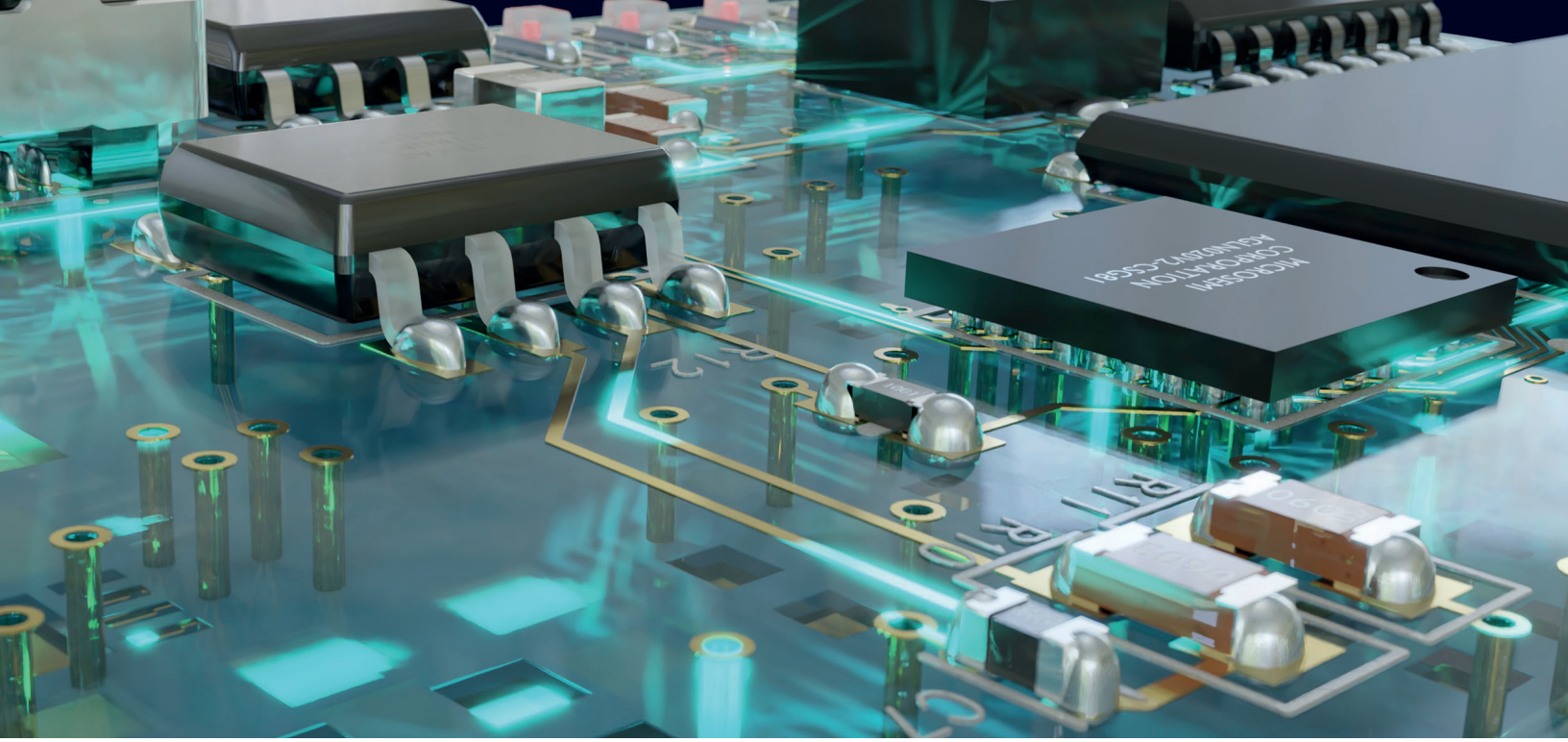

DIGITAL INDUSTRIES SOFTWARE

Xpedition Standard

Designed for today. Scales for tomorrow. Step up to advanced PCB design with Xpedition Standard.

