Keysight RF Synthesis (Genesys) Configuration

Affordable RF Circuit Synthesis & Simulation software

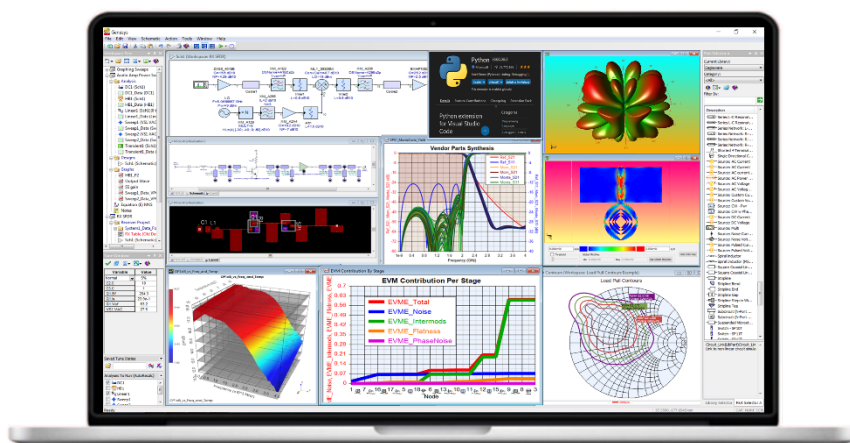### Keysight RF Synthesis Bundled Software

Keysight RF Synthesis software bundles provide RF design engineers with a choice of value-packed, pre-configured software bundles built specifically for RF circuit synthesis and simulation. These combinations enable you to analyze RF/microwave circuits and systems with fast simulation, powerful synthesis and optimization technologies. Explore performance-cost trade-offs with fast automatic circuit synthesis of multiple hardware realization options. Keysight RF Synthesis provides affordable, easy-to-use and accurate functionality suitable for all RF/microwave circuit board and subsystem designers.

Keysight RF Synthesis bundles start from the *W5300B Keysight RF Synthesis (Genesys) Core* environment with incremental addition of increasingly powerful RF Synthesis and Simulation element capabilities.

Synthesis and Simulation elements are themselves comprised of one or more separate modules, which add additional synthesis and simulation functions. These modules, which were formerly sold separately, are now grouped together into very powerful and affordable combinations.

Simpler all around, Keysight RF Synthesis bundled software configurations with simplified licensing and support options make it easy to choose, download and setup your software.

Configuration Your New Software

This step-by-step process will help you configure your new Keysight RF Synthesis software when making your initial order.

Step 1: Choose your software product

Base bundle

The W5300B Keysight RF Synthesis (Genesys) Core bundle is the foundation for all other Keysight RF Synthesis bundles. It is already a powerful starter bundle containing the easy-to-use Genesys user environment comprising schematic capture, linear & statistical simulators, optimizers, data display, layout, Matlab scripting and instrumentation links. The remaining Keysight RF Synthesis bundles add powerful circuit synthesis; nonlinear circuit, system and electromagnetic simulators to the core environment.

Try before you buy!

Download Keysight RF Synthesis software and use it free for 30 days. Visit www.keysight.com/find/rf-synthesis-evaluation

Model	Name	Description
W5300B	Keysight RF Synthesis (Genesys) Core	Easy-to-use design Interface, Schematic capture, Linear & Statistical simulators, Optimizers, Data display, Layout, Matlab scripting, Instrument links
W5301B	Keysight RF Synthesis (Genesys) Core + Synthesis	Core + 12 automatic circuit Synthesis tools for Matching, Filters (lumped, distributed, hybrid, active and custom), Oscillators, Mixers, Signal control (splitters, couplers, attenuators), PLL, Transmission lines, Vendor parts discrete R,L,C selection
W5302B	Keysight RF Synthesis (Genesys) Core + System	Core + RF system architecture simulation with root cause analysis to identify system blocks that degrades performance; WhatIF frequency planning tool to instantly identify spurious free bands from high & low side mixer configurations
W5303B	Keysight RF Synthesis (Genesys) Core + Synthesis + Circuit	Core + all Synthesis + Nonlinear circuit simulators, including frequency-domain Harmonic Balance (Harbec) and time-domain Transient (Cayenne) simulators. Useful for amplifier, mixer and oscillator designs
W5304B	Keysight RF Synthesis (Genesys) Core + Synthesis + EM	Core + all Synthesis + 3D planar electromagnetic simulator (Momentum) to accurately predict and visualize effects of physical layout on circuit performance and patch antenna radiation characteristics
W5305B	Keysight RF Synthesis (Genesys) Core + Synthesis + Circuit + EM	Core + all Synthesis + all Circuit simulators + 3D planar EM simulator
W5306B	Keysight RF Synthesis (Genesys) Core + System + Modulated-RF	Core + System architecture and WhatIF frequency planning + Dataflow simulator (SystemVue engine) for Modulated RF system analysis (EVM, ACPR, Constellation). Useful for any system design that involves digitally modulated RF signals

