



Product Demo

ESW EMC Receiver

April 27th, 2016

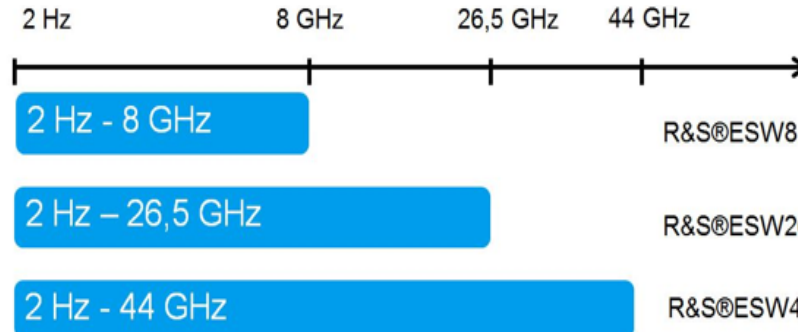


Bill Wangard

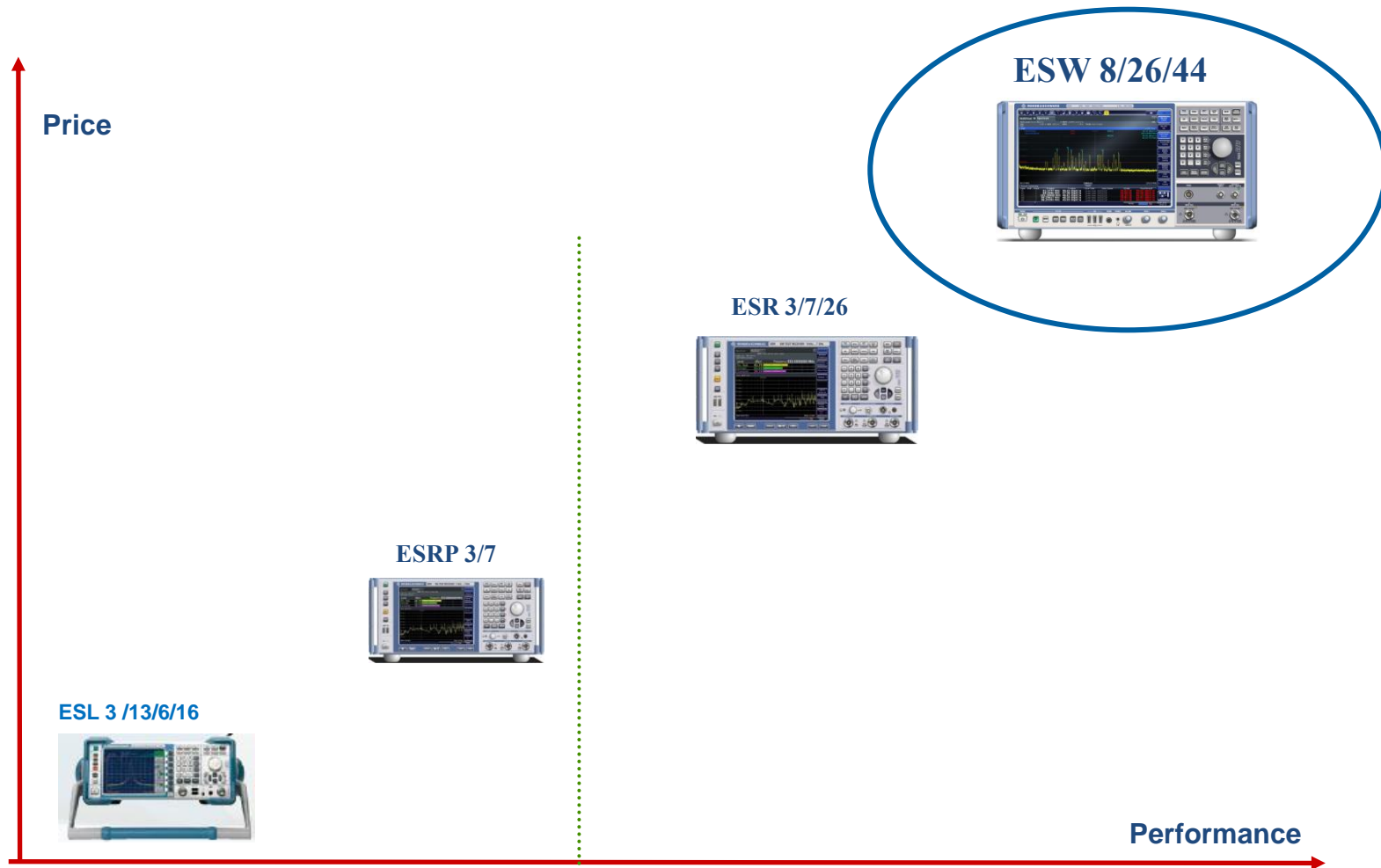
Bill Wangard is the EMI Receiver and Radio monitoring Product Manager at Rohde & Schwarz. He has 20+ years of RF and Receiver experience at Motorola and Rohde & Schwarz. Bill authored numerous patents at Motorola.

