

Microwave link: Evolution von der E1 bis 10G für 5G

The training covers theoretical basics about waves/frequency, bands and current developments. Data- and connection- handling is discussed in detail for all transport modes; SDH cross connect, switching, latency-optimized L3 routing for 5G as well as multiband antennas, 20G over the air.

Target group

The training is designed for technical staff, project manager and planner, who need technical background information about microwave links. Basic knowledge about data and mobile networks is recommended.

It is possible to analyze high level network designs within the training.

Content

Introduction microwave link

- Use cases, definition, evolution, PtP, PtMP
- Adaptive modulation, development of frequency bands
- Relationship between channel spread, modulation and data rate
- Protection mechanisms
- Dual-band, multiband, carrier aggregation, E-Band, XPIC, MIMO, CCIC

Microwave link and data

- Historical overview
- CrossConnect, SNCP
- Mobile networks as driver for microwave link development
- Data rate demand based on Mobile Network demand
- Hybrid networks with flexible data rates
- 5G-Topology and microwave links
- Fronthaul vs. backhaul
- Technical integration
- Microwave links as interconnect between router and DWDM
- Link status in Service Defined Networks

Microwave link and 5G

- Consequences of mMTC, uRLLC and eMBB for microwave links
- Latency sub 3ms
- Synchronization
- Intelligent OAM
- Slicing and differentiated SLAs
- Exponential data rate growth
- Development towards mashed networks
- Flexible frequency plan: C-Band and mmWave
- Competition between optical fiber and microwave link

Duration:

2 days

Course number:

N1011

Requirements:

Basics about data and mobile networks

Certification

Certificates are given to all participants at the end of the course about the successful completion.

Kursanmeldung:

Bitte kontaktieren Sie uns

- per Telefon: +49 89 1894354-405
- per eMail: training@tfk.de oder
- über unsere Internet-Seite www.tfk.de/training

Sie erhalten von uns umgehend eine Bestätigung Ihrer Anmeldung oder können sich bei der Zusammenstellung der Kursinhalte beraten lassen.

Gern erstellen wir gemeinsam mit Ihnen ein Kurskonzept, das sich speziell an Ihren Anforderungen orientiert. Sie können verschiedene Themengebiete aus unseren Standard-Kursinhalten kombinieren und an Ihre firmenspezifischen Gegebenheiten anpassen lassen.