



**Annex no. 1**  
**for the inquiry no 4/eCAUSIS/2023**  
**Technical parameters**

**Order subject:**

Electronic circuit design software - one license of HyperLynx SI/PI Bundle or equivalent.

**CPV code: 48000000** - Software packages and information systems

**Brief description of the device:**

The subject of the order is the supply of electronic circuit testing software - HyperLynx SI/PI Bundle SW or equivalent.

**General requirements:**

A software package designed for electronics engineers and PCB package designers, allowing for electromagnetic compatibility (EMC), signal integrity (SI), PCB thermal modeling (Thermal Analysis), current analysis (PI - AC/DC), among others.

**Detailed features of the software:**

Configurations

- Bundle product

Environment

- Pre-layout
- Post-layout
- Interface to 3rd-party PCB flow / PCB translators
- Integrated with CES

Signal Integrity

- Basic IBIS simulation, Stackup Editing, EMC, Multiboard, Loss and Crosstalk
- Import/use S-parameter models in simulations
- DDRx wizard: integrated SI / timing verification
  - DDR,2,3 and LPDDR, 2, 3
  - DDR4 and LPDDR 4
  - NV-DDR2, 3
  - DDR5 and LPDDR5 with IBIS-AMI models
  - Advanced DDRx AMI (support for asymmetric single-ended I/O)
- Pulse response simulation (model-free)
- Stacked die/MCM Electrical Module Description (EMD) support
- EZWave waveform display
- Supports SPICE / ADMS simulation engines
- SerDes analysis



- SerDes Compliance Wizard with support for 210 standard protocols
- Post-layout SerDes extraction (requires HLAS P/N 266125 or 268014)
- Automated identification / modeling of 3D areas (requires FWS or HPC license)
- IBIS-AMI simulation support
- FastEye simulation (SerDes channel simulation without IBIS-AMI models)
- Support for via backdrilling, surface roughness trace modeling
- S-parameter generation, Touchstone Viewer, metrics
- Integrated 3D EM via modeling for simple via configurations

#### Power Integrity

- Touchstone file viewer/checker/transformer
- 3D power viewer
- Stackup editor / field solver
- DC Drop Analysis - complete modeling and reporting, multiboard support
- DC Drop Analysis - Remote sense line and Multi-phase VRM support
- Thermal / DC drop co-simulation
- Decoupling analysis - complete modeling and reporting
- Decoupling acceleration (multi-core simulation)
- Plane noise analysis
  - Dyn. current demand modeling (core, I/O, power up, etc)
  - 3D plane noise oscilloscope
- PDN Decoupling Optimizer

#### Thermal

- Enclosure modeling
- 3D component modeling
- Board / layer copper modeling
- Cooling components - heat sink, heat pipe, chassis screw

#### **License requirements:**

- license:
  - Perpetual
  - NodeLocked (single user execute one software product on ONE adequately configured workstation)
- protection: USB key