EMI Test Receiver

Compliance testing according to CISPR- and Mil-Standards



EMI Receiver Portfolio



Features of ESW

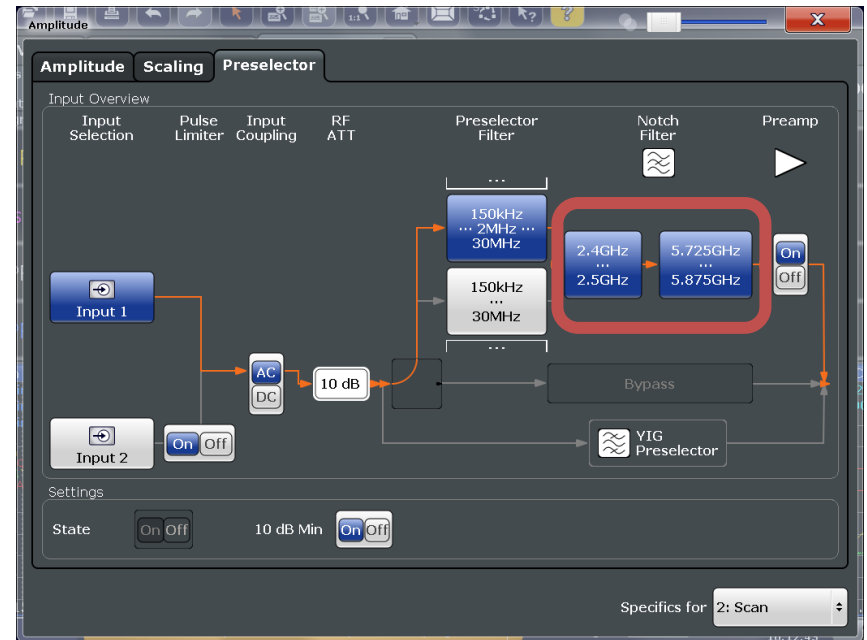


- The ESW becomes unique through the combination of the following features in a single instrument:
 - EMI compliance measurements faster and more reliable than ever
 - Highest dynamic range and level accuracy in an EMI Test Receiver
 - Configurable pre-selection with pre-amplifiers and notch filters
 - With FFT-based high speed time domain scan standard-built-in
- Real-time analysis
 - 80MHz BW for real-time spectrum analysis and spectrogram view for diagnostics and debugging measures
- Multi-View all measurements at a glance
 - With multiview windows on one screen and advanced parameter coupling

