

## Highlights

With the rapid development of artificial intelligence, cloud computing, big data, 5G and IoTs, the electronics industry is driven by the evolution of semiconductor technology.

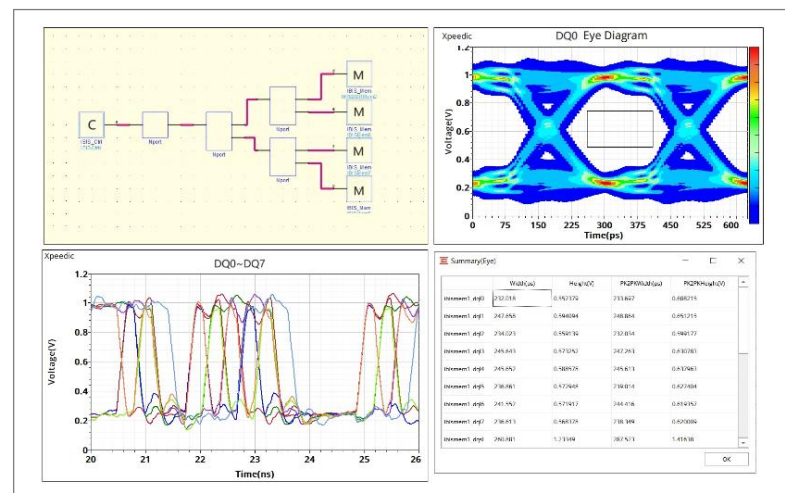
The functionalities of electronic products are getting more diversified, which benefits from the faster signal speed and higher integration. The development cycle and go-to-market (GTM) time are also becoming short.

As electronic products continue to be miniaturized, sophisticated, and high-speed, the channel design needs to fully consider the entire interface link which consists of the transmitter, vias, transmission lines and receivers for accurate simulation.

Xpeedic provides a fast, accurate and easy platform ChannelExpert to analyze, evaluate and solve high-speed channel signal integrity problems, and has built-in industry-leading SPICE simulation engine, 2D transmission line solver and advanced analysis modules.

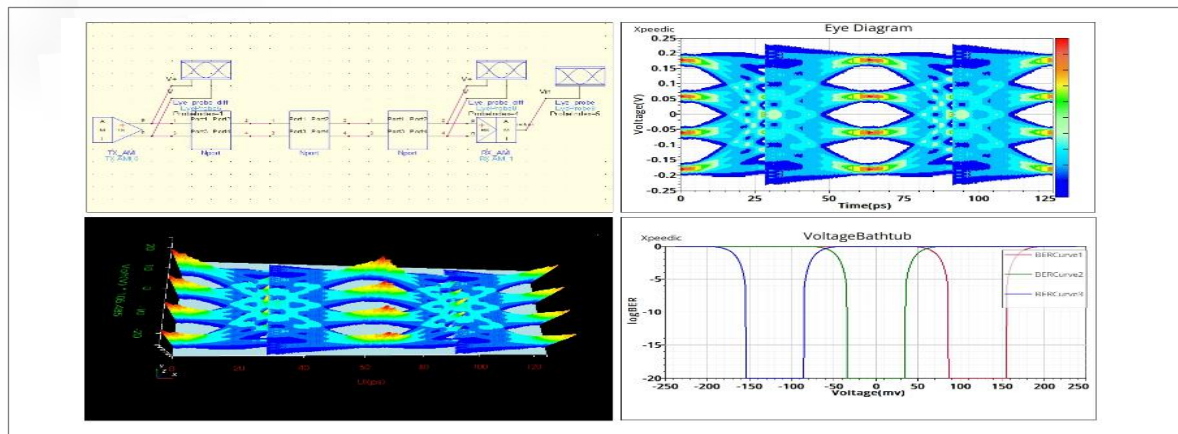
Featured with proprietary Bayesian XAI optimization engine, ChannelExpert eliminates manual parameter configuration and drastically accelerates multi-load SI simulation with visualized convergence & waveform outputs.

1. DDR bus analysis including transient, Stateeye and PDA
2. SerDes channel analysis with IBIS-AMI models
3. Templated AMI model builder
4. Pre-layout channel analysis for IL\_fit, PSXT, ICN, COM and Eye-diagram
5. Support various analysis types: AC, DC, Transient, Sparameter, 2D RLCG solver, Stateeye



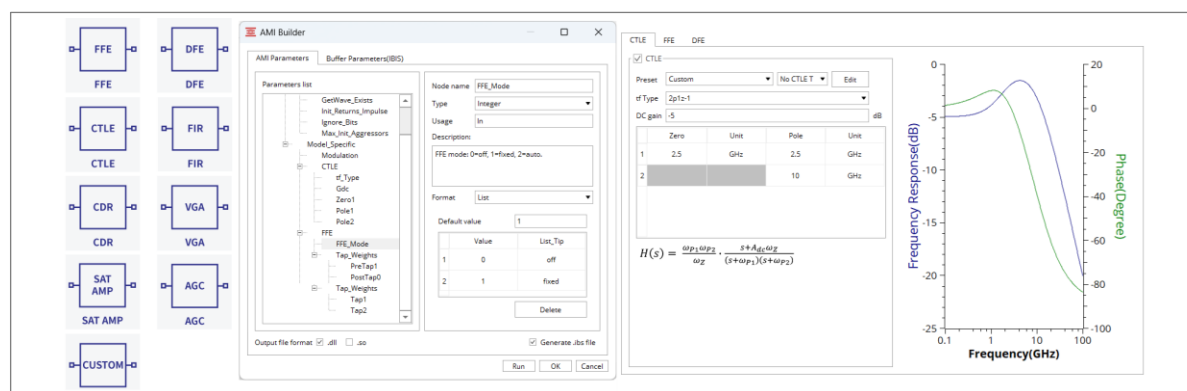
## SerDes Channel Analysis

- Support IBIS-AMI and built-in Tx/Rx buffers.
- Support statistical and bit-by-bit simulation modes.
- Provide Eye-diagram, BER, Eye contour, Bathtub and transient waveform results.



## AMI Model Builder

- Various SerDes blocks: FFE, DFE, CTLE, FIR, CDR and SAT AMP.
- Support pre-defined EQ parameter list for AMI models and one-click model generation.
- Built-in automated optimization of equalization parameters based on channel responses.
- Validation of the created models.



## AI-Driven SI Optimization & Auto Simulation

- Full-process automated simulation covering component modeling, Sparameter extraction and netlist compilation.
- Intelligent XAI engine simplifies optimization work with built-in Bayesian algorithm.
- Significantly improve optimization efficiency for multi-variable & multi-target SI design cases.
- Visual result display helps complete design analysis efficiently.

