FiberKom

PRODUCT LAUNCH **MARCH 2015**

OPTICAL MININODES WITH OLC *(Optical Level Control)*

RFoG SOLUTION FOR DOCSIS SYSTEMS OPERATORS

Made in EU

OLC DOCSIS 3.0

Nowadays, cable operators are adapting their installations to distribute services using fibre optics.

These installations use DOCSIS protocols to provide bidirectional distribution of the data, and DVB-C to transmit television signals.

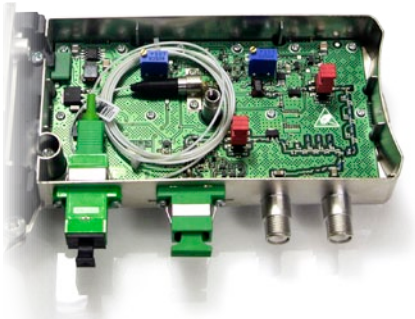
Televes' optical mininodes operate as a bridge between the former coaxial and the new optical networks, translating the optical signals from the backbone to RF signals to be transmitted over coaxial up to the user's modem and the other way around.

Our range of FiberKom includes units which operate in different return channel bands and/ or modules that comprise one or two fibres: the choice of the unit will depend on the operator's requirements.

REF.	DESCRIPTIÓN	EAN 13
238001	MININODE F.O. FIBERKOM CATV OLC (2 FIBRES)	8424450170793
238003	MININODE F.O. FIBERKOM CATV OLC (1 FIBRE)	8424450175767
238004	MININODE F.O. FIBERKOM CATV OLC (1 FIBRE) D3.0	8424450175774

HIGHLIGHTS

- **Incorporate an Optical Level Control** (OLC) that automatically regulates all the settings to achieve a consistent output signal level, regardless the channel load.
- Remote-powered RF output.
- **93dBµV signal level,** 42 CENELEC channels (CSO, CTB>60dB)
- **Low consumption** (4W)



CARACTERÍSTICAS PRINCIPALES

Ideal for **FTTB/FTTH** applications.

Ref. 238003 and 238004 use a **single fibre** for both the forward path channel (1240...1560nm) and the return channel (1610nm).

High quality DBF laser (Class 1M) in both channels.

Two operating modes:

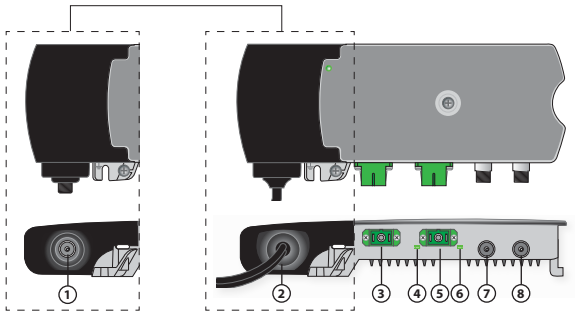
1. **CW** (Continuous Wave). The laser is transmitting continuously. Useful in those applications where the return channel suffer high attenuation (FTTB).
2. **RFoG** (RF over Glass), where the laser only operates when there are packets to be transmitted.
   Useful in applications where it's hardly any attenuation (FTTH).

They feature different ways of powering: 238001 and 238003 can be powered through the mains with its own embedded PSU. Ref 238003 can be remotely powered through its "F" output connector. Ref. 238004 can be powered either through mains and an external PSU or remotely through its "F" connector.

TECHNICAL SPECIFICATIONS

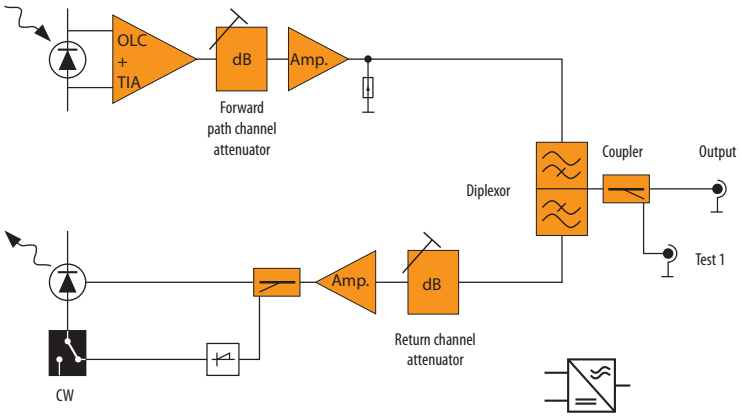
		238001	238003	238004
Forward path channel				
Bandwidth	MHz	87 ... 1006		105...1006
OLC input level	dBm	--8 ... +1		
Flatness	dB	± 1		
Outputs		1		
Output level 42ch CENELEC	dBµV	93		
CNR/CSO/CTB	dB	>52/>60/>60		
Selectable attenuator	dB	6/12		
Preattenuator	dB	3		
Equalizer (Forward Slope)	dB	4/9		
Wavelength	nm	1200 - 1600	1540 - 1560	
Input maximum level	dBm	2		
Return channel				
Selectable bandwitdth	MHz	5 - 65		5 - 85
Optical output level	dBm	3		
Flatness	dB	± 1		
Output RF level	dBµV	75 ... 100		
Wavelength	nm	1310 ±20	1610 ±10	
Laser type		DFB (Class 1M)		
Switching time ON/OFF	µs	1		
General				
Mains power	V~/mA	99 - 253/75		--
Alternate current consumption	W	4		--
Dimensions	mm	185 x 80 x 35		
Power through F connector (remote)	Vdc/mA	--	11/270 ...24/140	
Weight	g	400		
Ingress Protection	IP	30		
EMC Compatibility		EN 50083-2		
Security		EN 60825-1_2007		

