

product line

SIA Family

SIA-3400

Signal Integrity Analysis Solution

Critical Signal Integrity Testing

With serial data rates easily exceeding the 1 Gb/s range, you will be introduced to significant signal integrity design and system challenges. Now you can perform optimized signal integrity testing on 3.5 Gb/s serial data and 3.5 GHz clock and PLL applications with the Gigamax SIA products - the only signal analysis devices designed specifically to measure in the time domain.

The Wavecrest SIA 3400 includes easy-to-use GigaView™ software; a comprehensive suite of diagnostic tools that provides graphical plots and characterization results generating extreme detail about the performance of your device; even those exhibiting complex jitter behaviors.

SIA 3400D

The SIA 3400D model is designed for serial data analysis on applications such as PCI Express™ Gen 1, SATA I, SATA II, and 2X Fibre Channel. Using the compliance toolsets designed for each industry standard specifications, you will go beyond the minimum compliance testing. For example, with the PCI Express toolset, perform reference clock compliance tests including 2nd order PLL transfer function peaking, rise edge and fall rates and duty cycle along with a complete set of serial data compliance analysis.

If devices fail or are marginal, dig deeper into the analysis by using the diagnostic tools to find out the root cause of the problem. Isolate jitter components into RJ and DJ to calculate Total Jitter. Testing can be done on multiple differential channels. This model also includes all the clock diagnostic capabilities of the 3400C model.

SIA 3400C

The SIA 3400C model provides a complete measurement toolset for characterizing the performance of clock, PLL or oscillator devices. Measure amplitude, jitter components, frequency, period, cycle-to-cycle, jitter spectrum, PLL bode plot, transfer function, damping factor, spread spectrum and more. A single button clock analysis tool provides quick and easy results to determine the overall performance of the clock signal.

Streamlined Transition from Lab to Production

The SIA 3400 is a powerful signal integrity analysis instrument designed for the lab and for the most demanding production test environment. Tests can be automated on the bench with National Instruments LabVIEW™ drivers. By using the same family of SIA solutions, easily migrate from lab, to characterization parametric testing, to high-speed, high-volume production testing, ensuring a streamlined transition process and faster time-to-market.



Benefits of SIA 3400

Analyze 3.5 Gb/s Serial Data Application and 3.5 GHz Clock and PLL Applications with Optimized Solution

Pinpoint Root Cause of Problems Even on those Exhibiting Complex Jitter Behaviors

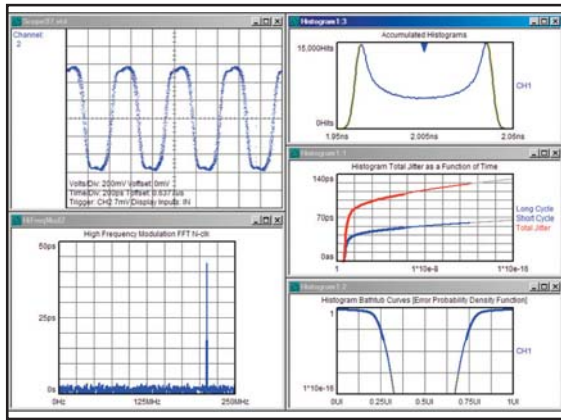
Test Beyond Minimum Compliance Requirements such as Characterization of Reference Clock Performance

Streamline Transition from Lab to Production by using Same Family of Instruments

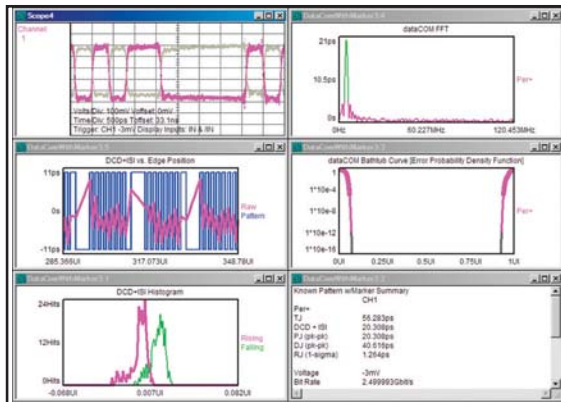
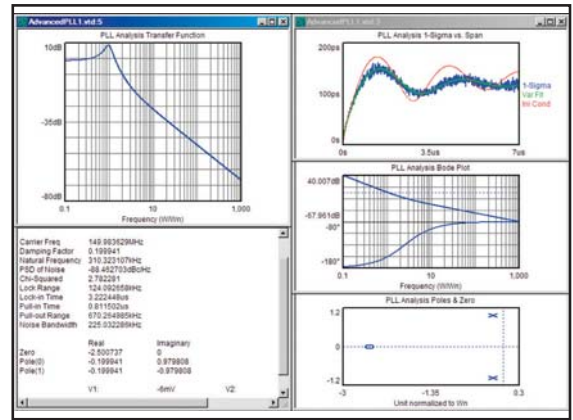
Upgrade with Minimum Reinvestment Costs

Detailed Diagnostics and Compliance Testing

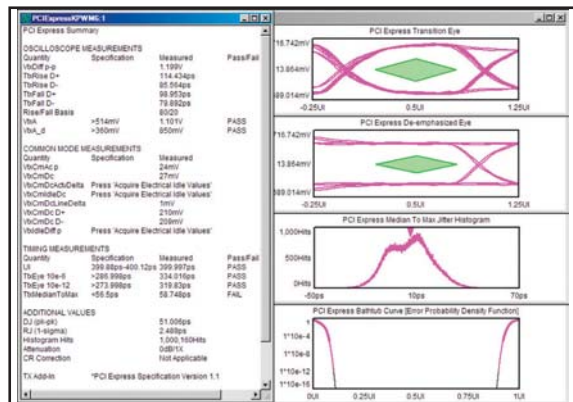
Analyze clock waveform, RJ, DJ, TJ, jitter spectrum, cycle-to-cycle, etc.



Measure 2nd order PLL transfer function, damping factor, bode plot, etc



Diagnose serial data RJ, DJ, TJ, jitter spectrum, etc.



Perform compliance and mask testing, pass/fail for PCI Express™, SATA II

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PCI Express is a trademark of PCI-SIG
LabVIEW is a trademark of National Instruments

Product Specifications

SIA Model	Application	Clock Signal Timing Measurement Frequency	Data Signal Timing Measurement Frequency	Oscilloscope Bandwidth	Number of Channels	Pattern Marker Option	Clock Recovery Option
3400D	PCI Express Gen I, SATA I, SATA II, 2x Fibre Channel	3.5 GHz	3.5 Gb/s	13 GHz	2,4 or 5	Up to 5 Gb/s	30 Mb/s to 3 Gb/s
3400C	Clocks, PLL, Oscillators	3.5 GHz	-	13 GHz	2,5 or 10	-	-



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