

Search

5G | 5G TESTING | 6G | CARRIERS | IOT | NETWORK INFRASTRUCTURE ~ | OPEN RAN | PRIVATE 5G | TELCO CLOUD | FUNDAMENTALS ~

SPONSORED CHANNELS | Keysight 5G & 6G Testing | Qualcomm 5G Insights | Rohde & Schwarz 6G Technology & Testing | RCR Live: Telco Reinvention 2023



Image: 123RF

Test and Measurement: Tektronix touts a 'breakthrough' in PCIe testing

By **Kelly Hill** October 28, 2022

Test and Measurement

Facebook

Linkedin

Tek launches its new PCIe Margin Tester

Tektronix is claiming that it has a new product category that provides disruptive capabilities and cost for PCI Express testing, saying that its newly unveiled Margin Tester takes a "completely new approach to PCIe validation testing."

In a demonstration video, Tek applications engineer Evan Smith explained that the tester is aimed at PCI3 Gen 3 and Gen 4 testing and determines the link health of designs faster, more easily and more effectively so that problems can be uncovered earlier in development. The new instrument isn't an oscilloscope, a bit error rate tester (BERT) or a protocol analyzer, he said, but has elements of each one and could be considered a new PCIe testing tool that complements other instruments and addresses associated pain points with PCIe testing.

and-play set-up and is easy to use, capable of delivering "in minutes" testing that typically would take hours or days to set up and conduct. Chris Witt, VP and GM of portfolio

Tek says that the instrument has a plug-

solutions at Tektronix, said that the TMT4 Margin Tester "empowers engineers to realize technological advances with ever greater ease and speed."



Image: Tektronix

Tektronix's new TMT4 Margin Tester for PCI Express testing.

In other test news:

-Keysight Technologies, Synopsys and Ansys are focusing on support for millimeterwave development of 5G/6G system-on-chip designs. The three companies announced this week that availability of their newmmWave RF design flow for TSMC's 16nm FinFET Compact (16FFC) technology for high-speed SoC design.

"Today's high-speed designs need to address an increasing range of multi-physics effects to

optimize power, area, reliability and performance," said John Lee, vice president and general manager of the electronics, semiconductor, and optics business unit at Ansys, adding, "The collaborative mmWave design reference flow using TSMC's 16FFC technology is a successful example that streamlines access to advanced silicon design and manufacturing for 5G and wireless products by bringing together Synopsys' Custom Design Family with Keysight's premier RF design capabilities and Ansys' multiphysics signoff solutions for power integrity and electromagnetic analysis."

mmWave content in HPC, smartphone, automotive, and IoT applications," said Dan Kochpatcharin, head of the design infrastructure management division at TSMC. "Such complex designs require extensive ecosystem collaboration to help designers achieve silicon success with well-established solutions. The mmWave design reference flow that Synopsys, Ansys and Keysight have developed for TSMC's 16FFC process benefits from its superior performance and power consumption advantage for a tightly integrated solution that enhances productivity and quality-of-results for 5G/6G SoCs."

"Semiconductor industry megatrends for wireless communication are increasing RF and

will use R&S' CMX500 5G test solution to analyze and verify voice and audio services in 5G devices. Additionally, the test company is already working on partnerships and supporting research with an eye toward future 6G systems: It reported that it worked with China's **Tsinghua University** and Chinese firm Actenna Technology to test reconfigurable intelligent surfaces (RIS), which it said is a "major area of interest in 6G research".

"The technical trial mainly evaluated the deployment effects and performance of sub-6 GHz

-Rohde & Schwarz said this week that voice and audio analysis expert HEAD acoustics

RIS and mmWave RIS in different indoor and outdoor scenarios," Rohde & Schwarz explained in a release, saying that the tests "modeled deployment conditions with and without RIS, different incidence and reflection angles, different deployment distances, etc. Recorded performance index parameters included RSRP, throughput and others." The trial included both indoor and outdoor tests and included both a 860mm x 860mm sub-6 GHz RIS 20×20 element array, and a 180mm x 180mm mmWave RIS arraywith 32×32 elements. Various R&S instruments were used in the tests, including Rohde's SMW200A vector signal generator and its TSMx drive test scanner, plus its QualiPoc software and drive test terminals and an R&S FSW signal and spectrum analyzer, among others.

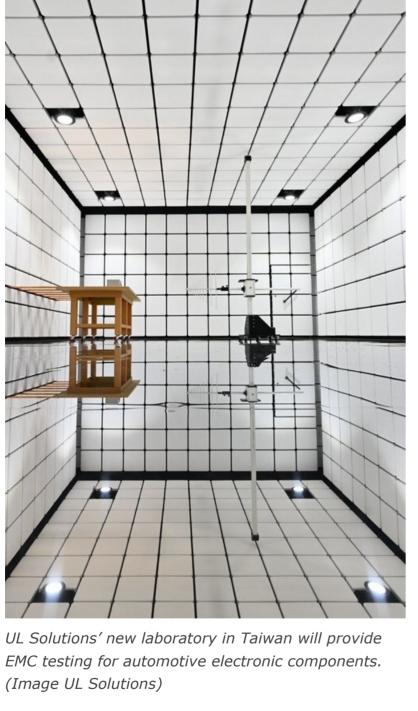
continued RIS technology development."

