



communications

Satellite Networks

PROGRAM DESCRIPTION

Course:	Fundamentals of Video Delivery over DVB
Delivery Method:	Instructor-Led
Target Audience:	Engineers, Technicians, Program/Project Managers, Sales Engineers, Systems Engineers and Product Managers seeking to understand the basic technical concepts in the delivery of video over DVB
Course Length:	1 Day
Class Size:	up to 15
Description:	This course provides a technical overview of the hardware and software components, industry standards, encoding and multiplexing techniques and the transport issues associated with delivering video via DVB. A review of IP video and the emerging MPEG-4 standard is also provided. Topics include: ❖ Understanding DVB and MPEG 2 ➤ DVB Standards ➤ Modulation and Coding Options • Satellite Link • QPSK, 8PSK, and TurboCode • Bandwidth vs. Power • Saturated vs. Unsaturated Transponder ❖ Encoding MPEG 2 ➤ Standards and Formats ➤ Encoding Techniques ➤ New Developments

- Lower Data Rates
- Prefiltering
- ❖ Transrating
- ❖ Multiplexing Techniques
 - Encoder Feedback
 - Without Encoder Feedback
 - Cascaded Encoders
 - Data Injection
- ❖ IP Encapsulation
- ❖ Transport Stream Structure
 - Channels, PIDs, Time Sync.
 - Tables
- ❖ Conditional Access
- ❖ Receivers
 - Integrated Receiver Decoders
 - PC Based
- ❖ IP Video
 - MPEG 1 and MPEG 4
 - Target Applications
 - Encoding Systems
 - MPEG 2 in IP
 - Transcoding MPEG 2 to MPEG 4
 - Video-On-Demand

Course Objectives: This course is designed to enable the participants upon completion to:

1. Understand the relationship between DVB standards and the satellite link
2. Understand the different hardware and software components of the DVB system
3. Understand how video, data, and messaging are carried in the DVB transport stream
4. Understand the evolution of DVB to carry IP data, stream video, and push data