Introduction to Digital RF Communication Technology

Technical Data

HP Education Services: Your Key to Higher Productivity

Class Overview

This course teaches the development of the basic building blocks and techniques used in digital RF communications systems today. This includes terminology and a basic discussion of the features for various systems. A logical approach is used to cover the basic blocks of the digital radio starting with methods used to digitize voice through types of detection schemes used to recover the information in the receiver.

Course Features

This course provides answers to the most important questions being asked about digital communications:

- What are the benefits if digital communications?
- Why move to digital?
- What is the technology behind digital communications?

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 analog RF communications networks.

Delivery Method
Dedicated

Format
Course content is 80% lecture and 20% hands-on labs to familiarize the students with Digital 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 digital 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.

Course Number: H7210B opt. 100 (Dedicated)

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Detailed Course Agenda

- Benefits of Digital Communications
- Features in Digital
- Voice Coding and Decoding
- VOCODER Concepts
  - VSELP
  - CELP
- Error Correction
- Viterbi Decoding
- Channels
  - FDMA / TDMA
  - FDMA / TDMA / TDD
  - CDMA
- Modulation Formats
- BPSK
- QPSK
- Filters
  - Nyquist
  - Time Response
- I / Q Modulator
- CDMA Link Constellation
  - Forward
  - Reverse
- CDMA Systems
- Signaling and Data bits
- System Overview
- Conclusion

Ordering Information

To order The Introduction to Digital RF Communications Technology (H7210B opt. 100) 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:
Hewlett-Packard Company
Test and Measurement Organization
5301 Stevens Creek Blvd.
Bldg. 51L-SC
Santa Clara, CA 95052-8059
(408) 246-4300

Canada:
Hewlett-Packard Ltd.
5150 Spectrum Way
Mississauga, Ontario L4W 5G1
(905) 206-4725

European Headquarters:
Hewlett-Packard S.A.
150, Route du Nant d'Avril
1217 Meyrin 2 - Geneva, Switzerland
(41) 22/780 8111

Japan:
Hewlett-Packard Japan Ltd.
NAF Bldg.
3-8-20 Takaido-higasi
Suginami-ku
Tokyo 168
(03) 3335-8111

Latin America:
Latin America Region Headquarters
Monte Pelvoux No. 111
Lomas de Chapultepec
11000 Mexico, D.F. Mexico
(525) 202 0155

Australia/New Zealand:
Hewlett-Packard Australia Ltd.
31-41 Joseph Street, Blackburn
Victoria 3130, Melbourne, Australia
(03) 895-2895

Far East:
Hewlett-Packard Asia Ltd.
17-21/F Shell Tower, Times Square
1 Matheson Street, Causeway Bay
Hong Kong
(852) 2506-9285

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