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October 26 – 29, 2021 Virtual Event

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New Devices

One-stop Test Solution for IoT Devices

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Virtual • October 26-29, 2021

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New Devices

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Agenda

- IoT device feature & test challenge
- High-coverage & high-multi-site & low-cost Instruments

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- Low-cost load board solution
- Quick program development with IoT test IPs
- Summary



One-stop Test Solution for IoT Devices

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Global Number of Connected IoT Devices



According to IoT Analytics, the number of IoT connections in the world will grow at a double-digit rate every year in the next years, and by 2025, the number of Internet connections is expected to reach **30 billion**.

Market of IoT will rapidly grow up especially after COVID-19.



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IoT Device Feature & Test Challenge

High Integration → Wireless, MCU, ADC/DAC, PMU → ATE need high domain coverage



Low cost \rightarrow Low test cost \rightarrow low tester cost, high test efficiency & multi-site



Low power \rightarrow lower voltage & leakage, PMIC integrated \rightarrow high DC accuracy, PMIC test



Fast growing → Time-To-Market → Shorter period in test solution/board/program



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China

Key Characteristics :

- 16 AWG + 16 Digitizer per card
- High Resolution (*HR*) unit: 24bit, up to 1.5Mbps
 High Speed (*HS*) units: 16bit, up to 500Mbps
- License start from 1/4 card

Highest Flexibility & Density - Allow Higher Multi-Site

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Accelerate IoT Test Programming

	😵 Bluetooth		B-lot
TX Test	Power	Power	Power
	LO Leakage/Image	LO Leakage/Image	LO Leakage/Image
	ACPR	Spectrum Mask	ACRP
	20dB BW	OIP3	OIP3
	Modulation Char	EVM	EVM
	Carrier frequency offset and drift		
RX Test	Sensitivity /PER	Gain	Gain
	IQ Char	NF	NF
		IIP3	IIP3
		P1dB	EVM
		EVM	

Tests of IoT wireless standards



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Standard building block

to create test program

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Clock Signal AESETS

VOH (V) 1

VHIVE 2

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"Plug & Play" Test Program Development





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