

Agilent's ENA Series Network Analyzer Operation

Course Data Sheet

H7215B-245

Come up to speed quickly and make effective measurements with the ENA series of Network Analyzers

Course Overview

Agilent Technologies provides a two-day user's course on the operation of the ENA series of network analyzers. To lay a foundation, the course begins with transmission line and S-parameter theory. Next is instruction on how to operate the ENA's Windows 2000 interface along with its front panel and optional touch screen for trace and channel set-up. Additional topics are the ENA's internal architecture, calibration techniques, and Fixture Simulator software functions. These functions include balancedto-unbalanced conversion, network de-embedding, impedance conversion, and matching.

What You will Learn

Upon completion of this course you will be able to:

- Operate the ENA using the Windows 2000 interface
- Use the front panel and touch screen
- See how the internal architecture applies to the ENA's operation
- Make balanced and multiport measurements
- Use the Fixture Simulator
- Calibrate the ENA

Specifications

Course Type Instrument operation

Audience

RF & Microwave and Signal Integrity Engineers and Technicians who need to operate an ENA.

Prerequisites An understanding of RF Fundamentals. **Course Length** 2 Days

Course Format 70% Lecture and 30% Lab/Demo.

Delivery Method

In a classroom, face to face, at your site. Agilent can provide the required instruments, or you can save money by furnishing your own.

Detailed Course Agenda

Introduction

Product Operation Fundamentals

- Transmission Line Theory
- The Smith Chart
- S-Parameters
- Data Entry/Front Panel Navigation
- Trace, Window, Channel Allocation
- Sweep Set-up
- Markers and Limit Lines



Internal Architecture

- Sources and Sweep Modes
- Signal separation
- Multi-Port Test Set Configurations
- Receiver Types
- Display

Calibration

- Measurement errors
- Calibration types
- Error models and Accuracy
- Calibrating on the ENA
- Muti-Port and ElectronicCAL

Fixture Simulator

- Balanced-to-unbalanced conversion
- Differential and Common Mode
- Mixed-Mode S-parameters
- De-embedding, Impedance Conversion, Matching

Time Domain

Ordering Information

H7215B-245

ENA Series Network Analyzer Operation, delivered on-site

For more information go to: www.agilent.com/find/training

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Our repair and calibration services will get your equipment back to you, performing like new, when promised. You will get full value out of your Agilent equipment throughout its lifetime. Your equipment will be serviced by Agilent-trained technicians using the latest factory calibration procedures, automated repair diagnostics and genuine parts. You will always have the utmost confidence in your measurements.

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Product specifications and descriptions in this document subject to change without notice.

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