

Boost your skills with



UDcast's DVB-H Training

*Register  
for DVB-H  
Training*



**UDcast**

FULL IP OVER BROADCAST MEDIA

## UDcast DVB-H Training

From the leader in the DVB-H IP Encapsulation, you will get a 2 day training on DVB-H theoretical and practical aspects.

The training is delivered at the UDcast Headquarters situated in Sophia-Antipolis, one of the leading technology parks in Europe, which is located on the French Riviera, 20 minutes drive from the Nice International Airport. This airport is reachable with all major Airlines, as well as with a substantial number of low-cost airlines directly from many cities in Europe.

Hotels are available in the technology park itself, as well as in nearby larger towns like Nice, Antibes or Cannes.

During the training you will have the opportunity to meet key UDcast people involved in the development of DVB-H, as well as the UDcast business people who are intimately familiar with the worldwide DVB-H landscape.

The training includes on-site lunch and refreshments. Training hours are approximately from 09:00 to 17:50 with a 1 hour lunch break.

## Training Pre-requisites

To fully benefit of this course, you should have a basic knowledge of TCP/IP.

## Course Outline

### Day 1 MORNING

#### ■ DVB-H overview (why and how)

- > History towards DVB-H standard
- > DVB-H standard novelties:
  - > Time Slicing and Power Saving
  - > MPE Forward Error Correction
  - > 4k mode and TPS bits
- > DVB-H challenges
- > Mobile TV technologies (DVB-H, T-DMB, MediaFlo, ISDB-T)
- > Differences Digital TV/Mobile TV
- > DVB-H chain building blocks
- > DVB-H deployment scenarios
- > DVB-H network architectures
- > Summary

# Course Outline

## Day 1 MORNING

### ■ DVB-T and DVB-H transmission system

- > Overview of a DVB-T Transmission System
- > Frequency Spectrum and Bandwidth
- > Coded Orthogonal Frequency Division Multiplexing
- > IFFT Inverse Fast Fourier Transform
- > Guard Interval
- > Doppler and Echo effects
- > Constellation and Hierarchy
- > Interleaving and Coding
- > OFDM Frame Structure, Pilot Carriers and TPS bits
- > DVB-H Specifics:
  - 4k mode
  - TPS Bits
  - n-depth Interleaver

### ■ DVB-H standard details

- > ISO/IEC 13818-1
  - Mpeg2 Transport Packets and Sections
  - Tables
- > ETSI DVB standard
  - Tables
  - MPE: MultiProtocol Encapsulation
- > ETSI DVB-H standard
  - Time-Slicing
  - Modifications to MPE header
  - MPE-FEC Error correction
- > Glossary
- > Documentation

## Day 1 AFTERNOON

### ■ Benefits of UDcast DVB-H solution

- > Product overview
- > Redundancy of IPE-10 & IPE-Manager: maximum reliability
- > IPE-Manager central appliance: Simple configuration of hundreds of IP Encapsulators
- > iSplicer: Flexible satellite content distribution
- > Analysis with the DVB-H Analyzer GOLDENEAGLE

# Course Outline

## Day 1 AFTERNOON

### ■ Benefits of UDcast DVB-H solution

- > Time slicing: Power savings
- > MPE FEC: Better handset reception and coverage
- > DVB-H subchannels: Mix different bandwidths
- > Statistical Multiplexing: Encoder independent implementation
- > Static and interleaved bursts: Robustness and performance
- > IPsec: Strong IP security
- > Loss-free handover: Handset mobility support
- > IPV4/ IPV6 support: Labs and fields compliant
- > Quality of Service and buffering: Data integrity preservation
- > Jitter configuration: Adaptation to DVB-T/H transmission chain
- > Dynamic Multicast routing: Secured IP network access
- > Dynamic content scheduling: Easy and centralized configuration
- > Dynamic generation SI/PSI tables: Easy DVB parameter configuration
- > Large-scale deployment and easy integration

## Day 2 MORNING

### ■ Configuring the UDcast system with the IPE-Manager

- > Fundamental concepts and definitions of the IPE-Manager
- > SNMP access to the IPE-Manager, Data Model
- > Initial Setup of IPE-Manager
- > Configuration of IPE-Manager device
- > Understanding the Workspace
- > Setup of DVB-H network infrastructure
- > Management of Sessions
- > Monitoring of Sessions

### ■ Hands-on part on complete DVB-H system

- > Setup of IPE-Manager and IPE-10 IP Encapsulator
- > Setup of Modulator
- > Setup of Stream Encoder
- > Setup of Electronic Service Guide
- > Reception of Stream on a DVB-H handset

# Course Outline

## Day 2 MORNING

### Configuration & troubleshooting of the UDcast IP Encapsulator

- > Introduction
- > Initial setup
- > Configuration of IPE-10
- > Understanding the Workspace
- > Setup of DVB-H network infrastructure
- > Management of Sessions
- > Monitoring of Sessions
- > Detailed configuration of IPE-10
- > Troubleshooting

## Day 2 AFTERNOON

### The UDcast iSplicer flexible satellite content filter for DVB-H networks

- > Reminder on distribution architectures
- > Challenges of centralized distribution
- > Regional Content
- > Addressable Advertising
- > Microcellular coverage
- > Delta-T calculation: Issues and Possible solutions
- > Distribution to Transmitter Issues
- > The MIP Protocol
- > UDcast iSplicer functional description
- > UDcast iSplicer configuration and operation

### Monitoring and analyzing with the DVB-H/T Analyzer GOLDENEAGLE

- > Setup of GOLDENEAGLE Analyzer
- > Configuring Monitoring and setup of Alarm Parameters
- > Visualising Error History
- > RF layer Monitoring (RF levels, constellation, Guard Interval)
- > MPEG2 TP layer analysis (PID distribution)
- > Expert Mode: SI/PSI and DVB-H parameter Analysis

### Hands-on

- > DVB-T/H Monitoring and analysis

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