Features of ESW

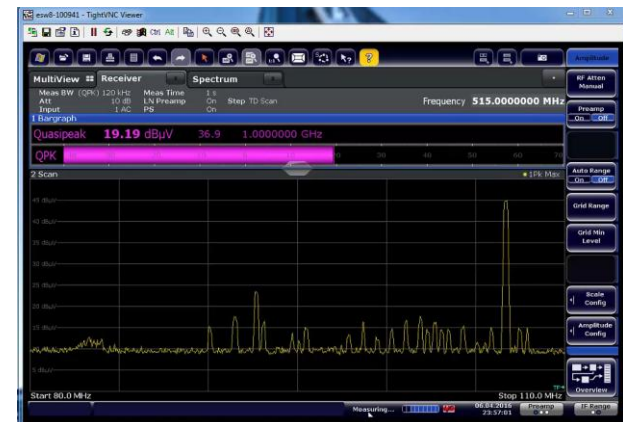
RF Performance

- Configurable Pre-selection
- High 1-dB-compression point
- High sensitivity with a built-in preamp of 20dB gain
- Or with an 30-dB-preamp (LNA - option) in front of preselection
- Built-in pre-selection filters optimized to the requirements of a speedy Time-Domain-Scan
- Special filters such as 150 kHz HP, 2 MHz HP and Notchfilters for ISM bands suppression



