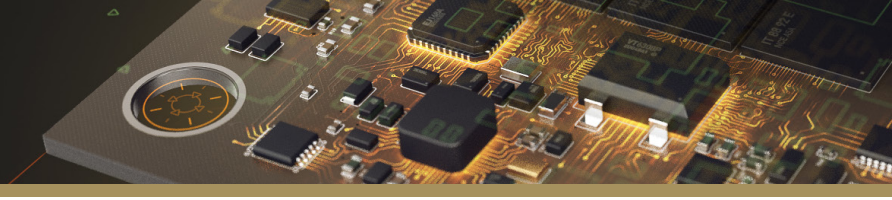
ALTIUM DESIGNER 16

HARMONIZE YOUR PCB DESIGN POTENTIAL



FEATURE SET SUMMARY

Feature	Description	Altium Designer Viewer	Altium Designer SE	Altium Designer
DXP Platform	Software integration platform with a consistent GUI for all supporting editors and viewers. Design insight for document preview, release management, compiler, file management,version control interface, and scripting engine.		✓	✓
Schematic – Viewer	Open, view and print schematic documents and libraries.	✓	✓	✓
PCB – Viewer	Open, view and print PCB documents. Additionally view and navigate 3D PCBs.	✓	✓	✓
CAM File – Viewer	Open CAM, manufacturing (Gerber, Drill, OBD++) and mechanical files.	✓	✓	✓
Schematic – Soft Design Editing	All schematic and schematic library editing capabilities (except in PCB Projects and Free Documents), netlist generation.		✓	✓
Import/Export	Supports import and/or export of designs and library data created in OrCAD®, Allegro®, Expedition®, PADS®, xDx Designer®, Cadstar®, Eagle®, P-CAD®, Protel® and more.		✓	✓
Schematic – Editing	All schematic and schematic library, schematic library documents.		✓	✓
Library Management	Unified library management based on a single data source for all component models and linked data including 3D models, data sheets and supplier links. Single point of contact for version control and external project management systems.	✓ Read only	✓	✓
Altium Vault support	Ability to read, edit and publish design data to a centralized Altium Vault server. Vault includes support for: component models, pricing and availability data, managed sheets and sub-circuits, complete projects, and fabrication/assembly files.	✓ Read only	✓	✓
Simulation – Mixed Signal	SPICE 3F5/XSPICE mixed-signal circuit simulation (with PSpice® compatibility).		✓	✓
Signal Integrity – Schematic Level	Pre-layout signal integrity analysis – includes a full analysis engine and uses defaults for PCB parameters.		✓	✓

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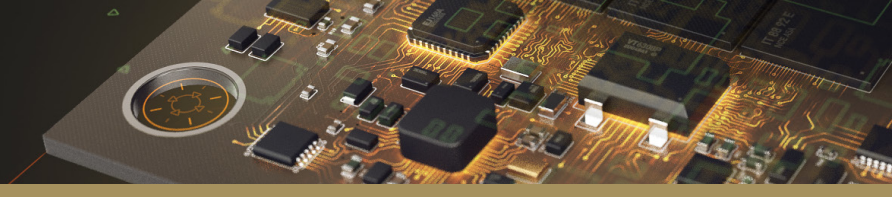
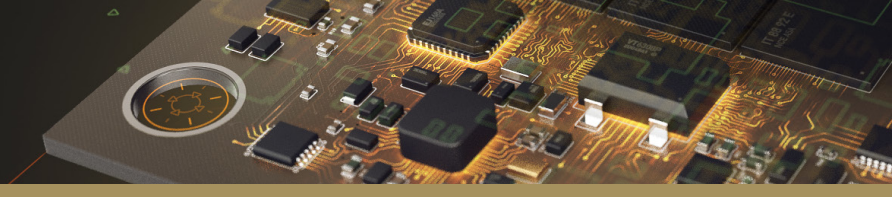


Feature	Description	Altium Designer Viewer	Altium Designer SE	Altium Designer
PCB – Board Definition & Rules	Place/edit objects on mechanical layers, design rules for high-speed design, user-definable layer stack, design transfer from schematic, position components, real-time manufacturing rule checking.		✓	✓
CAM File – Importer (Gerber, ODB++)	Import CAM and mechanical files.	View Only	✓	✓
PCB – Native 3D PCB Viewing and Editing	A realistic and 3D rendered view of the board, includes MCAD-ECAD support with direct linking for STEP models and real-time clearance checking, view configurations for both 2D and 3D, editing of board shape and component models in 3D, and texture mapping of 2D/3D PCB models.	View Only		✓
PCB – Layout	High productivity PCB layout editor, support for complex polygons, board cut-outs, real-time rule checking, design re-use, auto-dimensioning, with intuitive and efficient user interface.	View Only		✓
PCB – Interactive Routing	Interactive routing (Push and Shove, Hugging and Auto-Complete modes), differential pairs, interactive/auto placement, pin/part swapping, and obstacle avoidance during drag operations.			✓
Advanced Layer Stack Management	The ability to define multiple, complex layer stacks in a single design with different layer stack sections in different regions of the PCB, allowing for embedded components and rigid-flex arrangements.	View Only	View Only	✓
Support for Rigid-Flex Design	Complete system for designing flex and rigid-flex PCBs. The ability to define and characterize multiple PCB bending lines in a design. Full 3D, folded and unfolded viewing and clearance design rule checking. Ability to export folded or partially folded 3D STEP models of a board for MCAD collaboration.	View Only	View Only	✓
Embedded Components	Support for embedding discrete components within the PCB stack up. Embedding components within a PCB can improve reliability, increase performance, and provide significant space and save weight.			✓
Topological Autorouting	Topological Autorouting with full layer, object/design rule support, and advanced fan-out tools.			✓
Signal Integrity – Layout Level	Post-layout signal integrity analysis supports reflection and crosstalk analysis.			✓
PCB – Manufacturing File Outputs	Multiple output publishing allows the consolidation of multiple outputs into a single media type for better data management. Publish to PDF, print or web with a controlled view of a project's history and dependencies. Generate Gerber, NC Drill, ODB++, 3D video animations, and STEP files.			✓
CAM File – Editor (Gerber, ODB++)	Panelize, NC route definition, DRC, export CAM and mechanical files, Netlist extraction, import and reverse-engineering.			✓



