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# D-Channel Communication Technology

## Technical Data

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### Class Overview

This course is designed to provide a general nature of D-Channel communications with examples of how B-Channel calls are setup and taken down using call control messages on the D-Channel. It will also explain how packet data messages are handled on the B-Channel and D-Channel.

### Course Features

- Packet Data Concepts
- Open Systems Interconnect Model
- Spectrum Monitoring and Channel Quality Measurements
- D-Channel Protocol
  - Layer 3 (Network)
  - Layer 2 (Frame)
  - Layer 1 (Physical)

### Specifications

#### Course Length

2 days

#### 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 HP 8921 and its applications.

### Classroom Training Benefits

#### Experienced HP Instructors

Learn from an experienced HP instructor who is an 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.

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## **D-Channel Communication Technology (H7211B opt. 204)**

### **Course Agenda**

- Packet Data Concepts
- Data transmitted in Parts (rather than whole)
- User information Transmitted in Frames
- Open Systems Interconnect Model
- Modular Approach to Protocols
- Changing Layers without affecting other Layers
- Upper 4 Layers Comprise User Information
- D-Channel Protocol
- Layer 3 (Network)
- Conforms to OSI Model
- Described in CCITT I and Q Recommendations
- Modem Operation
- Spectrum Analyzer Operation**
- Monitor Operation
- Swept Cable Measurement
- ERP Calculation

### **Frequency Plan Development and Editing**

- Copying
- Cataloging/Back-up to Card
- Frequency Plan Preparation
- Lap Top Emulator
- MSC Dial Up Test
- Soft Key Customization
- Auto Test Software
- Calibration

### **Antenna Sweeps**

- Manual Antenna Sweeps
- Insertion Loss
- Return Loss
- Swept Gain
- AMPS Channel Return Loss
- Cable Fault Test

### **Ordering Information**

To order D-Channel Communication Technology (H7211B opt. 204) 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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