

OPTICAL NODE AND RECEIVER FOR HYBRID FIBER COAX (HFC) OPERATORS

OUTDOOR OPTICAL NODE AND RECEIVER
REF. 231082 AND 231282



- Constant output level with OLC
- Signal adjustments with fixed values
- Aluminium chassis
- Energy-efficient



OPTICAL
LEVEL
CONTROL



ALUMINIUM
CHASSIS



OUTDOORS



EFFICIENT
ENERGY
CONSUMPTION



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Televés®

OUTDOOR OPTICAL NODE AND RECEIVER

DESCRIPTION

The coaxial backbones of the operator networks are being replaced with optical fiber lines. The optical network ends where the subscriber's coaxial network is serviced. These networks that use both transmission media are known as **HFC networks (Hybrid Fiber Coaxial)**.

A device is required to work as an **interface between the optical backbone and the coaxial network** where both media meet; this device is the **Optical Node**.

This device transforms the downstream optical signal into a radio-frequency signal; furthermore, it transforms the radio-frequency signal produced by the cable-modem and/or the user's STB (return channel) into an upstream optical signal.

Occasionally, when communication is exclusively downstream, an optical receiver is installed instead of the optical node to transform optical signals into radio-frequency signals.

Optical nodes and receivers from Televes include **OLC (Optical Level Control)**, a system capable of **preserving the radio-frequency signal regardless of the optical input power**.

HIGHLIGHTS

- Equipped with **OLC (Optical Level Control)**, which automatically regulates its parameters to provide a constant output level regardless of the channel load
- **Configurable return channel** with attenuator and equalizer
- **Forward channel with independent attenuation and equalization adjustment** between stages
- **High output voltage**, low power consumption



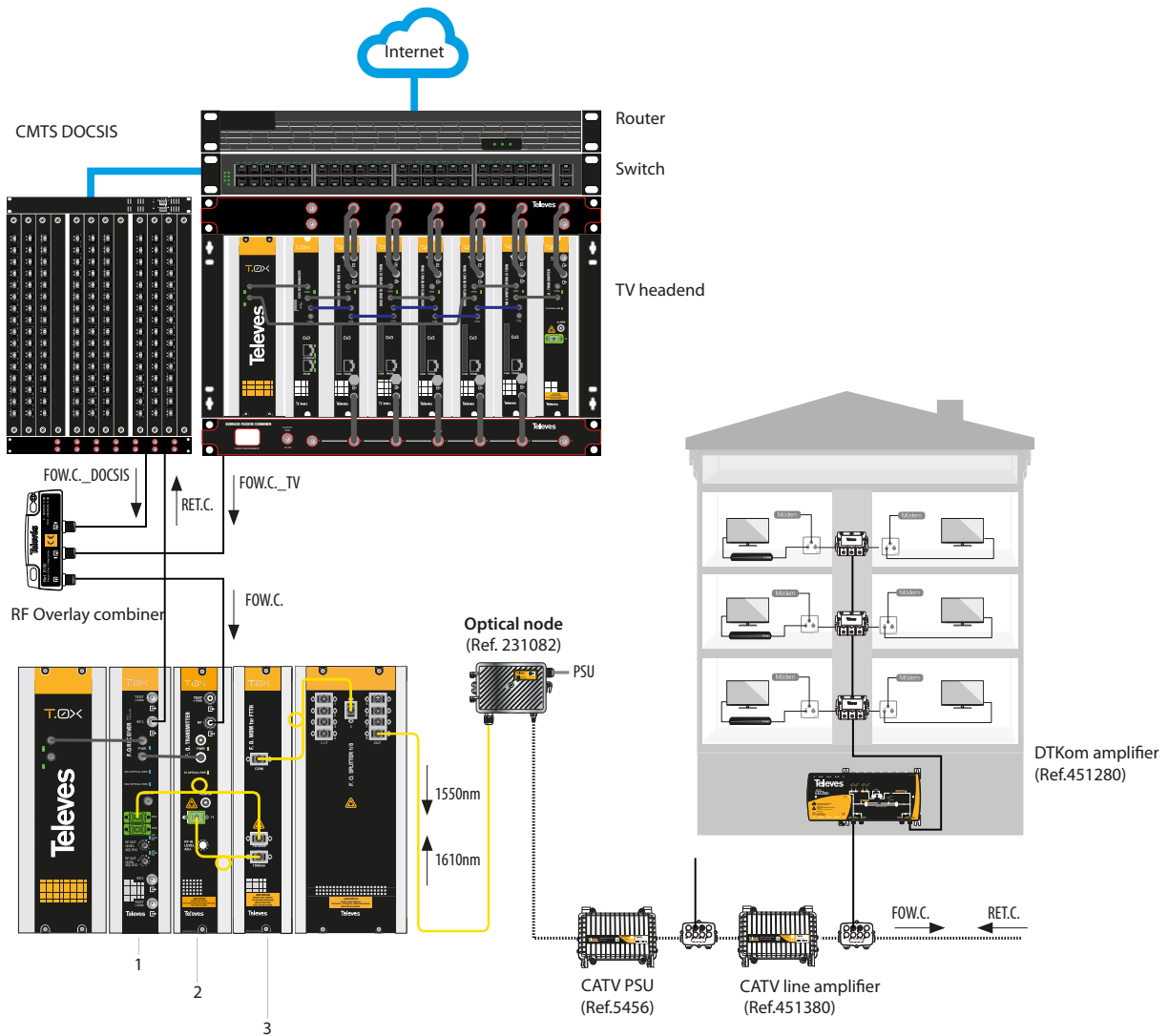
MAIN FEATURES

- Perfect for RF Overlay, FTTx applications
- Parameter values are adjusted using plug-in jumpers included (equalization, attenuation, etc.)
- Test port
- Full bandwidth optical reception
- Aluminium chassis ensures durability in outdoor installations

