

Keysight Technologies

GENESYS Concepts

Course Overview

Course Numbers: Keysight Training Center: N3244A

Onsite Training Center: N3244B

Learn Through a Combination of Lecture and Hands-on Exercises

Course overview

Keysight Technologies, Inc. offers this three-day, hands-on course presenting simulation and synthesis methodologies for both circuits and systems. Topics include linear and nonlinear simulation in addition to synthesis.

What you will learn

- The GENESYS user interface, features, schematic capture, simulation setup and results display.
- Synthesis of filters, mixers, oscillators
- Basic design and measurement concepts where applicable

Specifications

Course type

User/ Application Training

Audience

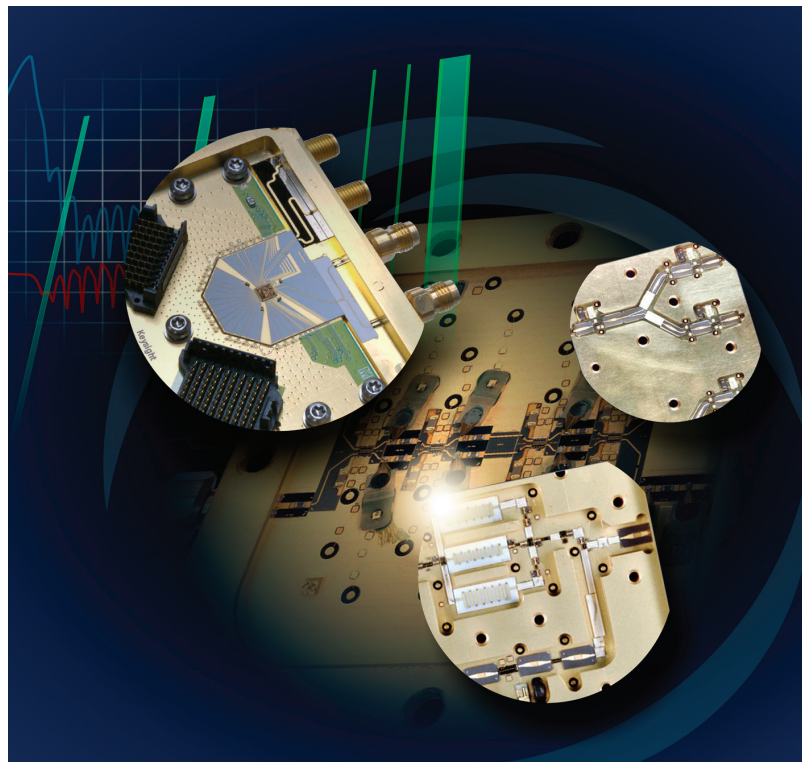
Engineers, designers, and high-level technicians who need GENESYS for design, testing, and characterization of circuits and systems.

Prerequisites

A basic understanding of circuit and system design principles

Course length

3 days



Course format

Lecture and Lab

Delivery method

Scheduled (at Keysight training locations), or Dedicated (at a customer site) To save you time and travel, many Keysight courses can be delivered at your site. Keysight can provide the required equipment.

Detailed Course Agenda

Day 1

GENESYS basics

- Starting and using GENESYS, including conversion from older wsp to wxs. Analysis capabilities: linear, non-linear and synthesis, plus the system tool. Workspace basics – overview of how to use the workspace, directory tree and files, tune window, schematic basics with keyboard keys, global settings, parts selector, basic analysis and resulting dataset and plot.

Filter synthesis, layout and EMpower

- Overview of synthesis features and synthesis dialogs. Show filter synthesis and tune the filter. Show the layout and how it works with schematic. Show EMpower.

Libraries, parts, and models

- Overview of libraries and how they are used, including how library parts are created and how parameters are used – also including symbol creation.

Day 2

Linear analysis, sweeps, and optimization

- Quick overview of DC, AC, and S-Parameter setups and results. How to use ports and pins for SP analysis. How to set up a sweep and plot results. Overview of optimization setup and types available.

Non-linear analysis and data

- Overview of HB (Harbec) for 1- and 2-tone setups. Sweeping power and plotting with equations. More on data analysis.

Synthesis: matching, mixers and oscillators

- Introduction to synthesis, basic concepts and limitations, user interface basics. Show types and results.

Day 3

WhatIF

- Describe Frequency Planning: WhatIF. Describe the application and why existing solutions are limited. Focus on the using WhatIF.

SpectraSys basics

- Introduction to SpectraSys – basic concepts, models, and available measurements.

SpectraSys applications

- Typical applications for SpectraSys, including noise performance investigations, a feedforward amplifier and switch matrix/sub-circuits.

For the latest information on class schedules and locations, visit:

www.keysight.com/find/eesof-class

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

Americas

Canada	(877) 894 4414
Brazil	55 11 3351 7010
Mexico	001 800 254 2440
United States	(800) 829 4444

Asia Pacific

Australia	1 800 629 485
China	800 810 0189
Hong Kong	800 938 693
India	1 800 112 929
Japan	0120 (421) 345
Korea	080 769 0800
Malaysia	1 800 888 848
Singapore	1 800 375 8100
Taiwan	0800 047 866
Other AP Countries	(65) 6375 8100

Europe & Middle East

Austria	0800 001122
Belgium	0800 58580
Finland	0800 523252
France	0805 980333
Germany	0800 6270999
Ireland	1800 832700
Israel	1 809 343051
Italy	800 599100
Luxembourg	+32 800 58580
Netherlands	0800 0233200
Russia	8800 5009286
Spain	800 000154
Sweden	0200 882255
Switzerland	0800 805353
	Opt. 1 (DE)
	Opt. 2 (FR)
	Opt. 3 (IT)
United Kingdom	0800 0260637

For other unlisted countries:

www.keysight.com/find/contactus

(BP-09-23-14)

www.keysight.com/find/eesof