Notch 2.400 GHz ... 2.500 GHz

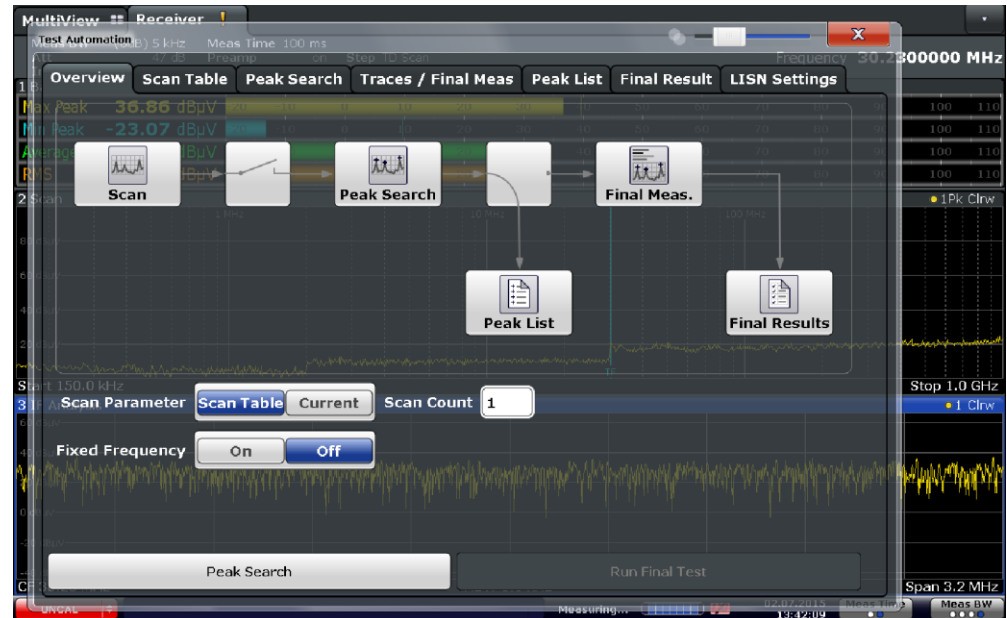
Notch 5.725 GHz ... 5.875 GHz



Features of ESW

Automatic Test Automation Sequencing

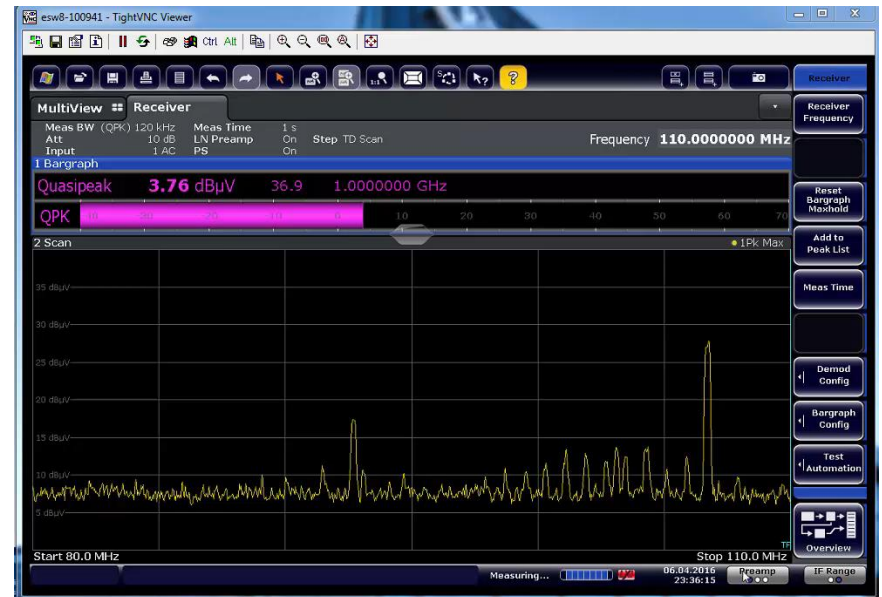
- I **Overview Block Diagram**
- I **Scan table**
 - I Customizable Frequency Ranges
 - I Dwell Time
 - I RBWs
- I **Peak Search**
 - I Record to Peak List
 - I Choose Limit Line
- I **Final Measurement**
 - I Interactive Mode
- I **Final Results**



Creating Limit Lines



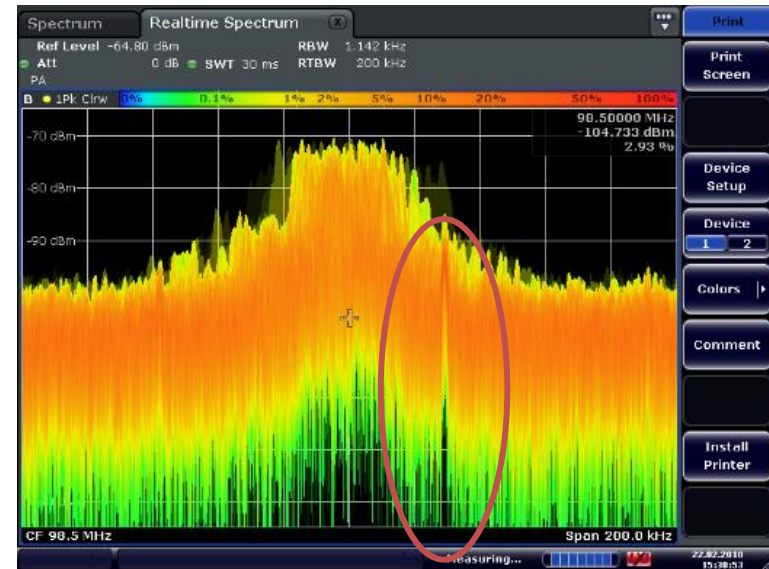
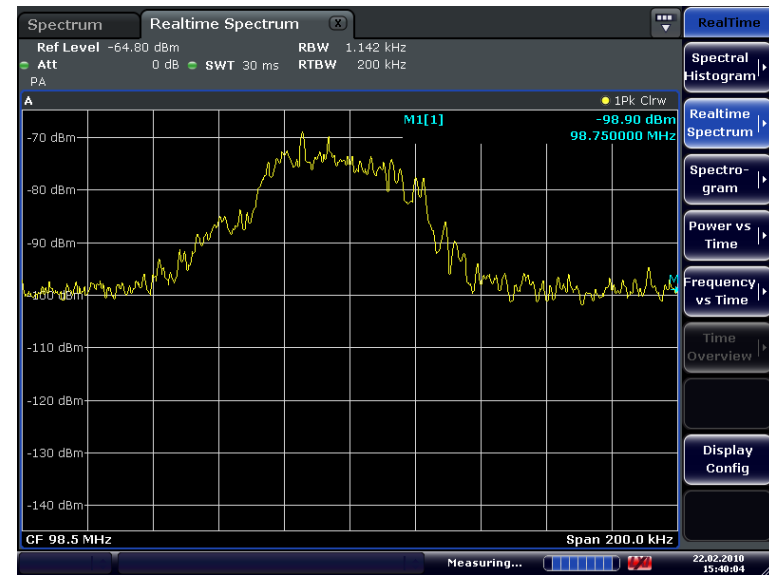
Freq (MHz)	Limit (dBuV)
80	13.0
85	13.0
95	17.0
100	17.0
110	35.0