R&S said that the trial "[yielded] hard data that makes a strong argument in favor of

-Meanwhile, in Taiwan, **UL Solutions** has opened a new state-of-the-art automotive

-Enterprise networking company **OneLayer** is opening a 5G private network security lab.

electromagnetic compatibility (EMC) laboratory in Hsinchu, which includes testing capabilities for IoT and various RF applications. "With the opening of this laboratory, combined



Lab in Hsinchu and the E-mobility and Energy Laboratory in Taoyuan, we are confident that the testing capabilities offered by UL Solutions for automotive components will provide manufacturers in Taiwan with a complete range of testing services and a single source of service," said Jonathan TH Chen, VP and managing director of UL Solutions in Taiwan, said. "Our professional testing technologies and quality services meet the latest international standards and help enable manufacturers in Taiwan to enter the global automotive electronic component market safely and quickly."

with the UL Solutions Internet of Things (IoT)

Editorial Reports

Featured Videos



Some IoT use cases that changed the world - and some... December 20, 2022

Editorial Report: IoT in the supply



chain - How IoT grew... December 20, 2022



Manufacturing Forum – Key Findings December 16, 2022

Editorial Report: 5G

White Papers



Competitive Networks in... December 9, 2022 **SEGRON White Paper: How**

Active Testing can help CSPs to

Mobile Operators Can Monitor

thinkRF White Paper: How



segron

December 7, 2022 Rohde & Schwarz White Paper:

Journey of a Modern Mobile

avoid...

Device:...

December 7, 2022



NI White Paper: A Better Way to Take CV/IV Measurements October 27, 2022

Webinars



Qualcomm Webinar: How Wi-Fi 7 and Multi-Link Mesh will revolutionize home... December 19, 2022

Editorial Webinar: The state of

Capgemini Webinar: Industry 4.0

challenges and solutions for the

and Sustainable Engineering



Wi-Fi 6, 6E and 7 December 1, 2022



November 30, 2022 **Editorial Webinar: Connectivity**

supply chain and...



5G

November 29, 2022 **SEGRON Webinar: How** automated 5G QoE testing can

maximize customer retention

November 10, 2022

Enterprise IoT Insights

French regulator Arcep awards 25 private 5G licenses

IoT tracking in the supply chain

industry - the lowest start and the biggest finish?

India starts to identify bands for 5G private networks: Report

In-Building Technology

Honeywell invests in RapidSOS emergency response data platform

'Buildings have to be programmable,? says Cisco?s smart building lead

View to install smart windows at

Skanska office project in Seattle

Featured Content Learn how AI is shaping the



GTC September 15, 2022

ZenFi Networks

December 13, 2021

December 2, 2021

vehicle...

October 26, 2021

telecoms landscape at NVIDIA

BAI Communications to acquire



July 27, 2022 Wi-Fi 6E: 'A spectrum update, not

just a technology update'



Tupl CEO: 'The role of

automation is paramount'



AT&T brings private 5G network,

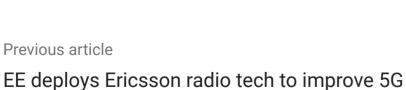
MEC to Ford's new electric



Previous article

energy efficiency

Facebook



in

Linkedin

T-Mo US misses Q3 revenue estimates, but sees

Next article

strong sub adds

ABOUT AUTHOR



hiatus and returned to RCR Wireless News to write about heterogeneous networks and

Kelly Hill

network infrastructure. Kelly is an Ohio native with a masters degree in journalism from the University of California, Berkeley, where she focused on science writing and multimedia. She has written for the San Francisco Chronicle, The Oregonian and The Canton Repository. Follow her on Twitter: @khillrcr

Kelly reports on network test and measurement, as well as the use of big data and

analytics. She first covered the wireless industry for RCR Wireless News in 2005,

focusing on carriers and mobile virtual network operators, then took a few years'

ABOUT US Since 1982, RCR Wireless News has been providing wireless and

mobile industry news, insights, and analysis to mobile and wireless industry professionals, decision makers, policy makers, analyst and investors.

573J8100K529891617896ACL663597L619703QK53025QQL8831630G00G0Q1C2F2BA8000001010000G0PG30H36W884da8cc42DW4487f2DW441b52DW4b0572DX12746bcead80f8G0G07B/";

FOLLOW US



Subscribe About RCR Wireless News Contact Us Advertise Editorial Calendar





adUrl = "https://amc.nui.media/pipeline/619702/0/cj/V1218E9C634J-

© 2021-2022 RCR Wireless News