FPGA FEATURES

Simulation – VHDL	VHDL simulation engine, integrated debugger and waveform viewer, with third-party support for ModelSim and Active-HDL.		✓	✓
NanoBoard Support	Range of auto-configured, swappable target FPGA daughter boards (from all chip vendors) are supported plus plug-in peripheral boards for complete flexibility in system architecture. Power Monitor for FPGA designs.		✓	✓
FPGA Design	Custom FPGA Logic Development in C, OpenBus, Schematic, VHDL and Verilog design synthesis, Custom Wishbone Interface Component.		✓	✓
FPGA Processor Cores	Vendor independent FPGA development environment with support for the devices from manufacturers such as Xilinx®, Altera®, Lattice® and others.		✓	✓
Processor Core Embedded Tools	Full software development tool chain – C compiler/assembler/source-level debugger/profiler for each supported 32-bit processor, Plug-n-Play Software Platform Builder for easier hardware access.		✓	✓
Programmable FPGA - Based Instruments	Pre-synthesized FPGA-ready instruments including Custom Instrument, Terminal Emulator, Digital I/O, Crosspoint Switch, Logic Analyzer, Frequency Generator, Frequency Counter, and Field Dashboard for remote access.		✓	✓
Soft Device JTAG Support	Live connection to soft devices such as virtual instruments and processors running inside an FPGA.		✓	✓
Hard Device JTAG Support	Interactive monitoring of pin status for any JTAG device.		✓	✓
IP Core Design Re-Use	Support for importing third-party FPGA IP cores, developing and reusing IP libraries.		✓	✓

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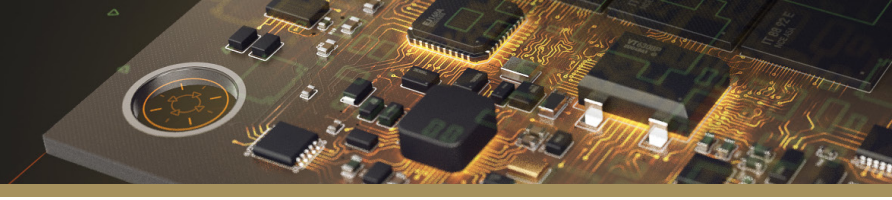

LICENSING OPTIONS

Altium Designer License Options	Schematic	Simulation	FPGA Design	PCB Design	Key Benefits
Altium Designer 15	✓	✓	✓	✓	• Full PCB design and manufacturing capabilities. • Complete front-end engineering system for both PCB and programmable logic design. • Native 3D PCB design and editing capabilities.
Altium Designer SE (System Engineering)	✓	✓	✓		• Complete front-end schematic design for both board-level and programmable logic design. • Analog and digital simulation. • System-on-FPGA implementation.
Altium Designer Viewer	✓ Read only	✓ Read only	✓ Read only	✓ Read only	• Quick, easy and secure read-only exploration of Altium Designer projects and documents. • Cross-Probe and Highlight capabilities for Engineering Design Review.

ABOUT ALTIUM

Altium Limited (ASX: ALU) is a multinational software corporation headquartered in San Diego, California, that focuses on electronics design systems for 3D PCB design and embedded system development. Altium products are found everywhere from world leading electronic design teams to the grassroots electronic design community.

With a unique range of technologies Altium helps organisations and design communities to innovate, collaborate and create connected products while remaining on-time and on-budget. Products provided are Altium Designer®, Altium Vault®, CircuitStudio®, PCBWorks®, CircuitMaker®, Octopart® and the TASKING® range of embedded software compilers.

Founded in 1985, Altium has offices worldwide, with US locations in San Diego, Boston and New York City, European locations in Karlsruhe, Amersfoort, Kiev and Zug and Asia-Pacific locations in Shanghai, Tokyo and Sydney. For more information, visit www.altium.com. You can also follow and engage with Altium via Facebook, Twitter and YouTube.