
Antenna System Verification & Characterization User Training

Technical Data

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Productivity**

Class Overview

This course is designed to provide in depth knowledge of Antennas system verification and characterization technology. Class includes the operation and field applications used in order to maximize the Cellular/ RF Technicians productivity.

Course Features

- Antenna feedline system
- Potential problems
- Typical measurements
- Measurement theory
- Specific antenna feedline system tests
- Source of measurement test
 - Test Equipment
 - Different types
 - Comparisons
 - Solutions available from Hewlett-Packard

Specifications

Course Length

1 day

Audience

RF network technicians and/or engineers involved with the installation, maintenance manufacturing and servicing of cellular and PCS networks and network elements.

Prerequisites

General Knowledge of RF communications networks and related technology.

Delivery Method

Dedicated

Format

Course content is 60% lecture and 40% hands-on labs to familiarize the students with the antenna system verification and characterization and its applications.

Classroom Training Benefits

Experienced HP Instructors

Learn from an experienced HP instructor who is a specialist in using and applying test instrumentation to optimize and troubleshoot cellular and PCS networks.

Available at HP Classroom or Your Site

Classes can be arranged at one of HP's many learning facilities located across the country. Or, save travel expenses and time by organizing a dedicated class at your location.

Extensive Hands-on Practice

HP classroom training is characterized by extensive hands-on experience and interactive class discussion. HP classroom training pays off immediately because it is geared to real-world solutions.

Comprehensive Student Materials

Copies of course materials are provided for future reference on the job.

Antenna System Verification & Characterization User Training (H7210B opt. 202)

Detailed Course Agenda

Introduction

Potential Problems

- Transmission lines
 - weather damage
 - lighting
 - moisture
 - vandalism
 - cable discontinuities
 - pinched cables
- Antenna damage
 - lighting
 - corrosion

Connectors

- low quality connectors
- poor connector contact
- corroded connectors
- moisture
- corrosive atoms

Typical Measurements

- Before installation (incoming inspection)
 - cable return loss
 - characteristic impedance
 - velocity factor
- Installation (*baseline tests*)
 - insertion loss
 - antenna return loss (SWR)
 - feedline system return loss (SWR)
 - fault location
 - length
- Maintenance (*compare to baseline*)
 - feedline system return loss (SWR)
 - fault location
- Installation and Maintenance Planning

Course Number: H7210B opt. 202 (Dedicated)

Test Equipment

- Pulsed measurement method
 - Time Domain Reflectometer (TDR)
- Swept measurement method
 - Scalar
 - spectrum analyzer with tacking generator
 - service monitor (cell site test set)
 - network analyzer
 - Vector
 - network analyzer

Ordering Information

To order Antenna System Verification & Characterization User Training (H7210B opt. 202) course in the U.S. call 1-800-HPCLASS (800-472-5277).

HP's Customer Registration Center can provide you with price, scheduling and enrollment information about dedicated delivery or customizing a course for your specific needs.

Outside the U.S., contact your nearest local HP sales office.

Region Sales Headquarters:

United States:

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