

## 1531 FL Fibre Optical Line System

... for provision of 16 x 2 Mbit/s  
wide-band services connection.



### Introduction

The demand for increased bandwidth in the Access network calls for deployment of optical fibre cables suited for BISDN services. The investment of fibre should be justified by line systems with  $n \times 2$  Mbit/s capacity for support of current wideband services.

The 1531 FL is a 16 x 2 Mbit/s fibre optical line system, especially designed for use in the subscriber networks.

The equipment includes ISDN terminating functions and data interface X.21.

At the exchange and subscriber premises the terminals are housed in a 19"/ETSI 3 U high metal case (CPE).

### Applications

- ISDN Primary Rate Access sections (LT and NT) according to ETSI standards.
- Access sections for leased lines either with transparent transfer or with processing related to ITU-T Rec. G.704 transmission format.
- LAN connection with integrated X.21 data interface. Individual configuration of each of the 16 x 2 Mbit/s interfaces.
- Tail sections to remote multiplexers/concentrators.
- Possibility to have 34 Mbit/s aggregate signal.

### Upgrade

SW download which can upgrade the local and remote unit from the exchange side.

### Features

1531 FL supports several CRC-4 configurations.

AUX channels in optical signal. Two 704 kbit/s oversampled data channels (ITU-T Rec. V.11) with adaptation for remote access to a Q2 bus (acc. To ITU-T Rec. G.773).

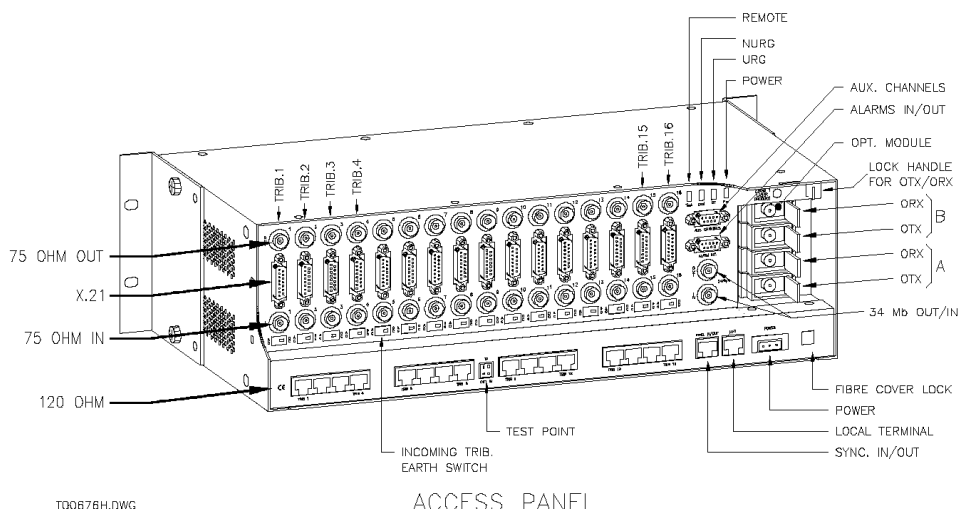
Two fibre Single Mode (SM) transmission at 1300 nm.

### Supervision

Local and remote alarm indications and alarm outputs.

Quality and alarm information for local and remote 1531 FL terminal is collected and processed in the local terminal.

Configuration software for installation on a PC is available.



2 Mbit/s electrical interfaces	Bit rate: 2048 kbit/s + 50 ppm Line code: HDB3 Impedance: 120 Ω / 75 Ω Jitter performance according to ITU-T Rec. G.823 and G.921
X.21 data interface	n selectable from 1 to 32 Sync. input available Remote loop according to V.54 C bit can be enabled/disabled for n = 1 to 31
Optical Interface	Transmitter: Laser diode Laser (SM): 1270 - 1340 nm Nom. power: -10 dBm Modulation: 51.552 Mbaud (6B8B code) Receiver: PIN diode with transimp. amplifier Input range: 8 dBm to -34 dBm (BER < 1.10 <sup>10</sup> at point R) Transmission line: Single Mode fibre according to ITU-T Rec. G.652 Multi Mode fibre according to ITU-T Rec. G.651 Optical connectors: FC/PC
Optical Line Requirements	1310 nm: Two SM fibres (ITU-T Rec. G652) Max. loss 22 dB. Approx. 45 km
Basic Operational Modes	PRA: According to ETS 300 23 G.704: CRC-4 processing by NT Transparent: Format independent transfer
Power	Supply voltage: -40 to -72 VDC Power consumption: < 16.0 W
Environment	Climatic and mechanical conditions: In use: ETS 300 019, Class 3.2 Transportation: ETS 300 019, Class 2.3 Storage: ETS 300 019, Class 1.2 EMC: EN 55022 and EN55024 Over-voltage protection: ETS 300 046
Mechanical Characteristics	133 x 230 x 432 mm
Optional	AC/DC converter for CPE, with optional back-up batteries
Supplier	Quante Netzwerke GmbH Ahrensburger Straße 8 D-30659 Hannover Tel: +49 (0)511/74 01 92-0 Fax: +49 (0)511/74 01 92-100 Internet: www.quante-netzwerke.de