Benefits

- Accelerates PCB development with an integrated schematic-to-layout-to-manufacturing workflow built for independent engineers and growing teams
- Reduces re-spins through constraint-driven design, early verification, and manufacturing-aware outputs
- Improves engineer productivity with AI-assisted workflows, automation, and reusable design intelligence
- Enables teams to automate repetitive tasks and standardize design processes with powerful scripting support

Summary

Xpedition Standard is an adaptable PCB design solution for engineers and teams that need advanced capabilities without the cost and complexity of a full enterprise deployment. Built on proven Xpedition technology, it brings schematic capture, PCB layout, collaboration, component intelligence, manufacturing preparation, design management, and flow automation together in an integrated environment that helps teams design with greater speed, consistency, and confidence.

The solution is designed around engineer productivity. With named user licensing, each user has dedicated access to up to two devices, eliminating the delays and bottlenecks often associated with shared floating-license models. Engineers can stay productive without waiting for a license to become available, while organizations gain a predictable and scalable way to support growing teams.

Benefits *continued*

- Strengthens component decisions with integrated research, ECAD model access, and supply chain insights at the point of design and BOM-level
- Simplifies collaboration across design, review, mechanical, and manufacturing stakeholders
- Scales cost-effectively with named user licensing and token-based access to advanced capabilities on demand

Features

- Advanced schematic capture and PCB layout in a connected Xpedition environment
- Named user licensing with always-on access for productive, interruption-free design
- Robust scripting support to automate repetitive tasks and tailor workflows to team requirements
- AI command prediction and AI-powered block-level design capture enabled through Siemens' collaboration with CELUS
- Integrated constraint management across schematic and layout
- Real-time component research, Smart Datasheet access, ECAD downloads, and sourcing intelligence
- PCB Connect cloud collaboration with browser-based viewing, markup, review, and BOM visibility
- Manufacturing outputs, automated documentation, and Valor-powered DFM analysis
- Token-based expansion for advanced capabilities such as signal integrity simulation, rigid-flex design, and enhanced ECAD-MCAD co-design

As design requirements evolve, Xpedition Standard scales without forcing users into disconnected tools or unfamiliar workflows. ECAD-MCAD co-design is included in the base solution, and a flexible token-based model extends advanced capabilities on demand, including HyperLynx signal integrity analysis, rigid-flex design, and additional ECAD-MCAD functionality for supported environments such as NX. This gives teams access to the functionality they need, when they need it, while preserving design continuity, reducing tool churn, and protecting their investment.

Key capabilities of Xpedition Standard

Xpedition Standard brings together advanced PCB design, workflow automation, connected component intelligence, cloud collaboration, manufacturing preparation, and scalable access to advanced analysis capabilities in a single integrated environment. Built on proven Xpedition technology, it helps independent engineers and growing teams move faster, reduce design risk, and maintain continuity as product and process complexity increase.

General AI productivity

Xpedition Standard improves day-to-day productivity with AI-assisted capabilities that help users work faster and more efficiently. Generative AI command prediction helps streamline common operations and reduce friction in the design flow, while AI-enabled product support provides faster access to relevant product documentation and guidance, helping users resolve questions more quickly and stay focused on design.

Component and supply chain management

Integrated component intelligence helps users make smarter part decisions earlier in the design process. Engineers can research components across a broad set of manufacturer part numbers, access high-quality ECAD models, use AI-assisted Smart Datasheet capabilities, and evaluate sourcing insights during schematic capture and at the BOM level. This supports better component selection, improves supply-aware design decisions, and helps reduce downstream sourcing risk.

Schematic design

Xpedition Standard provides advanced schematic capabilities in a connected environment that supports both productivity and design rigor. Teams can capture designs using hierarchical block structures, apply constraints within the schematic environment, search and download components and ECAD models directly, and benefit from AI-powered block-level design capture enabled through Siemens' collaboration with CELUS. Tight schematic/layout co-design helps maintain continuity as designs move forward.

Workflow automation

Robust scripting support enables engineers and teams to automate repetitive tasks and tailor the design environment to their process requirements. Script-driven design flow automation helps improve consistency, reduce manual effort, and support more repeatable development practices as teams scale.

