



OPERATING FSP 3000 AgileConnect™ with ROADMS

**4 days *remote* technical training combined with
eLearning**



The Fiber Service Platform (FSP) is a family of products that provide comprehensive Optical + Ethernet networking solutions for access, metro core and regional networks. ADVA is focused on the needs of enterprise and service provider customers deploying data, storage, voice and video applications.

Course Description & Level

A training course on **ADVA FSP 3000R7 hardware**: Selected Active Channel Cards, Passive Filters, Optical Amplifiers and management modules. Including ROADMS and 100G cards. Installation specifics. Including Provisioning & Commissioning. Introduction to High Density Shelves.

In the *classroom* variant of this training (recommended) students will be guided setting up a working system step-by-step - from Point to Point, Multiplexed, Amplified and with ROADMS. ESD Instructions, fiber handling, fiber and port cleaning are also part of this class.

In the *remote* variant of this training we cover the hands-on parts via an eLearning module called *SmartHands* available on the ADVA eLearning platform (before the remote live training).

In the remote part the live trainer will share his screen while he is connected to the training equipment working with the GUI (NED). The equipment will be fibered already and the focus will be on exercises that can be done via the GUI.

Please note: the training will be provided using GoToTraining application – we will arrange a short test of the tool upfront the training – you will get invited for both – test and training session.

For the practical configuration exercises the trainer will hand over keyboard and mouse to one student at a time. This will require the desktop version of GoToTraining Client installed on the student's laptop.

Please note: recording of the remote training sessions is not permitted.

Level: Introductory

Audience and Benefits

- The class is aimed for beginners to WDM as well as experienced users who need to get familiar with ADVA FSP 3000R7 product.
- To achieve self-sufficiency at installation, configuration and maintenance of the FSP 3000 product including ROADMS
- Certificate of attendance; exam available (if applied for)
- Small group, 8 attendants maximum
- Training Material will be provided for download from ADVA ftp server

Agenda	THEORY	PRACTICE
	<ul style="list-style-type: none"> • System overview • Component overview • Optical system architectures 	<ul style="list-style-type: none"> • Working on a fibered system • Using GUI software NED • Implementing DCN



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| <ul style="list-style-type: none">• Supported topologies and protection mechanism• Management Concepts• DCN• Supported applications• ROADM applications• High Density Shelves | <ul style="list-style-type: none">• Balancing DWDM Network• Performance Monitoring• Online Power Measuring• Database Backup & Restore• Software/Firmware upgrade• Maintenance |
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Pre-requisites

Basic knowledge of WDM, OTN and TCP/IP is beneficial.

Students have completed the eLearning module *SmartHands* upfront the live remote training. They will be enrolled in time to the eLearning module and have access to this module after the remote training.

We will also enroll students to around 10 basic eLearning modules on WDM (each with a length of approximately 10 min). In case students are new to WDM, we expect them to complete the modules before attending the live remote training.

Contact

Training: training@adva.com



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Day 1 9 am-4 pm with breaks Lunch break:12am-1pm	Introduction, Course Overview, General Product Overview; Outlook to HD Shelves Management Concepts for FSP 3000R7 platform, Data Communication Network via OSC
Lab Exercises	Working on a running system <ul style="list-style-type: none">• Getting familiar with the training setup – Signal Flow Diagram• First Management Steps (CLI – short intro, WebGUI NED)• IP parameters for management over LAN/WAN• Managing Basic System Security/Managing User Accounts• FSP 3000R7 Shelf Extension (FSP 3000R7 Shelves only)• Commissioning equipment• DCN applications via Optical Supervisory Channel
Day 2 9 am-4 pm with breaks Lunch break: 12am-1pm	Provisioning concepts, Active Channel Cards, DCN via ECC, Passive Optical Filters
Lab Exercises	Review of previous day <ul style="list-style-type: none">• Auto-, Post- and Pre-Provisioning• Application of selected Active Channel Cards• Setting Software Loops for Troubleshooting• DCN applications via Embedded Communication Channel• Application of Passive Filter Structure
Day 3 9 am-4 pm with breaks Lunch break: 12am-1pm	Optical Amplifiers (EDFA, Raman) and Dispersion Compensation, 100G Active Channel Card; ROADMs
Lab Exercises	Review of previous day <ul style="list-style-type: none">• Application of selected Erbium-Doped Fiber Amplifier (EDFA) without Raman• Application of selected Active Channel Cards including 100G cards (typically 10TCE 100G card)• Application of selected ROADMs
Day 4 9 am-4 pm with breaks Lunch break: 12am-1pm	ROADMs, System and Database Management, Protection in Optical Networks
Lab Exercises	Review of previous day <ul style="list-style-type: none">• Proceed with ROADMs• System Database Backup and Restore• Software Upgrade; Firmware Update• NCU Exchange (Theory)• Collecting Support Data• Applications of selected protection scenarios



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Additional Information & Exercises throughout the course

- Following ESD rules (eLearning)
- Using Optical Power Meters, Optical Spectrum Analyzers and other Tools for M&T (if available) (eLearning)
- Using Built-In Tools & Documentation for Maintenance and Troubleshooting
- Managing Alarm Profiles and System Logs
- Finding Failures Using “Follow the Light” Procedure
- Using Loops for M&T
- HW&SW Troubleshooting Cases

Gathering Info for ADVA CTAC Service Teams