PathWave Advanced Design System (ADS) Configuration

More value, simple to choose, easy to configure

PathWave ADS Bundled Software

PathWave ADS Software Bundles provide designers with a choice of value-packed, pre-configured combinations of software built for specific design workflows. These combinations can provide up to four different simulation technologies, system, circuit, electro-thermal and electromagnetic (EM), for communication system, GaAs MMIC, RFIC, RF system-in-package (SiP), RF board and signal integrity designers.

PathWave ADS bundles are comprised of the W3600B PathWave ADS Core + EM Design (EMPro) Core environment and add separate PathWave ADS Simulation Elements, each of which provide specific design and simulation capabilities.

Simulation elements are themselves comprised of one or more separate modules, which add additional design and development functions. These modules, which were formerly sold separately, are now grouped together into very efficient and effective combinations.

Learn more about PathWave ADS Simulation Elements

> Simpler all around PathWave ADS bundled software with simplified licensing and support options make it easy to choose, download and setup your software.
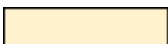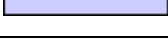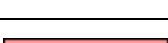
Configure Your New Software

This step-by-step process will help you configure your new PathWave ADS software when making your initial order.

Step 1: Choose your software product

Key building blocks

PathWave ADS bundles are comprised of one or more of these key building blocks		
	ADS Core	ADS platform, schematic capture, data display and much more
	EM Design Core[1]	A 3D solid modeling environment, formerly called EMPro
	Layout	Comprehensive physical design environment including native and links to 3rd party DRC, LVS and more
	RF Ckt Sim	Linear, harmonic balance, circuit envelope, and transient/ convolution circuit simulators
	RFPro	Simplified EM analysis user interface and Momentum 3D Planar and FEM full 3D EM simulation technologies with predictive expert settings
	Sys-Ckt Ver	Ptolemy system and verification test bench engine simulators
	Comp VTBs	Complete set of verification test benches libraries
		Electro-Thermal Simulator
	HSD Ckt Sim	Channel simulation, CILD, and via designer and more
	Mem Designer	Memory designer and DDR bus simulator
	PIPro	PI analysis of PDN, including DC IR drop analysis, AC impedance analysis and power plane resonance analysis
	SIPro	SI analysis of complex high-speed PCBs
	PEPro	EM-circuit co-simulation platform for SMPS designs
	PE Ckt Sim	Combines transient convolution simulator with the PE library

[1] EM Design Core requires a separate EM simulator (e.g. FEM or FDTD) to run EM simulations

Base bundles

A powerful PathWave ADS bundle on its own, the W3600B base bundle is the foundation for all other PathWave ADS bundles. Choosing the W3601B base bundle adds layout design capability.

Note: EM Design provides the *PathWave EM Design (EMPro)* drawing environment, which enables drawing, manipulating and importing/exporting 3D designs.

	Layout
EM Design Core	EM Design Core
ADS Core	ADS Core
W3600B	W3601B

Model	Name	Description
W3600B	PathWave ADS Core + EM Design Core [2]	High-frequency design software, simulation and synthesis package providing tuning, optimization and statistical design support for RF, microwave, MMIC, or RFIC design flows at the enterprise level. Also includes interoperability (Verilog A & EMPro Core).
W3601B	PathWave ADS Core + EM Design + Layout	Adds comprehensive physical design environment specifically geared for high-frequency circuit development, including artwork import/export for ODB++, DXF, Gerber/drill, IGES and GDS-II formats. Also includes Advanced Layout (DRC, LVS, 3rd party DRC/LVS support, RFIC utilities & more).

RF & microwave bundles

Built for RF & microwave design including system, circuit, EM, GaAs MMIC, silicon RFIC, RF SiP/module, and/or RF board design applications.

						Comp. VTBs
					Sys-Ckt Ver	Sys-Ckt Ver
		Momentum	RFPro	RFPro	RFPro
HB	RF Ckt Sim	RFPro	HB	RF Ckt Sim	RF Ckt Sim	RF Ckt Sim
Layout	Layout	Layout	Layout	Layout	Layout	Layout
EM Design Core	EM Design Core	EM Design Core	EM Design Core	EM Design Core	EM Design Core	EM Design Core
ADS Core	ADS Core	ADS Core	ADS Core	ADS Core	ADS Core	ADS Core
W3602B	W3603B	W3604B	W3605B	W3606B	W3607B	W3608B

Figure 1. PathWave ADS RF & microwave bundles.

