

# product line

SIA Family

## SIA-3600

### Signal Integrity Analysis Solution

#### Critical Signal Integrity Testing

Signal integrity is the most critical test for determining overall performance and interoperability of your high-speed devices. The Wavecrest SIA 3600 - the only signal analysis device designed specifically to measure in the time domain - enables you to perform optimized signal integrity testing on clock and PLL applications with speeds up to 4.5 GHz and serial data applications with speeds up to 4.5 Gb/s.

The Wavecrest SIA 3600 includes easy-to-use GigaView™ software; a comprehensive suite of diagnostic tools that provide graphical plots and characterization results generating extreme detail about the performance of the device; even those exhibiting complex jitter behaviors.

#### SIA 3600D

The SIA 3600D model enables you to go beyond minimum compliance testing of serial data applications. Toolsets created for PCI Express™ Gen I, 4x Fibre Channel, SATA I and SATA II, make device verification simple by displaying pass/fail criteria right on the screen. If devices fail or are marginal, dig deeper into the analysis by using the diagnostic tools to show jitter spectrum and root cause of jitter through the isolation of RJ and DJ components. Testing can be done on multiple differential channels. This model also includes all the clock analysis capabilities of the 3600C model.

#### SIA 3600C

The SIA 3600C model provides a complete measurement toolset for characterizing the performance of clock, PLL or oscillator devices. Measure skew, rise/fall times, FFT of power spectral density, PLL bode plot, transfer function peaking, 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 3600 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 3600

Analyze 4.5 Gb/s Serial Data Applications and 4.5 GHz Clock and PLL Applications with Optimized Solution

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

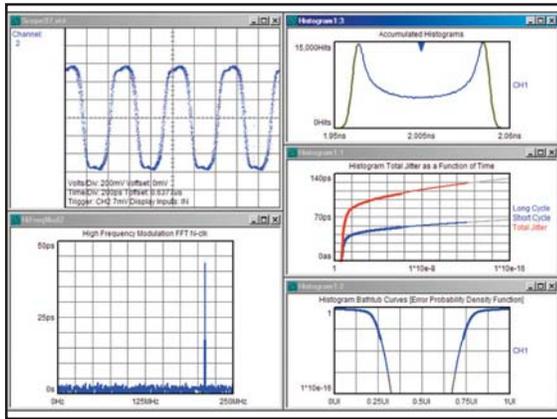
Test Beyond Minimum Compliance Requirements such as Characterization of Reference Clock Performance

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

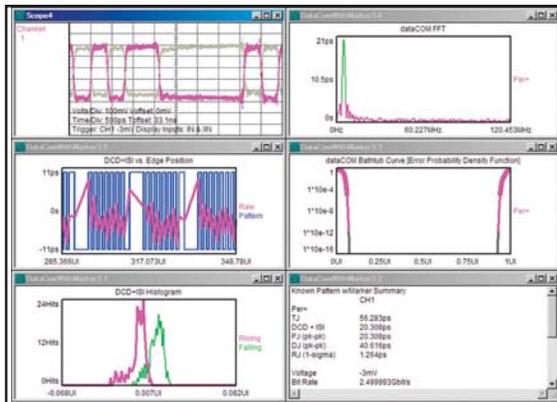
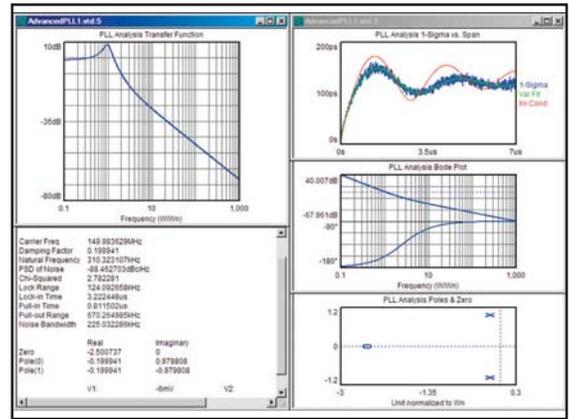
Upgrade with Minimum Reinvestment Costs

# Detailed Diagnostics and Compliance Testing

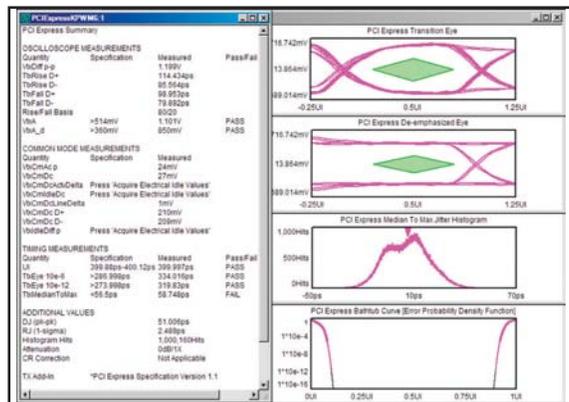
Analyze clock waveform, RJ, DJ, TJ, jitter spectrum, cycle-to-cycle, etc.



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
3600D	PCI Express Gen1, 4X Fibre Channel, SATA I, SATA II,	4.5 GHz	4.5 Gb/s	13 GHz	2,4 or 5	Up to 5 Gb/s	30 Mb/s to 3 Gb/s
3600C	Clocks, PLL, Oscillators	4.5 GHz	-	13 GHz	2,5 or 10	-	-



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