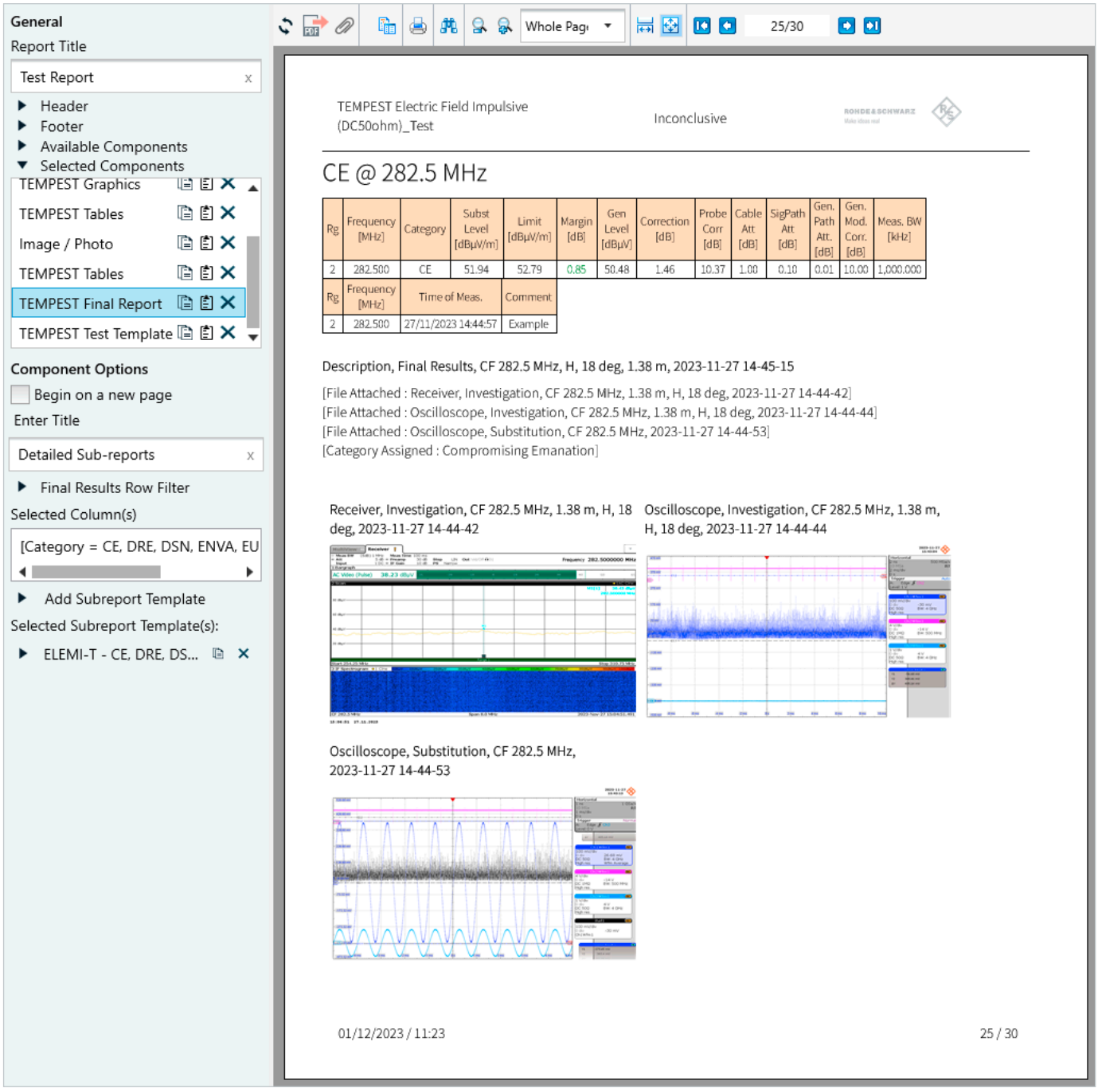


For interactive signal investigations, it is important to have direct access to the user interface of the receiver and oscilloscope. R&S®ELEMI-T enables direct access to these interfaces from within the software itself.