W5307B	Keysight RF Synthesis (Genesys) Core + Synthesis + System + Modulated-RF	Core + all Synthesis + all System and WhatF frequency planning + Modulated RF system analysis
W5308B	Keysight RF Synthesis (Genesys) Core + Synthesis + Circuit + System + Modulated-RF	Core + all Synthesis + all Circuit simulators + all System and WhatIF frequency planning + Modulated RF system analysis
W5309B	Keysight RF Synthesis (Genesys) Core + Synthesis + Circuit + System + Modulated-RF + EM	Best-selling bundle with all Synthesis; and Circuit, System and EM simulators included. Most cost-effective way to get all essential RF circuit and system design capabilities

						EM		Modulated RF	Modulated RF
					EM		Modulated RF	System	System
			Circuit	EM	Circuit	Modulated RF	System	Circuit	Circuit
	Synthesis	System	Synthesis	Synthesis	Synthesis	System	Synthesis	Synthesis	Synthesis
Core	Core	Core	Core	Core	Core	Core	Core	Core	Core
Model Number W5300B	W5301B	W5302B	W5303B	W5304B	W5305B	W5306B	W5307B	W5308B	W5309B
Keysight RF Synthesis (Genesys) Bundle Name	Core	Core + Synthesis	Core + System	Core + Synthesis + Circuit	Core + Synthesis + EM	Core, + Synthesis + Circuit + EM	Core + System + Modulated-RF	Core + Synthesis + System + Modulated-RF	Core + Synthesis + Circuit + System + Modulated-RF	Core + Synthesis + Circuit + System + Modulated-RF + EM
Environment										
Genesys core	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Testlink	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Synthesis										
Filter		Y		Y	Y	Y		Y	Y	Y
M/Filter		Y		Y	Y	Y		Y	Y	Y
Match		Y		Y	Y	Y		Y	Y	Y
Advanced Tline		Y		Y	Y	Y		Y	Y	Y
S/Filter		Y		Y	Y	Y		Y	Y	Y
A/Filter		Y		Y	Y	Y		Y	Y	Y
Equalize		Y		Y	Y	Y		Y	Y	Y
Oscillator		Y		Y	Y	Y		Y	Y	Y
PLL		Y		Y	Y	Y		Y	Y	Y
Signal control		Y		Y	Y	Y		Y	Y	Y
Mixer		Y		Y	Y	Y		Y	Y	Y
Vendor Parts		Y		Y	Y	Y		Y	Y	Y
Circuit Simulators										
Harbec				Y		Y			Y	Y
Cayenne				Y		Y			Y	Y
System Simulator										
Spectrasys			Y				Y	Y	Y	Y
WhatIF			Y				Y	Y	Y	Y
Modulated-RF										
Dataflow Simulator							Y	Y	Y	Y
EVM Budget Analysis							Y	Y	Y	Y
EM Simulator										
Momentum					Y	Y				Y
Sonnet Link					Y	Y				Y

Step 2: Select desired license term

Table 1. License terms

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

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** [2]**:** Americas; Europe; Asia; **W** – **Worldwide** (export restriction identified in End User License Agreement (EULA))

2. 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 Keysight RF Synthesis floating license requires loading a vendor daemon on a license server. This server may be the same PC running the Keysight RF Synthesis software. Full installation instructions and support are provided for compatible server operating systems: Microsoft Windows 11 (64-bit) or higher.

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

Resources

Learn more about:

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

Download the latest software!

Downloading the latest version of Keysight RF Synthesis software is easy.

www.keysight.com/find/rf-synthesis-downloads

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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