

# HyperLynx Signal & Power Integrity, Thermal



## Introducing HyperLynx Signal Integrity, Power Integrity and Thermal

### HyperLynx® Signal Integrity

- Identify signal integrity issues, evaluate design tradeoffs, and validate fixes.
- Analyze fully-routed designs in BoardSim®
- Perform comprehensive what-if analysis in LineSim®
- Automatically extract and model complex 3D structures in SERDES channels using the quasi-static EM solver, full-wave EM solver or hybrid solver.
- Perform protocol-specific channel compliance verification
- Estimate the timing budget for DDRx interfaces, inclusive of on-chip timing.

### HyperLynx Power Integrity

- Identify power integrity issues, evaluate design tradeoffs, and validate fixes
- Analyze DC drop, decoupling, and plane noise issues during both pre-layout and post-layout analysis
- Estimate board temperatures from increased current density using PI/Thermal co-simulation

### HyperLynx Thermal

- Identify thermal issues, evaluate design tradeoffs, and validate fixes
- Easily specify component power dissipation, environment conditions, enclosure information, and so on.
- Accurate and quick simulation runs due to use of self-adaptive locally refined meshes

## HyperLynx SI/PI Support

When you buy products like HyperLynx SI/PI/Thermal that improve your design productivity and integrate tightly into your business, a comprehensive support program should be seen as an integral part of your product investment.

Support is the insurance that allows your employees to concentrate on their work, while our support staff helps keep your downtime to a minimum and moves your project forward faster.

## Key Support Benefits

- Software enhancements to bring you the latest improvements in product functionality, usability, and performance
- [Support Center](#) for rapid, secure access to online support 24/7
- Technical support backed by an award-winning support team

# Customer Support

## What's New In HyperLynx SI/PI/Thermal VX.2.8 (Nov. 2020)

This release contains significant improvements in almost every type of analysis, from multi-gigabit SERDES interfaces to DC Drop PI analysis. Some incremental improvements have also been made to make it easier to work with S-parameters, which are becoming much more common in these types of analysis.

### SERDES

- The protocol support infrastructure in the SERDES Compliance Wizard has been overhauled to allow for much more flexibility in supporting new SERDES protocols and variants of existing protocols. This has resulted in support for what is currently ~100 different protocol variants in the Wizard, with the capability to easily add additional protocol variants not currently supported

### DDR<sub>x</sub>

- The DDR<sub>x</sub> Wizard has been enhanced to support DDR5. This includes major simulator upgrades to support the new model types for DDR5, as well as a standalone interactive simulation flow for DDR5 DQ and other single ended nets.

### General SI Analysis

- Cross-probing between LineSim and BoardSim. This makes it easier to map extracted schematic elements to their corresponding board features, such as which transmission lines correspond to which trace segments.
- Support for new IBIS EMD format.

### PI Analysis

- Multi-phase VRM support. Multi-phase VRMs which are used to share current between multiple phases can now be modeled and simulated properly in the DC Drop simulator.
- Power Network window. The new Power Network display can be used to set up multiple power nets, including connected power nets, for analysis in an intuitive, comprehensive display

## About Siemens Software Customer Support

Our global team of Support Engineers have exceptional skills in analyzing problems and providing solutions; and this capability is the result of years of product experience and industry practice coupled with continuous investment in training.

Combined with our online Support Center, they help deliver the fastest path to the successful adoption of product enhancements and new releases.

## On Support Center You Can

- Download latest releases
- Access documentation
- Manage & download licenses
- Search the knowledgebase
- Solve technical issues
- Manage support cases