DVB-S2X Training course

Description
This training course is dedicated to any attendee who expresses interest in learning more about DVB-S2 and DVB-S2X standards.
It is a great opportunity for every actor of the Digital TV ecosystem such as satellite operators (contribution, distribution, diffusion) and network operators, etc to get a general familiarity with technical concepts in a satellite transmission environment.
It is also the occasion to understand the new market requirements (HDTV improvements, UHD,...) and the solutions offered by DVB-S2X.

Courses objectives
This training course aims at providing basic theoretical and practical knowledge on the DVB-S2 and DVB-S2X systems and standards.
First of all, it provides a wide overview of DVB-S2 and DVB-S2X market segments and applications that would be addressed with these standards.
The key benefits of this course are: Understand DVB-S2 and DVB-S2X systems and architectures, describe their structure and modulation.
A focus on the additional technologies and features offered by the DVB-S2X will be made compared to the current DVB-S2 standard.

Trainer
The TEAMCAST training course is led by a technical expert, who is also a member of the TEAMCAST Customer Service Team. This gives delegates the opportunity to collect unique information about practical experiences concerning the implementation of the networks and their environment, using TEAMCAST products.

Duration
This training course usually lasts 1 day.

Number of attendees
For practical reason, a maximum of 5 people is recommended.

Organization
The training session can be located on your own premises or at TEAMCAST (in France).
DVB-S2X
Training course

Course content*

- **Market & Trends: From DVB-S2 to DVB-S2X**
  - DVB-S and DVB-S2 satellite standards story
  - DVB-S2X standard milestones
  - DVB-S2X use-cases, applications
  - DVB-S2X market key drivers: UHD, HDTV, DVB-S2X terminals, etc.
  - DVB-S2X Strengths, Weaknesses, Opportunities and Threats (SWOT Analysis)

- **DVB-S2 (EN302307 - part I)**
  - **DVB-S2 System and Architecture**
    - Overall architecture
    - Single Carrier/Multi-Carrier
    - Why Single Carrier for Satellite Transmission?
  - **DVB-S2 Technology**
    - Single Stream
    - Multi-stream management (Input Stream Identifier - ISI)
    - Input format: MPEG TS, GS, GSE
    - Bitrate management: padding, NPD, PCR restamping
    - Baseband Frame
    - DVB-S2 coding and interleaving
    - DVB-S2 framing structure
    - DVB-S2 digital modulation
    - Pilot patterns
    - DVB-S2 spectrum
    - DVB-S2 operating modes
    - Comparison with DVB-S2 and DVB-S
    - Performances (BER, C/N)

- **DVB-S2X (EN302307 - part II)**
  - **DVB-S2X System and Architecture**
    - Overall architecture
    - DVB-S2X, backward compatible with DVB-S2
  - **DVB-S2X Technology**
    - Bitrate (new constellation)
    - Granularity (new MODCOD)
    - Robustness (low C/N)
    - Signaling (wide-band)
    - RF efficiency (Roll-Off)
  - **DVB-S2X Pre-distortions**
    - Non-linear pre-distortions
    - Linear pre-distortions
    - Pre-correction tools to improve end-to-end satellite communication channel
  - **DVB-S2X Calculator**
    - Presentation of the calculator
    - Examples with typical use-cases
  - **TEAMCAST’s solution for DVB-S2X**
    - TEAMCAST’s position and strategy
    - Vyper, Modulator
    - Syper, Demodulator

* TeamCast keeps the right to make changes to adapt well the content of this

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**Prices & Conditions**

**Description**

- On-site training course:
  - 1-day training course: please contact our Sales Department
  - Excluding travel and accommodation costs
  - Price covers training documentation

- TEAMCAST in-house training (France)
  - Price: please contact TEAMCAST’s Sales Department
  - Price covers training documentation, lunch and coffee breaks
  - Participants are responsible for their own travel and accommodation costs

Specifications DVB is a registered trade mark of the DVB project.