REF.	DESCRIPTION	EAN 13
231082	OUTDOOR NODE CATV OLC W/RET 1610nm LOCAL	8424450182833
231282	OUTDOOR F.O. RX MATV OLC W/O RET.P LOCAL	8424450188842

HFC NETWORKS WITH OPTICAL NODE

HFC network in which the optical node is the media converter between a DOCSIS headend and the CPE. The forward channel is 1550nm and the return channel is 1610nm.



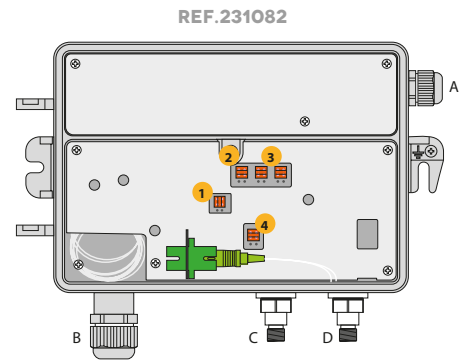
- 1 T.OX RX.F.O. RET TWIN 1270...1650nm CAG (Ref.234901)
- 2 T.OX TX.F.O. 1550nm 10dBm (Ref.234811)
- 3 T.OX WDM F.O. RFoG (1610nm)-(1550nm) (Ref.234702)

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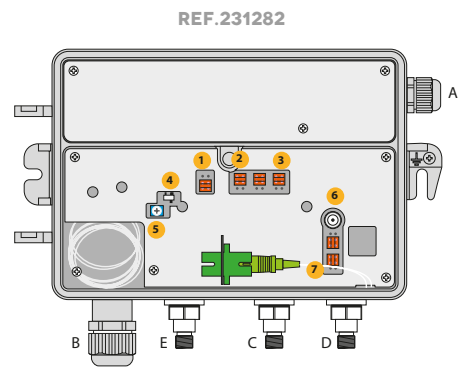
TECHNICAL SPECIFICATIONS

Refs.	231082	231282
FORWARD PATH		
Bandwidth	MHz	54 ... 1006
Optical input level for OLC	dBm	-8 ... +1
Flatness	dB	± 0.75
Outputs (selectable)		1 1 or 2
Output level with OLC enabled, output 1	dBmV	53
CNR/CSO/CTB	dB	>52/>60/>60
Input enhancer	dB	4/6
Output attenuator	dB	1/2/3/4/5/6/7/8
Equalizer	dB	4/9
Wavelength	nm	1200 - 1600
RETURN PATH		
Bandwidth	MHz	5 - 42
Optical output level	dBm	3
Flatness	dB	± 1
RF output level	dBmV	10 ... 40
Wavelength	nm	1610
GENERAL		
Local mode supply voltage	V~	99 - 253
Maximum power consumption with local or remote power supply	W	16.5
Max. current consumption with local power supply	mA	300
Dimensions	in	9.13x 3.54 x 5.51
Weight	lb	4.02
IP protection index	IP	65

DESCRIPTION

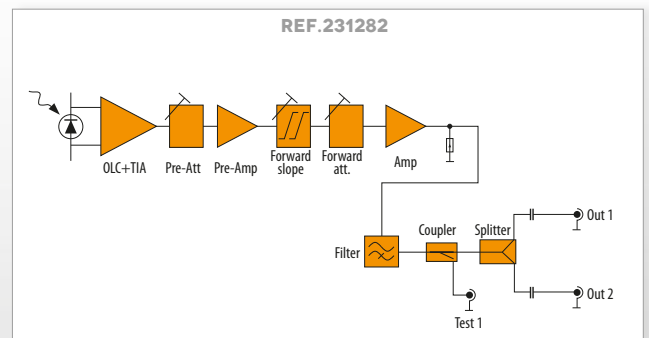
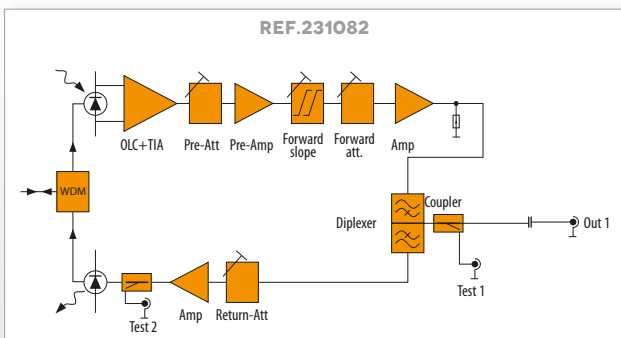


- 1 Enhancer
- 2 Equalizer
- 3 Forward channel attenuator
- 4 Return channel attenuator
- A Power supply
- B Optical fiber input
- C Test port
- D RF1 Input/Output



- 1 Enhancer
- 2 Equalizer
- 3 Forward channel attenuator
- 4 OLC switch
- 5 Manual gain control for OLC = MANUAL
- 6 Test port
- 7 1 output / 2 outputs selection
- A Power supply
- B Optical fiber input
- C RF2 Input/Output
- D RF1 Input/Output
- E N/C

BLOCK DIAGRAM



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