

Altium Designer Feature Set Summary

		Custom Board Front-End Design	Custom Board Implementation
DXP Platform	Software integration platform, GUI provided for all supporting editors and viewers, Design Insight for design document preview, design release management, design compiler, file management, version control interface, scripting engine and automatic software updates	✓	✓
Schematic – Viewer	Open, view and print schematic documents and libraries	✓	✓
Schematic – Editing	All schematic document and library editing capabilities, netlist generation	✓	✓
Simulation – Mixed Signal	SPICE 3F5/XSPICE mixed-signal circuit simulation (with PSpice® compatibility)	✓	✓
Simulation – VHDL	VHDL simulation engine, integrated debugger and waveform viewer	✓	✓
Signal Integrity – Schematic Level	Pre-layout signal integrity analysis – includes full analysis engine, uses defaults for PCB parameters	✓	✓
PCB – Viewer	Open, view and print PCB documents	✓	✓
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 – Viewer	Open and import CAM and mechanical files	✓	✓
NanoBoard Support	Range of auto-configured, swappable target-FPGA and 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	✓	✓
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	✓	✓
Programmable-Based Instruments	Presynthesized FPGA-ready instruments including Custom Instrument, Terminal Emulator, Digital I/O, Crosspoint Switch, Logic Analyzer, Frequency Generator and Counter and Field Dashboard for remote access	✓	✓
FPGA Processor Cores	Support for a range of 32-bit soft processors for use in an FPGA design: TSK3000A, Xilinx MicroBlaze®, Altera Nios II®, Actel CoreMP7®. Also support for the PowerPC (PPC405A) discrete processor, immersed in the Xilinx Virtex II Pro®, as well as a number of legacy, 8-bit Microcontrollers (TSK51, TSK52, TSK80 and TSK165)	✓	✓
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	✓	✓
Library Management	Unified library management based on a single data store for all component models and linked data such as 3D models, data sheets and supplier links. Single point of contact for version control and external project management systems	✓	✓
PCB – 3D PCB Design Environment	3D Visualization gives a realistic and rendered on-the-fly 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, orthographic projection, texture mapping of 2D and 3D PCB models		✓
PCB – Layout	Image clipboard support, place/edit objects on electrical layers, create footprints, place from library, Import Wizards		✓
PCB – Interactive Routing	Interactive routing (Push and Shove, Hugging and Auto-Complete modes), differential pairs, interactive/auto placement, pin/part swapping, obstacle avoidance during drag operations		✓
Topological Autorouting	Topological Autorouting with full layer, object and design rule support, autoroute PCB files		✓
Signal Integrity – Layout Level	Post-layout signal integrity analysis, full analysis engine with analysis support for PCB routing		✓
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++ and STEP files		✓
CAM File – Editor (Gerber, ODB++)	Import CAM and mechanical files, panelize, NC route definition, DRC, export CAM and mechanical files		✓