Features of ESW

Optional Real-time Analysis

- **Optional 80MHz Real-Time Analysis**
 - Seamlessly monitor disturbance spectra and quickly evaluate interference suppression measures
- **Real-time diagnostic and debugging tools**
 - Persistence Display
 - Spectrogram Display
 - Frequency Mask Trigger
 - IF analysis
 - Detect complex signals (covered/hidden signals)





Features of ESW

Enhanced Parameter Coupling

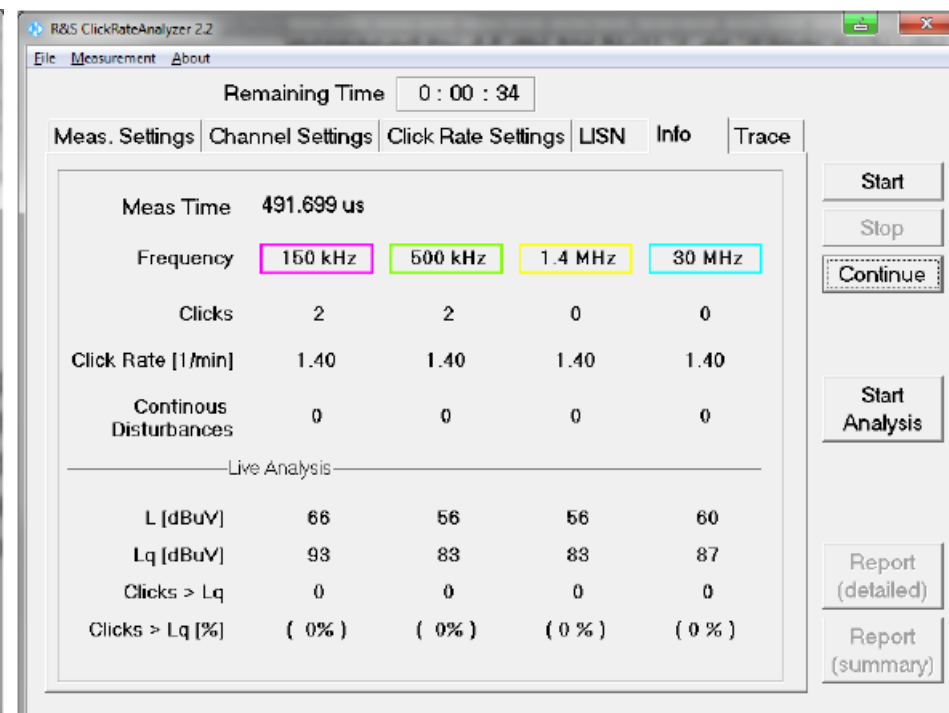
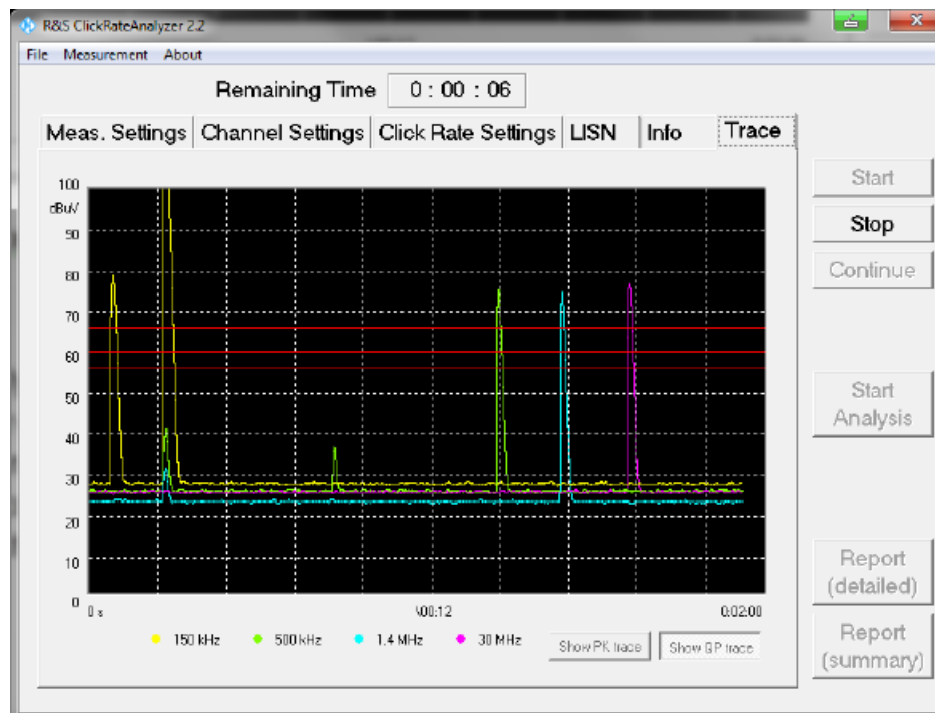