NO TEST WITHOUT A TEST REPORT

R&S®ELEMI-T creates comprehensive and structured test reports. All relevant data, from transducer factors to manually collected data, can be included in the report.

Detailed sub-report for one frequency with all relevant information



The report includes screenshots from the receiver and oscilloscope. The operator can add comments or photos if needed.

SPECIFICATIONS IN BRIEF

Specifications in brief	
Prerequisites	► R&S®EMCPC license dongle and system requirements (see R&S®ELEKTRA EMC test software specifications section Minimum system requirements (PD 5216.3695.22)) ► R&S®ELEMI-S
Software features	
Test setup	► TEMPEST specific hardware setups and test templates – transducer or probe based measurements – conducted measurements using a LISN – electric field strength measurements – magnetic field strength measurements ► single overview measurement can cover TEMPEST frequency range – multiple sub-ranges and hardware setups – switched signal paths for frequency dependent devices ► import feature for classified limit lines ► data reduction with peak detection, acceptance margin and critical band detection
Measurement sequence/test control	► fully automated overview with accessory movement ► flow into data reduction with critical point and critical band detection ► optional frequency list loading with critical band support ► flow into assisted interactive measurement – manually step through critical points and bands – automatic system setup at each frequency – manual control while investigating each frequency – assisted substitution measurement ► single-click, save-and-load receiver and oscilloscope setups ► attach supporting evidence to each final result record using – single-click screen shot capture for receiver and oscilloscope – storage browser – built-in text editor ► categorize each final result record using standard terminology
Data management	► integrated database or use shared database with up to five users ► user and role management ► data backup and restore ► import and export function for test templates, device configuration, limit lines and other tables
Measurement result display	► overview chart – limit line and acceptance margin display – critical point and critical band markers – final result markers ► critical point table with critical band support ► final result table – emanation category – total and elemental correction factors – result specific attachments
Reporting	► template based report generation ► generate report by test or by EUT ► detailed sub-report by final result
Supported devices	
Receivers	R&S®FSWT26
Oscilloscopes	R&S®RTO2000, R&S®RTO6, R&S®RTP
Other	see R&S®ELEKTRA EMC test software specifications (PD 5216.3695.22)

ORDERING INFORMATION

Designation	Type	Order No.
Software		
Compromising emanations measurement software	R&S®ELEMI-T	1345.2118.02
Software bundles		
EMI advanced system test software package	R&S®ELEMI-EAS	5601.0382.02
EMC options		
EMC extension for report generation	R&S®ELEMC-REP	5601.0460.02
EMC test list automation	R&S®ELEMC-TLA	5601.0560.02
Hardware		
License dongle	R&S®EMCPC	5601.0018.02
Software maintenance		
One year software maintenance is optionally available for each software item. Contact your local Rohde&Schwarz sales office.		

R&S®EMCPC and R&S®ELEMI-EAS are prerequisites for R&S®ELEMI-T.
R&S®ELEMC-REP and R&S®ELEMC-TLA are useful extensions.

For further information, see R&S®ELEKTRA EMC test software product brochure (PD 5216.3695.12).

Your local Rohde&Schwarz expert will help find the best solution for you.
Contact your local Rohde&Schwarz sales office for more information, visit www.sales.rohde-schwarz.com

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- Local and personalized
- Customized and flexible
- Uncompromising quality
- Long-term dependability

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- Energy efficiency and low emissions
- Longevity and optimized total cost of ownership

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ISO 9001

Certified Environmental Management
ISO 14001

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PD 3685.0234.12 | Version 01.00 | January 2024 (fi)
R&S®ELEMI-T Compromising Emanations Measurement Software
Data without tolerance limits is not binding | Subject to change

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