

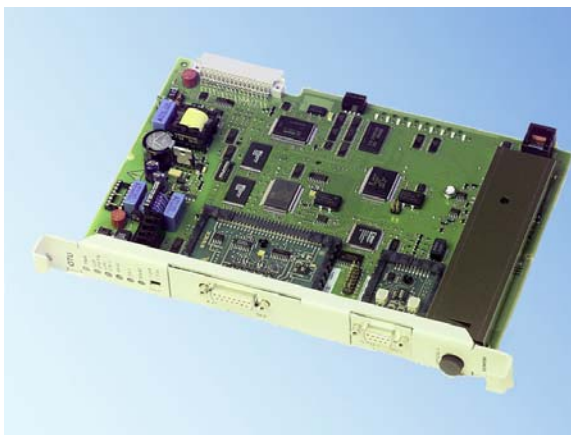
# Network Termination Unit OTU

## Product Overview

Optical Termination Units (OTU) are used for optical 2 Mbit/s transmission. The transmission is based on the Time Compression Multiplex (TCM) technique and it uses one single monomode optical fiber. The unit can be used both in the ULAF+ subrack (as plug-in) and in the desktop case.

## Time Compression Multiplex

The digital signals in both directions are transmitted via one single optical fiber (monomode optical fiber) using the TCM technology. The 2 Mbit/s signals are therefore transmitted alternately in both directions.



The timing for the signals to be transmitted in the two directions can be either synchronous or plesiochronous, i.e. the signals can be generated from a separate clock source.

The properties of the electrical 2 Mbit/s interfaces conform to ITU-T G.703 for HDB3-encoded signals. Single-fiber transmission is at an operating light wavelength of approx. 1300 nm. The ageing, temperature and reserve capacity are also taken into account.

To prevent personal injury, the 2 Mbit/s line equipment is equipped with an automatic laser shutdown device.

**ULAF+**

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## Interface modules and submodules

### Modules for the 2 Mbit/s interface

- RJ45 connector (120 W)
- Sub-D 9-pin connector (120 W)
- Coax BNC connector (75 W)
- Coax 1.6/5.6 connector (75W )

### Modules for the data interface

- 10baseT Advanced bridge module
- 10baseT Advanced bridge and router module
- X.21 Sub-D 15-pin connector
- V.35 ISO 2593 connector
- V.35 Sub-D 25-pin connector
- V.36 Sub-D 37-pin connector

### Module for the clock and alarm interface

ULAF+ modules allow to derive the system clock source. In addition the prioritized alarms are forwarded via two floating alarm contacts. These functions can be optionally added by means of a module for the desktop unit. Both functions are available in the standard subrack.

## Technical data

Input voltage  
Plug-in version .....40 V<sub>DC</sub> to 72 V<sub>DC</sub>  
Desktop version .....40 V<sub>DC</sub> to 72 V<sub>DC</sub>  
.....95 V<sub>AC</sub> to 260 V<sub>AC</sub>  
Power consumption (typical) .....< 4.5 W

Dimensions  
Plug-in version .....Double Eurocard size  
Desktop version (W x H x D) ...272 x 47,5 175 mm

Line access .....1 monomode optical fiber  
Transmission procedure .....TCM

Nominal light wavelength .....1300 nm  
Section attenuation (1300 nm) .....≤ 12 dB  
Min. permissible attenuation .....0 dB  
Fibre type .....Single mode 10/125 μm  
Optical connector .....FC/PC

Burst cycle .....2 kHz  
Burst length .....1216 ±4 Bit  
Payload data bits/burst .....1024 ±4 Bit  
Symbol rate .....8192 kBaud  
Line code .....Binary, scrambled  
Pulse shape .....rectangular, NRZ  
Max. range .....18 km

Environmental conditions  
Temperature (in operation) .....-5° – +55° C  
.....at 5 – 95% rel. humidity

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