

Expert Knowledge

Glass Fiber Network Technology

The steadily growing need in transference range in communication systems has far exceeded the expectations of the past and has changed the demands for future net structures radically. The new technologies LWL which are installed today in the participant-access area (Access, e.g., FTTx) as well as in the Wide Area Network technology (Long Distance) correspond to these new demands. The seminar provides the topical state of the technology and an overview about the measuring methods in the different optical systems. Bases of the technology are as explained, as the innovative WAN technology. Finally measuring solutions for distribution networks in WDM technology, how CWDM in metro nets (Coarse Wavelength division Multiplexing) and DWDM in systems WAN (Dense Wavelength division Multiplexing) become discussed

Contents

- ▶ Physical bases of the light wave leader's technology
- ▶ Components of the LWL transfer technology
- ▶ Production and judgment of connecting technologies, like plug, splice (with practical demonstrations and illustrated material)
- ▶ Demands in the participant access area (e.g., FTTx)
- ▶ Realization of WAN and City Networks
- ▶ Glass fiber in HFC (CATV) network
- ▶ Glass fiber in LAN (structured network to EN50173)
- ▶ Laser protection classes, security aspects
- ▶ Measuring procedure in distances LWL and systems
- ▶ Installation assessment, introduction, decrease measurement
- ▶ OTDR-(back scatter) measurement technology for multimode and single mode fibers

Technology discussed

- ▶ Optical level and attenuation measurement
- ▶ Back scatter measuring technology (OTDR)
- ▶ Measurement of the Chromatic Dispersion (CD) and the Polarization Mode Dispersion (PMD)
- ▶ Measuring technology for WDM (DWDM) systems (optical spectrum analyzer OSA)

Trainer

- ▶ Sylvester Rademaker

Course objectives

The participants learn:

- ▶ How different Telecommunication technologies over fiber function and are able to precede measuring procedures
- ▶ On what to respect when planning and decrease fiber optic networks
- ▶ How components for fiber optic networks get properly handled

Target group

Assemblers, electricians, planners for optical network systems as well as engineers who carry out acceptance tests.

Prerequisites

Basic knowledge on fiber optic networks.

Related seminars

Basic training:

- ▶ The world of the telecommunications in the overview

Continuing:

- ▶ Technologies of new optical high speed nets – bit rates of 10G 40G / 100G on the basis of WDM, LWDM, DWDM and CWDM.

Product workshops:

- ▶ Optical handheld tester (OFI, OLA, OLC, OLP, OLS, OLT) Workshop
- ▶ MTS-xxx OTDR Workshop,
- ▶ FiberTrace / FiberCable Workshop

Seminar info

- ▶ Duration
2 days, from 9.00 to 16.30 h
- ▶ Date, location and price on request or see under www.viavisolutions.com
- ▶ On-site or customized seminars and E-Learning on request

Contact

Fax +49 7121 86 2145
Tel +49 7121 86 1657

seminars.europe@viavisolutions.com