Capability overview

Functional Category	Feature	Xpedition Standard support
General AI productivity	AI-powered command prediction	•
	AI-enabled product support	•
	AI-assisted datasheet query with Smart Datasheet	•
	AI-powered block-level design capture	•
Component and supply chain management	Component research – 625M+ MPNs	•
	Access to high-quality ECAD models	•
	Component sourcing insights at schematic capture	•
	Component sourcing insights at BOM-level	•
Schematic design	Design constraints in the schematic environment	•
	Hiearchical block design	•
	Integrated component search, ECAD model download	•
	Schematic/layout co-design	•
	Variant management	•
Layout design	Design contraints in the layout environment	•
	3D design	•
	Circuit reuse within a design	•
	Advanced automated routing	•
	Rigid-flex design (token-based add-on)	•
Design and library data management	Library creation	•
	Library management	•
	Design version management and editing	•
	Design review, compare, and markup	•
	PLM integration	•
Multi-domain collaboration	ECAD-MCAD co-design	•
	Advanced ECAD-MCAD co-design functionality with NX (token-based add-on)	•
Manufacturing verification & documentation (powered by Valor)	Manufacturing outputs	•
	DFM checks (DFF, DFA)	•
	Manufacturing drawing and documentation creation for PCB assembly/fab packages	•
	Manufacturing output automation	•
Performance analysis & verification (powered by HyperLynx)	Analog / mixed-signal simulation	•
	Signal integrity simulation (token-based add-on)	•
	DDRx Wizard	option
	Integrated multi-discipline verification	option
	Intelligent design optimization	option
	Power integrity simulation	option
	Electrical rule checks	option
	Schematic analysis	option
Workflow automation	Streamlined out-of-the-box workflow	•
	Script-driven design flow customization	•

Key capabilities of Xpedition Standard

continued

Layout design

The layout environment supports a wide range of PCB design requirements with integrated constraints, 3D design visibility, circuit reuse, and advanced automated routing capabilities. For teams taking on more complex form factors, rigid-flex design can be added through the token-based expansion model. This provides a practical way to scale into more advanced design needs without disrupting the existing workflow.

Design and library data management

Xpedition Standard supports the data continuity needed to manage PCB development more effectively. Teams can create and manage libraries, control design version management and editing, perform design review, compare, and markup activities, and connect to PLM environments where needed. These capabilities help reduce data fragmentation and support more consistent execution across projects.

Multi-domain collaboration

ECAD-MCAD co-design is included in the base Xpedition Standard solution, helping electrical and mechanical teams work together earlier and more effectively. This supports faster identification of enclosure, placement, and fit-related issues while reducing the risk of late-stage integration problems. Additional ECAD-MCAD functionality is available through token-based expansion for supported environments such as NX.

Manufacturing verification & documentation (powered by Valor)

Xpedition Standard helps teams prepare designs for manufacturing with outputs and automation that support a cleaner handoff to fabrication and assembly. Capabilities include manufacturing outputs, manufacturing drawing creation, manufacturing output automation, automated CAD documentation for PCB assembly and fab packages, and cloud-based DFM checks powered by Valor technology. These capabilities help identify manufacturability concerns earlier, improve documentation quality, and reduce the likelihood of downstream manufacturing escapes.

Performance analysis & verification (powered by HyperLynx)

Xpedition Standard includes analog and mixed-signal simulation to support early design validation. For teams that need more advanced verification depth, the solution can scale through optional and token-based capabilities, including HyperLynx signal integrity analysis, power integrity simulation, electrical rule checks, schematic analysis, integrated multi-discipline verification, and intelligent design optimization. This allows organizations to adopt advanced analysis when needed while maintaining a consistent design environment.

Grow without disruption

Xpedition Standard gives engineers and growing teams a practical path to more advanced PCB development without forcing them into disconnected tools, data migration, or retraining. With built-in collaboration, connected component intelligence, manufacturing-aware outputs, and on-demand expansion into advanced capabilities, teams can start with what they need today and scale confidently as requirements evolve.

With Xpedition Standard, engineers and growing teams can design with confidence today and scale to meet tomorrow's PCB complexity without disruption.

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