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[2] EM Design Core requires a separate EM simulator (e.g. FEM or FDTD) to run EM simulations

Model number	Description
W3602B	Freq-domain non-linear designs
W3603B	Freq/time domain non-linear designs with digitally modulated signals
W3604B	Freq-domain linear designs with RFPro EM simulation
W3605B	Freq-domain non-linear designs with Momentum EM simulation
W3606B	Freq/time domain non-linear designs with digitally modulated signals and RFPro EM simulation
W3607B	Freq/time domain non-linear designs with digitally modulated signals and RFPro EM simulation and includes system level simulation
W3608B	Freq/time domain non-linear designs with digitally modulated signals and RFPro EM simulation and includes system level simulation and verification test benches libraries

High-speed digital bundles

Built for high-speed digital PCB designs including SerDes link, power integrity (PI) electromagnetic (EM) and PI system simulation, and/or both SerDes and DDR (pre-layout / SI EM extraction) applications.

						FEM
					Mem Design	
				PIPro	PIPro	PIPro
		PIPro	SIPro	SIPro	SIPro	SIPro
	Mem Design	HSD Ckt Sim	HSD Ckt Sim	HSD Ckt Sim	HSD Ckt Sim	HSD Ckt Sim
HSD Ckt Sim	HSD Ckt Sim	Layout	Layout	Layout	Layout	Layout
EM Design Core	EM Design Core	EM Design Core	EM Design Core	EM Design Core	EM Design Core	EM Design Core
ADS Core	ADS Core	ADS Core	ADS Core	ADS Core	ADS Core	ADS Core
W3621B	**W3622B**	**W3623B**	**W3624B**	**W3625B**	**W3626B**	**W3627B**
SerDes simulation	SerDes & memory simulation	Power Integrity focus	Post-layout EM verif. for SerDes	Post-layout EM verif. for SerDes & PI	Post-layout EM verif. for SerDes, memory & PI	Highest accuracy EM simulation

Figure 2. PathWave ADS high-speed digital bundles.

Power electronics bundle

Built for power converter design for power generation and transmission, aerospace-defense, automotive, data center, consumer electronics, and IoT applications.

Figure 3. PathWave ADS power electronics bundle.

Electromagnetic design environment bundle

Electromagnetic design core is a 3D solid modeling environment for creating arbitrary 3D objects and importing existing models from other CAD environments. The W4300B PathWave EM Design (EMPro) Core is a standalone 3D EM design platform. The *PathWave EM Design Core* is also included in all PathWave ADS bundles and requires a separate EM simulator (e.g. FEM or FDTD) to run EM simulations

Figure 4. PathWave EM Design Core bundle.

Step 2: Select desired license term

Table 1. License terms

License term	Description
Perpetual[3]	Perpetual licenses can be used indefinitely
Subscription	Subscription licenses can be used through the term of the license (6, 12, 24, or 36 months)

3. The purchase of EDA perpetual licenses is no longer available. For more information, refer to
https://www.keysight.com/find/eda-perpetual-license-letter

Step 3: Select desired license type

Table 2. License types

License term	Description
Node-locked	License can be used on one specified instrument/computer
USB portable	License can be used on one instrument/computer at a time but can be transferred to another using a certified USB dongle (available for additional purchase, Keysight part number E8900-D10).
Floating	Networked instruments/computers can access a license from a server one at a time. Multiple licenses may be purchased for concurrent usage. Four types of floating license are available: **N** – **Single site:** 1-mile radius from the server; **Q** – **Telecommuter:** A time-zone in Americas; a country in Europe/Asia; **R** – **Single region**[4]**:** Americas; Europe; Asia; **W** – **Worldwide** (export restriction identified in end user license agreement (EULA))

4. Americas (North, Central, and South America, Canada); Europe (European Continent, Middle Eastern Europe, Africa, India); Asia (North and South Asia Pacific Countries, China, Taiwan, Japan).

Step 4: Choose your support subscription and duration

Table 3. KeysightCare software support subscription

Subscription	Description
KeysightCare support subscription	Perpetual licenses are sold with a 12 (default), 24, 36, or 60-month software support subscription. Support subscriptions can be renewed for a fee after that.
	Subscription licenses already include a software support subscription through the term of the license.

Floating License Server Requirements

The PathWave ADS floating license requires loading a vendor daemon on a license server. This server may be the same PC running the PathWave ADS software. Full installation instructions and support are provided for compatible server operating systems: Windows 7 Professional, Enterprise, Ultimate (64-bit); Microsoft Windows 8 Professional or Enterprise; Microsoft Windows 10 Professional or Enterprise (64-bit); or Linux (ADS version above 2020).

Visit www.keysight.com/find/license-server

Download the latest software!

Downloading the latest version of PathWave ADS software is easy.

www.keysight.com/find/ads-downloads

Resources

Learn more about:

- PathWave Design Software
- Software Terms, Types and KeysightCare Software Support Subscriptions

Learn more at: www.keysight.com

For more information on Keysight Technologies' products, applications or services, please contact your local Keysight office. The complete list is available at: www.keysight.com/find/contactus

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