DESCRIPTION AND BLOCK DIAGRAMS



Ref.	238001	238003	238004
1	--		Powering (11...24Vdc)
2	Mains power		--
3	Optical output 1310nm	Optical output 1610nm/ Optical input 1540...1560nm	
4	Laser indicator ON		
5	Optical input 1200...1600nm	--	
6	Indicador Nivel óptico (OLC)		
7	TEST RF (-30dB) output		
8	RF Input/Output	RF Input/Output + Powering (11...24Vdc)	

Forward path receiver

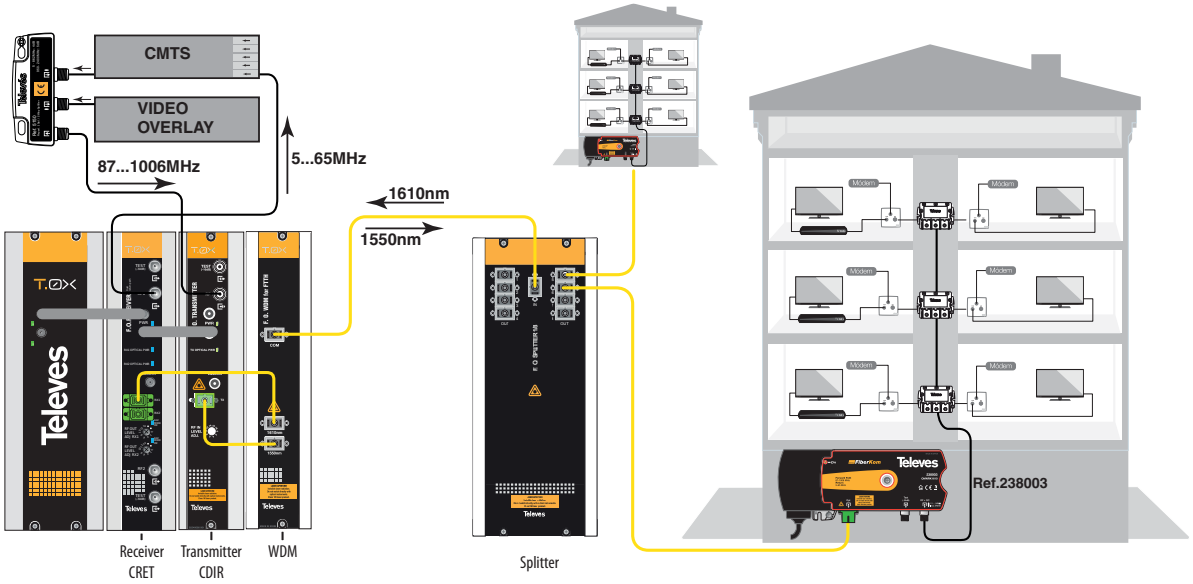


Return channel transmitter

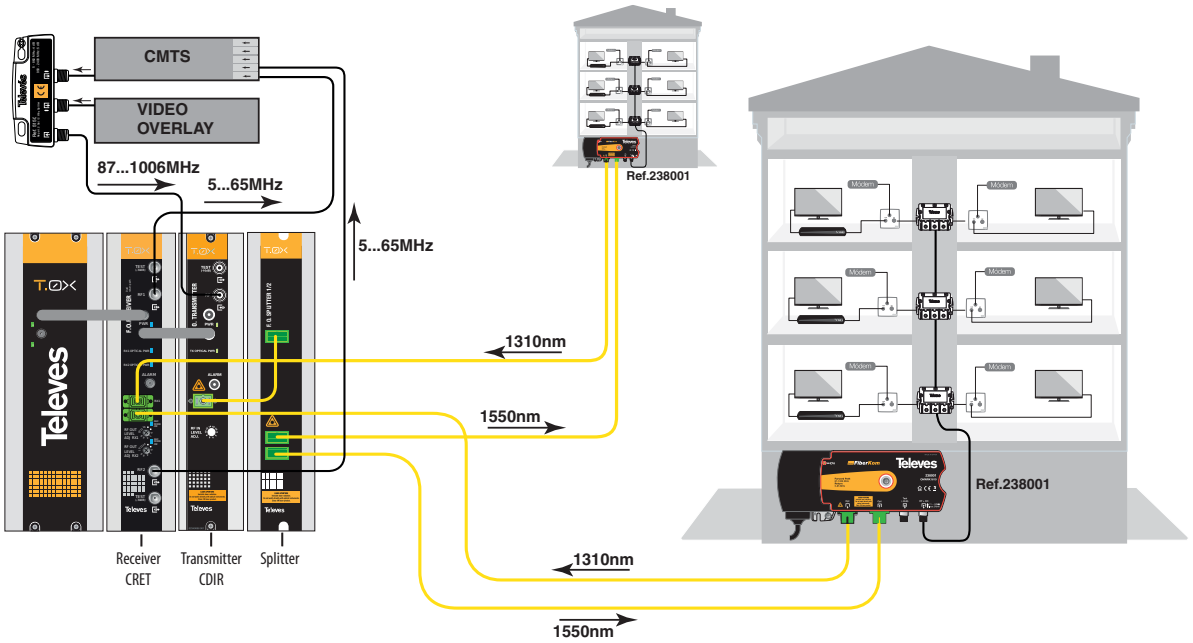
Models, usage and operation of the mininodes depend on the operator system's characteristics.
Layouts below are examples of application for specitific scenarios.

APPLICATION EXAMPLE

FTTB APPLICATION WITH A SINGLE FIBRE



FTTB APPLICATION WITH TWO FIBRES



APPLICATION EXAMPLE

FTTH APPLICATION