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FiberKom mini-optical node equipped with Return Path transmitter and OLC technology (1 fiber) 1550 nm, Return: 1610 nm, Po 3 dBm

Mini-optical node to act as a bridge between coaxial technology and optical networks. Transforms the optical signal (1550 nm) on the main network into a coaxial signal (105 MHz-1220 MHz) that travels to the user's modem.

It also transforms the coaxial modem's signal (5 MHz-85 MHz) into an optical signal for the operator's headend, thanks to the the Return Path transmitter on the 1610 nm window with 3 dBm optical power.

Uses a single fiber for both the forward and the Return Paths.

Perfect for installations where the DOCSIS protocol is used for the bidirectional distribution of data, and the DVB-C standard is used for television signals.

Equipped with OLC technology.

Perfect for RF Overlay, FTTB, and FTTH applications.

Ref.238005

| | |
|--------|---------------|
| Art.Nr | OMNRK1610N |
| EAN13 | 8424450177907 |

Highlights

- The OLC (Optical Level Control) technology automatically adjusts the parameters to achieve a constant output level, irrespective of the channel load
- Equipped with attenuation controls
- High output voltage (RF amplification) and enhanced C/N
- Very low power consumption

Main features

- DOCSIS compatible
- Two operation modes:

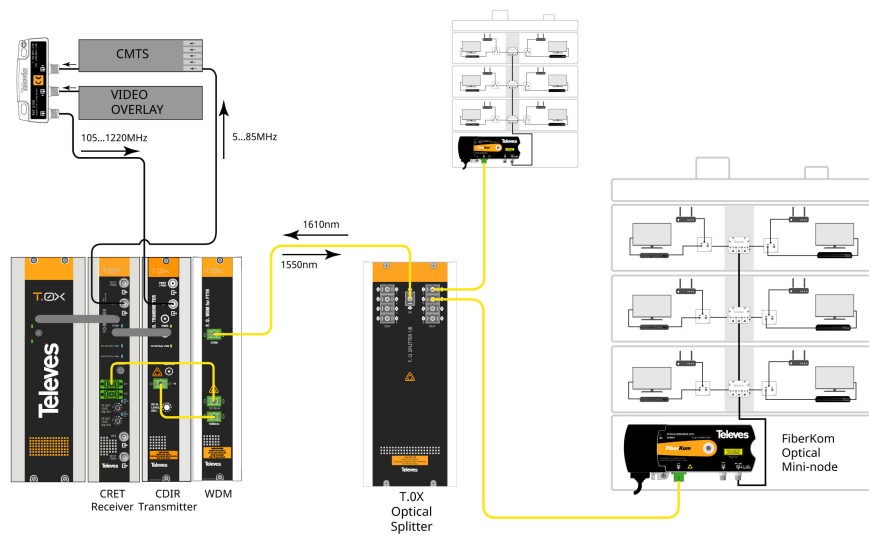
1. CW (Continuous Wave) in which the laser transmits continuously; useful in applications where the Return Path is attenuated (FTTB).

2. RFoG (RF over Glass) where the laser only transmits when there are packets to be transmitted; it is therefore recommended for installations with minimal attenuation on the Return Path (FTTH).

- SC/APC optical connectors, and F-type connectors for RF
- Either local or remote powering via the output F connector

Application example

(Click to see the picture)



FTTB application with a single fibre.

Technical specifications

| | | |
|---|--------|-----------------------|
| Forward path | | |
| Frequency range | MHz | 105 ... 1220 |
| Output impedance | Ohm | 75 |
| Optical input level for OLC | dBm | -8 ... +1dBm |
| Flatness | dB | ± 1 |
| Number of outputs | no. | 1 |
| Typical output level in OLC range | dBµV | 93 |
| CNR | dB | >52 |
| CSO | dB | >60 |
| CTB | dB | >60 |
| Equivalent noise current density at input | pA/ Hz | < 6 |
| Forward path attenuator | dB | 6/12 select. |
| Pre-emphasis | dB | 3 |
| Wavelength | nm | 1540 ... 1560 |
| Optical return loss | dB | >40 |
| Optical connector | type | SC/APC |
| Max. optical input power before damage | dBm | 2 |
| Optical device | type | InGaAs pin photodiode |
| Return path | | |
| Frequency range (selectable) | MHz | 5 ... 85 |
| Input impedance | Ohm | 75 |
| Optical output level | dBm | 3 |
| Flatness | dB | ± 1 |
| RF input level | dBµV | 70...100 |
| Return path attenuator | dB | 0/10/20 select. |
| Wavelength | nm | 1610 ±10 |
| Optical connector | type | SC/APC |
| Laser type | type | DFB (Class1M) |
| Transmitter turn-on/off time | µs | 1 |
| General | | |
| Local mains voltage | V~/mA | 99 / 75 ... 253 / 40 |
| Max. mains power | W | 4 |
| Power voltage through RF connector | Vdc/mA | 11 / 270 24/ 140 |
| Test point | dB | -30 ±1 |
| RF connectors | type | F |
| Housing material | | Zamak/ABS |
| Operating temperature | °C | -5 +45 |
| Index operation | IP | 30 |
| EMC compatibility | | EN 50083-2 |
| Safety | | EN 60825-1_2007 |