Features of ESW

4 channel click-rate analysis



4-channel-click-rate analysis installed directly on the instrument



Features of ESW

Automatic Test Reporting

The image displays a collage of screenshots from the ESW (Electronic System Workbench) software, illustrating its automatic test reporting capabilities.

Test Report Settings Dialog: This dialog allows users to configure the report. The 'Configuration' tab is active, showing fields for Title, Heading, Meas Type, Equipment under Test, Manufacturer, OP Condition, Operator, Date, Test Spec, and Logo. The 'Logo' field is set to 'R&S_logo.bmp'.

Table of Contents: This page lists the sections of the report, including:

- 1. Receiver
- 1.1.1. Bargraph Settings
- 1.1.2. Bargraph
- 1.1.3. Scan
- 1.1.4. Scan Spectrogram
- 1.1.5. Sweep
- 1.1.6. Sweep Spectrogram
- 1.1.7. Scan Table

Report Pages: The report pages include:

- 1.1 Receiver:** Contains sub-sections for Bargraph Settings, Bargraph, Scan, Scan Spectrogram, Sweep, Sweep Spectrogram, and Scan Table.
- 1.1.1 Bargraph Settings:** Shows instrument settings like ESW-8, Version 1.00, 11 Bins, Date 07.01.15, Mode Receiver, and various filters.
- 1.1.2 Bargraph:** Displays a bargraph plot with a peak at 19.46 dB.
- 1.1.3 Scan:** Shows a scan plot with a peak at 19.46 dB.
- 1.1.4 Scan Spectrogram:** Shows a spectrogram plot.
- 1.1.5 Sweep:** Shows a sweep plot.
- 1.1.6 Sweep Spectrogram:** Shows a spectrogram plot.
- 1.1.7 Scan Table:** Contains a table with columns for Range 1, Range 2, Start, Stop, Step, RBW, Meas Time, Auto Ranging, RF Att, and Auto Preamp.

The bottom of the collage shows the 'Ready' status bar with the date 27.05.2014 and time 09:24:04.