

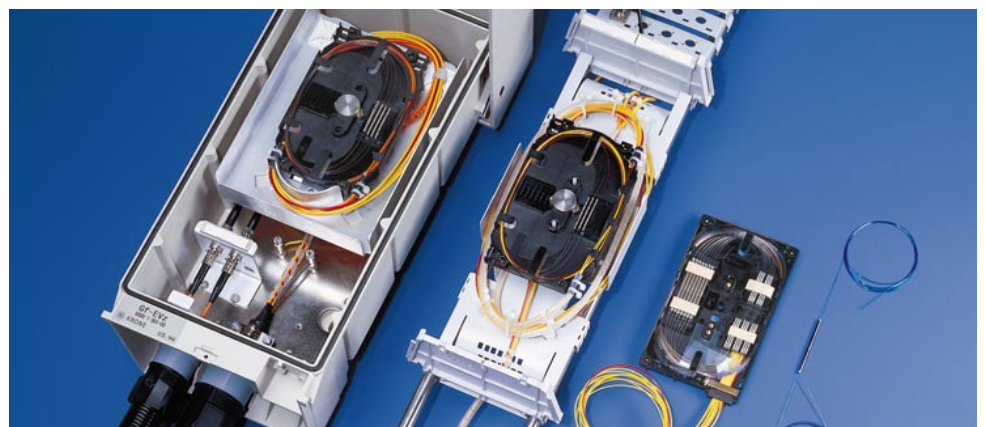
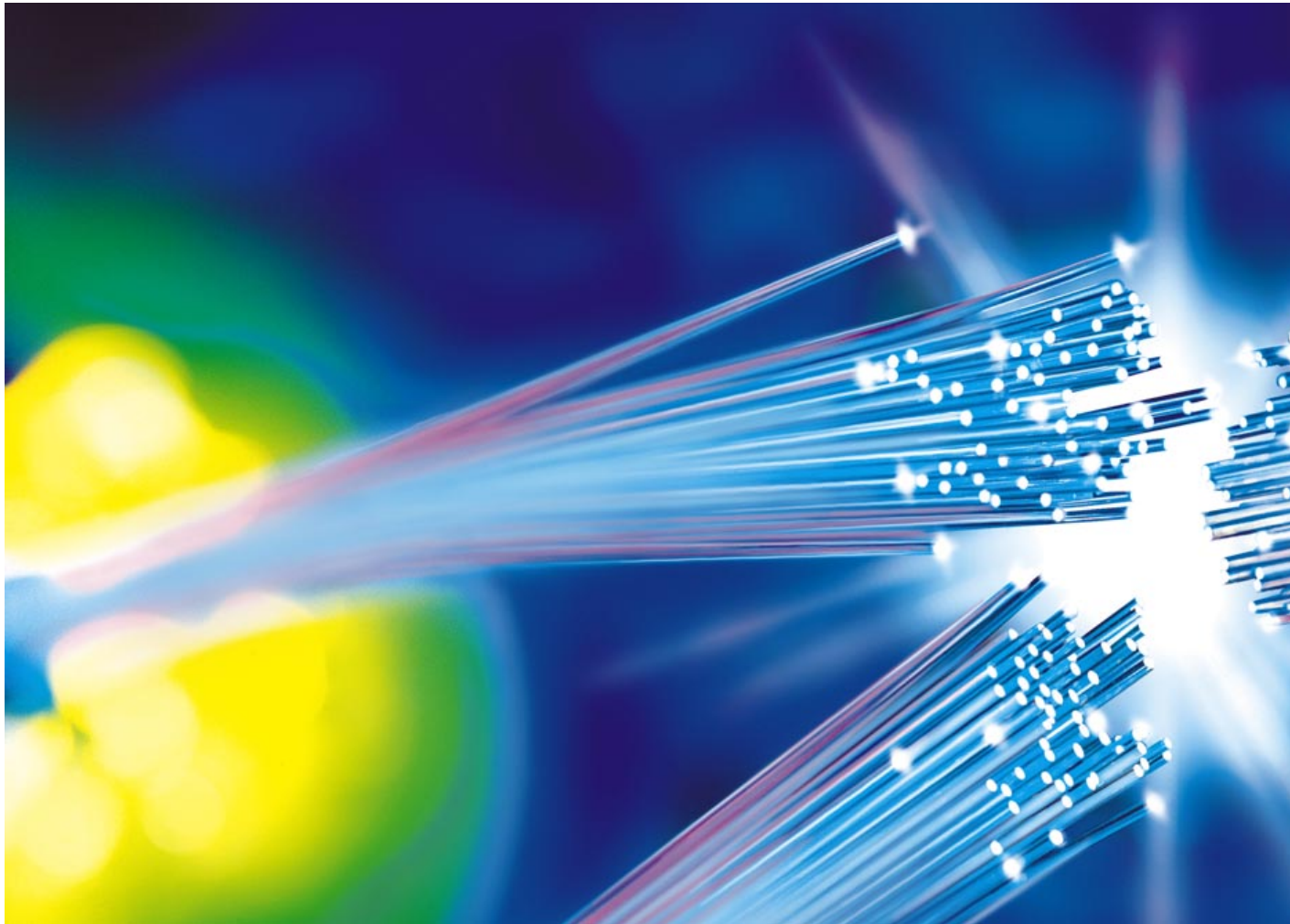
Expert Knowledge



15.0

Fibre Optic Excellence from KRONE

Overview





Overview

Fibre optic connection systems are becoming more and more important in conjunction with the development of advanced telecommunication networks. There is an ongoing trend towards wider transmission bandwidths and longer ranges, no matter whether public network providers - such as German Telekom -, universities or public utility companies are concerned.

The history of modern optical telecommunications started in the 1960s with the invention of the optical fibre and modulated semiconductor laser diodes. Improved optical fibres were developed in the course of time, with losses falling from an initial 20dB/km to 0.2dB/km today. Similar advances in semiconductor electronics increased transmission capacities, so that more than 30,000 telephone calls can be handled by a single fibre today.

Starting in 1983, fibre optic networks were established by the then Deutsche Bundespost for long-distance and local applications. Since 1990, however, optical fibres have also been laid to the subscribers' homes ("fibre to the home") within the framework of the so-called OPAL projects in the new east German states. But also private users (computer centres, banks, etc.) increasingly rely on optical data transmission for short-range connections and local networks.

Contents of this chapter

- 15.0 **Overview**
- 15.1 **Configuration of a fibre optic transmission system**
 - Optical fibres
 - Transmission principle / transmitter and receiver
- 15.2 **Fibre optic distributors**
 - FO main distribution frames
 - FO cross connection cabinets
 - FO terminating distributors
- 15.3 **Fibre optic components**
 - FO connectors
 - Principle of operation
 - Insertion and return loss
 - Surface types
 - Overview of plug connector systems
 - SC plug connectors
 - FC plug connectors
 - DIN plug connectors
 - E2000 plug connectors
 - ST plug connectors
 - FDDI plug connectors
 - FO couplers
 - Technology
 - Couplers
 - Coupler modules
 - KRONOLITH
 - Wavelength multiplexers
 - Attenuation modules

