89600 VSA Software Product Training eLearning Program

Get the best education quickly from trusted experts

Benefits

Get the most out of your Keysight software quickly, building your measurement confidence and insight.

Complete duration

5 hours

eLearning Program Overview

A complete and focused set of eLearning modules to help you find success with your Keysight 89600 VSA software at your pace.

What you will learn

The program begins with an introduction to fundamentals of vector signal analysis. This is followed by detail on the 89600 VSA software including the theory of operation and how to use its core analysis features such as triggering, markers, and record and playback to examine signals in the time, frequency, and modulation domains. Before making measurements for characterization, analysis, or troubleshooting proper signal demodulation must be performed.

Therefore, an in-depth study of digital demodulation covering how IQ modulation works, the different types of available measurements including commonly used eye diagrams and EVM, and steps to making accurate digital modulation measurements are presented. The program has been designed to help you get the most productivity and value from your VSA software.

Who should attend?

Hardware design and software engineers in the wireless communications and aerospace & defense industries. This is of particular interest for new or experienced engineers looking to optimize the use of the VSA software for evaluation and development of components, transmitters and systems.

KEYSIGHT

Delivery method

State-of-the-art self-paced eLearning modules developed by Keysight experts.

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eLearning module	What you will learn	Duration
Vector signal analysis introduction and theory of operation	• Block diagram • Sampling and aliasing • Demodulation • FFTs and the relationship between time and frequency • Windowing • Baseband vs. zoom data • Multi-channel configurations	1 hour

89600 VSA software introduction	• Software overview
	• Core analysis features
	  ○ Triggering
	  ○ Averaging
	  ○ Markers and limits
	  ○ Spectrogram
	  ○ Time-gating
	  ○ Recording & playback
	  ○ Macros
		1 hour

Digital demodulation	• Modulation basics
	  ○ Analog modulation
	  ○ Digital modulation
	  ○ Frequency modulation
	  ○ Filtering
	• Digital modulation measurements
	  ○ Measurement types
	  ▪ Power
	  ▪ Frequency
	  ▪ Timing
	  ▪ Modulation accuracy
	  ○ VSA digital demodulation block diagram
	  ○ Eye diagrams
	  ○ EVM
	  ○ Digital demodulation properties
	  ○ Common impairments
	  ○ Steps to digital demodulation
	  ○ Equalization
		2 hours

Comprehensive exam	• Comprehensive test covering all modules	1 hour
Program Package T6504A-100-ABA	• All three vector signal analysis modules, as described above • Comprehensive exam • Program completion certificate	5 hours

Next step

Sign up today at www.keysight.com/find/VSATraining

Keysight enables innovators to push the boundaries of engineering by quickly solving design, emulation, and test challenges to create the best product experiences. Start your innovation journey at www.keysight.com.

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