Agilent Technologies Launches Industry's First Complete MIPI M-PHY Test Suite

Agilent Technologies announced a comprehensive MIPI M-PHY test solution for mobile computing customers. The Agilent solution suite helps design engineers turn on, debug and validate all layers of their M-PHY devices, including physical and protocol layers, at speeds up to 5.8 Gb/sec.

The Mobile Industry Processor Interface (MIPI) Alliance is finalizing the M-PHY specification to allow development of faster, more reliable high-speed interfaces for mobile devices. M-PHY technology supports a broad range of applications, including interfaces for monitors, cameras, audio and video equipment, memory, power management and communication between baseband and RFIC components.

The Agilent solution consists of oscilloscopes, protocol analyzers and exercisers, and bit error-rate testers (BERTs) using custom M-PHY stimulus software. Each instrument comes with custom M-PHY-ready software to support design teams through the entire product design process.

"Working closely with customers developing early M-PHY-based silicon allowed us to provide robust M-PHY test solutions even before the final specification became available," said Roland Scherzinger, Agilent's MIPI program manager. "In addition, we were happy to share our experience in testing high-speed serial technologies in the MIPI workgroups, ensuring robust M-PHY specifications in terms of signal integrity and testability."

The Infiniium 90000 X-Series oscilloscope [1] delivers industry-leading, real-time bandwidth of up to 32 GHz with the industry's only 30-GHz probing system. With the industry's lowest noise and lowest jitter measurement floor performance, the scope ensures superior accuracy and is ideal for MIPI M-PHY transmitter conformance testing for speeds up to Gear 3. Using 90000 X-Series oscilloscopes gives engineers increased confidence in their MIPI M-PHY product performance and increases design margins.

Accurate and automated MIPI M-PHY receiver testing is supported by Agilent's high-performance ParBERT 81250A [2] for multi-lane testing and J-BERT N4903B [3] for single-lane testing. Although the MIPI M-PHY receiver test specifications have not been finalized yet, engineers can use these bit error-ratio testers for accurate M-PHY receiver tolerance testing in a pattern generator or full BERT configuration in conjunction with N5181/2A, E4438C and 81150A signal generators.

The N5990A-165 MIPI M-PHY/ DigRF v4 receiver test automation software [4] saves significant R&D time by automatically calibrating stress conditions and by controlling all test equipment for automated receiver tolerance tests.

Agilent's MIPI M-PHY-based N5343A and N5344A DigRF v4 exercisers and analyzers offer new insights that range from individual bits to IQ-modulated RF signals. The N5343A allows engineers to work in the domain (digital or RF) and abstraction level (physical or protocol layer) of their choice to quickly characterize RF-ICs and rapidly solve cross-domain integration problems. This exerciser and analyzer solution is the first to support MIPI M-PHY protocols at all gears.

Additional information about Agilent's MIPI-based products is available atwww.agilent.com/find/MIPI [5].

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