

Signal Integrity Toolbox™ Release Notes



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Signal Integrity Toolbox™ Release Notes

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Version: 1.0

New Features

Introducing Signal Integrity Toolbox: Design and analyze high speed serial and parallel links

Signal Integrity Toolbox™ provides a set of analysis tools and apps to configure, design, and analyze high speed serial and parallel links. You can generate experiments covering multiple parameters, extract design metrics, and visualize waveforms and results. You can also predict operating margins and link performance by analyzing transmitter, receiver, and channel interactions

Serial Link Designer App: Design and analyze high speed serial links

Use the **Serial Link Designer** app for end-to-end analysis of multi-gigabit serial links. Use IBIS-AMI models, PCB traces, vias, and connectors to analyze loss, reflections, crosstalk and more.

Parallel Link Designer App: Design and analyze high speed parallel links

Use the **Parallel Link Designer** app to determine setup/hold timing and voltage margins for high-speed parallel links. Use IBIS-AMI models, PCB traces, vias, and connectors to analyze parallel interfaces for compliance with timing and signal integrity constraints, reflections, crosstalk and more.

Signal Integrity Viewer App: View the signal integrity results of serial and parallel link designs

Use the **SI Viewer** app to view the results of the simulations done in **Serial Link Designer** or **Parallel Link Designer** app.

Design Space Exploration: Sweep parameters to quickly determine design trade-offs

Perform design of experiments by sweeping parameters and channels to explore the effect different combinations of design parameters on the link design. Utilize the Parallel Computing Toolbox™ to speed up the large-scale analysis.

Post-layout Verification: Import PCB schematics for post-layout signal integrity verification.

Validate the waveform quality, timing and crosstalk for single and multi-board configurations of PCB layouts. You need a license to RF PCB Toolbox™ to run the post-layout verifications in full capacity.

Signal Integrity Kits for Industry Standards: Analyze and implement standard interfaces from prepackaged kits

Check serial and parallel links for compliance with industry standards by using one of over 40 available compliance kits such as PCIe, DDR, USB, and Ethernet. For more information, see “Signal Integrity Kits for Industry Standards”.