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## ROHDE & SCHWARZ AUTOMOTIVE TESTING TECHNOLOGY SEMINAR 20 APRILE 2022

Museo Ferrari di Maranello – Via Dino Ferrari 43 - 41053 Maranello (MO)

[Register free](#)

# AGENDA

Time	Program	
09:00 – 09:30	Registration	
09:30 – 09:45	Introduction & Welcome by David Gonzalo, Regional Sales Director Automotive at Rohde & Schwarz Spain and Sergio Bottero, Automotive Sales Engineer at Rohde & Schwarz Italia	
	Conference track: EMI, Automotive RADAR & High Power EV Test	Conference track: Connectivity & Infotainment
09:45 – 10:45	<b>CISPR News - Part I</b> The impact of electro mobility on emission measurements against CISPR 12, CISPR 25 and CISPR 36 Speaker: Jens Medler, Standardization & Application Support for EMC Testing Equipment at Rohde & Schwarz	<b>Infotainment Testing – worldwide broadcast standards simulated in the lab (Lingua Italiana)</b> Speaker: Lino Conti, Broadcast and Media Sales Manager at Rohde & Schwarz Italia
10:45 – 11:15	<i>Coffee Break &amp; hands on demonstrations</i>	
11:15 – 12:15	<b>CISPR News - Part II</b> The impact of electro mobility on emission measurements against CISPR 12, CISPR 25, CISPR 36 Speaker: Jens Medler, Standardization & Application Support for EMC Testing Equipment at Rohde & Schwarz	<b>Automotive Ethernet and next-Generation In-Vehicle Network Architecture (Lingua Italiana)</b> Speaker: Tommaso Tessitore, Oscilloscopes Sales Specialist at Rohde & Schwarz
12:15 – 12:30	Ritrovo Gruppi per visita guidata	
12:30 – 13:30	Visita Guidata Museo Ferrari Gruppo	
13:30 – 15:00	<i>Light Lunch &amp; hands on demonstrations</i>	
15:30 – 16:30	<b>Game Changing Solutions for Automotive Radar Testing</b> Speaker: Andreas Von Lösecke, Microwave Imaging Product Manager at Rohde & Schwarz	<b>Advances in C-V2X and Automotive Connectivity</b> Speaker: Holger Rosier, 5G Automotive Technology Manager at Rohde & Schwarz
16:30 – 17:15	<b>Programmable Bidirectional Power Supplies for Testing HV- and LV Automotive Equipment</b> Speaker: Wolfgang Horrig, Sales Manager at Elektro-Automatik	
17:15 – 17:30	<i>Q&amp;A Farewell &amp; Wrap up</i>	

# CONFERENCE – ABSTRACTS

## Conference track: EMI, Automotive RADAR & High Power EV Test

### CISPR News - The impact of electro mobility on emission measurements against CISPR 12, CISPR 25 and CISPR 36

Speaker: Jens Medler, Standardization & Application Support for EMC Testing Equipment at Rohde & Schwarz

Abstract: With the recent changes in CISPR 12, CISPR 25 and CISPR 36 new requirements were implemented to address the impact of electric and electric hybrid vehicles on the electromagnetic environment. At the same time, there is a high demand to reduce test time and to comprehensively record the disturbance characteristics of the device under test. Usage of FFT-based measuring receivers is the key to address these topics. The presentation will examine the applicability of FFT-based receivers for emission measurements, explore what is new in the current standards and what to expect in the next revisions of the standards then will conclude with practical use cases.

### Game Changing Solutions for Automotive Radar Testing

Speaker: Andreas Von Lösecke, Microwave Imaging Product Manager at Rohde & Schwarz

Abstract: For Advanced Driver Assistance Systems (ADAS) & Autonomous Driving (AD) to function it is critical that radar sensors correctly recognize static and moving objects. Accurately emulating a real road environment by electronically generating echos representative of objects such as other vehicles, road users and pedestrians is an important part of the development and production testing of radar chipsets, sensors and systems. The new Radar Test System from R&S is the most accurate, scalable & advanced solution for automotive radar object simulation on the market and represents a real game-changer in automotive radar testing. Join this presentation to discover how to electronically emulate complex moving object scenarios thereby reducing the need for expensive and time-consuming test kilometers on the proving ground and accelerating the validation process.

### Programmable Bidirectional Power Supplies for Testing HV- and LV Automotive Equipment

Speaker: Wolfgang Horigg, Sales Manager at Elektro-Automatik (EA)

Abstract: High- and low-voltage equipment such as on-board chargers, DC-DC converters, traction inverters, battery-management systems as installed in electrical vehicles (HEV, PHEV, BEV) require intensive validation-, performance- and safety testing prior to their integration. EA-Elektro-Automatik's range of programmable bidirectional power supplies are suitable to efficiently test all automotive devices for voltages as of 3,2V through 2000V and currents of up to several thousand Amperes. In load-mode, these are regenerative, so the energy taken from the equipment under test is converted into AC and feed back into the mains supply, reducing the total cost of ownership

Conference track: Connectivity & Infotainment

**Infotainment Testing – worldwide broadcast standards simulated in the lab (Lingua Italiana)**

Speaker: Lino Conti, Broadcast and Media Sales Manager at Rohde & Schwarz Italia

Abstract: Le tecnologie e gli standard per la diffusione delle trasmissioni radio broadcast & media disponibili sul mercato oggi e la loro diffusione per aree geografiche e uso per tipologie di mercati automotive, sono molto diversificate.

Questo comporta che per il testing per la ricezione di questi multi standard sulle piattaforme di infotainment a bordo veicolo, sia necessario disporre di sorgenti che coprano questa esigenza. Rohde & Schwarz, leader nel mondo T&M ed anche nel mondo broadcast, propone soluzioni atte a semplificare il testing dei ricevitori.

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**Automotive Ethernet and Next-Generation In-Vehicle Network Architecture (Lingua italiana)**

Speaker: Tommaso Tessitore, Oscilloscope Expert at Rohde & Schwarz

Abstract: Applicazioni come la Guida Autonoma (ADAS) e la connettività 4G/5G, V2x, etc. richiedono sistemi di trasmissione dati sempre più veloci, affidabili e scalabili in ambito Automotive. Reti come il Multi-gigabit Ethernet 2.5/5/10GBASE-T1 diventeranno de-facto lo standard per le comunicazioni a bordo veicolo (In-Vehicle network). Durante la presentazione verranno esplorate queste tecnologie e verrà spiegato come si evolveranno nei prossimi 10 anni passando da un'architettura "Domain Controller" and una "Zonal Controller". Vedremo inoltre quali sono le sfide che sistemi così veloci pongono in ambito di validazione e test e come affrontarle sfruttando le potenzialità degli strumenti attualmente disponibili sul mercato.

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**Advances in C-V2X and Automotive Connectivity**

Speaker: Holger Rosier, 5G Automotive Technology Manager at Rohde & Schwarz

Abstract: Cellular-V2X promises to make driving safer, more efficient and it is critical for the implementation of Advanced Driver Assistance Systems (ADAS). However, it also brings new challenges to maintain reliable connectivity between vehicles, infrastructure, pedestrians and other road users and ensure the correct operation of ADAS features. In this presentation, you can learn about the latest developments in LTE and 5G C-V2X standards according to organizations such as 3GPP, ETSI & C-SAE and obtain an overview of the very dynamic regional and global market. In addition, get insights into C-V2X network architecture as well as messaging, RF, protocol and TCU application testing. Practical demonstrations will be conducted with a radio-communications tester.