

### Invitation OSCILLOSCOPE DAYS 2023

Rohde&Schwarz is pleased to announce the return of our educational virtual event – Oscilloscope Days 2023.

Taking place on April 18 to 19, 2023, the agenda includes educational oscilloscope fundamentals sessions and live interaction with technical experts from Rohde&Schwarz and our event partners – Würth Elektronik and PE Systems.

Take this opportunity to improve your electronics engineering knowledge and learn about the test features of modern digital oscilloscopes.

In 2023, we will live stream the event in five different languages: English, German, French, Spanish and Brazilian Portuguese streams.

Oscilloscope Days provides a valuable opportunity for electronics engineers to learn the essentials of oscilloscopes by joining virtual hands-on sessions that relate to real world design challenges.

#### Discover and learn more about:

- Oscilloscope and Probing fundamentals: What to know when selecting the probe and oscilloscope for your application?
- ▶ Best practices on power electronics filter design and verification?
- How does Power Integrity affect Signal Integrity and which tools can be used for debugging? Which benefits and limitations to keep in mind when using Deembedding?
- Application based testing for power electronics and EMC debugging on Flyback converters

We hope to see you there, Your Rohde&Schwarz Team and Partners







Live stream dates: April 18 to 19, 2023

Learn more and sign up for the event here





# Agenda OSCILLOSCOPE DAYS 2023

MEASUREMENT SOLUTIONS FOR DAY-TO-DAY TESTING CHALLENGES

#### 18 April, 2023

Time CEST	Program
10:00	Welcome and Keynote speech by Dr. Ernst Flemming, Rohde & Schwarz
10:15	<ul> <li>Oscilloscope and Probing fundamentals: What to know when selecting the probe and oscilloscope for your application?</li> <li>Speaker: Rohde &amp; Schwarz</li> <li>Learn more about: <ul> <li>Construction blocks of an oscilloscope</li> <li>How to estimate needed bandwidth for my application?</li> <li>Are more bits always better?</li> <li>What to know about signal improvement methods like HiRes, averaging, HD Mode?</li> <li>Why use an oscilloscope for EMI fault hunting?</li> <li>Construction blocks of passive, active and high voltage probes</li> <li>How to choose the right probe?</li> <li>To GND or not to GND a differential probe?</li> </ul> </li> </ul>
11:30	Break
14:00	<ul> <li>Best practices on power electronics filter design and verification</li> <li>Speakers: Rohde &amp; Schwarz and Würth Elektronik</li> <li>Learn more about: <ul> <li>What are typical measurement scenarios?</li> <li>What to keep in mind for selection of probing points?</li> <li>How to measure the current in power applications?</li> <li>Filter, Simulation and Parasitics</li> <li>Filter and how they are affected by parasitics like e.g. Vias, PCB cross-section, GND Layers,</li> <li>Simulation with LTSpice and what to keep in mind</li> </ul> </li> </ul>
15:30	Wrap-up

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MEASUREMENT SOLUTIONS FOR DAY-TO-DAY TESTING CHALLENGES

### 19 April, 2023

Time CEST	Program
10:00	Welcome and Introduction
10:15	How does Power Integrity affect Signal Integrity and which tools can be used for debugging? Which benefits and limitations to keep in mind when using Deembedding? Speaker: Rohde & Schwarz
	<ul> <li>Learn more about:</li> <li>Introduction to typical analysis and hurdles in Signal and Power Integrity</li> <li>How are Signal and Power Integrity linked together?</li> <li>How to hunt down Power Integrity issues in Jitter separation?</li> <li>Deembedding – Benefits and Limitations</li> <li>What is deembedding?</li> <li>How to get parameters of my fixture to deembed?</li> <li>Introduction ISD Deembedding</li> </ul>
11:30	Break
14:00	<ul> <li>Application based testing for power electronics and EMC debugging on Flyback converters Speakers: PE-Systems and Würth Elektronik</li> <li>Learn more about:         <ul> <li>Why is qualification of power electronics relevant?</li> <li>What is the difference between characterization of a power semicon ductor and the application based testing?</li> </ul> </li> </ul>
	<ul> <li>What benefits could an up to date power electronics test system deliver?</li> <li>Which parameters and environmental conditions shall be tested?</li> <li>How to select the right counter measures?</li> <li>How to validate the effectiveness of counter measures?</li> <li>Practical examples</li> </ul>
15:30	Wrap-up

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