

Fibre optic receiver for FTTB networks

If you are looking for a unidirectional, compact size fibre optic receiver with impressive performance and reliability, we would like to introduce the CXE810, a higher output level successor of our CXE800 receiver. The newcomer CXE810 fibre receiver responds to the market demands as a low-cost and easy-to install solution together with high output level performance for FTTB networks. Wherever cost efficiency and easy installation are prime concerns, the CXE810 is your answer.



Simplicity and enviable performance

Our extensive experience and know-how in broadband amplifiers and fibre optics combined with the latest technology make it possible for us to bring broadband operators the best choice for economical and reliable fibre optic receivers. The new CXE810 fibre optic receiver meets your requirements for the cost effective implementation of deep fibre architecture.

The CXE810 fibre optic receiver is a higher output level successor of our CXE800 receiver, presenting a perfect solution for cable operators who want to utilise a cost effective choice for construction of modern deep fibre solutions. It is designed with the simplicity of implementation specifically in mind.

The CXE810 fibre optic receiver features a reliable power supply, an integrated optical receiver, a high-performance GaAs amplifier stage and it supports 1 GHz frequency range. The use of an integrated optical receiver, which accepts both 1310 nm and 1550 nm wavelength inputs, eliminates time-consuming mounting of connectors and fibre splicing inside the housing. The advantage of this is clear.

The local user interface allows confident and easy operation. An optical power DC test point together with the optical received power LED enable you to quickly determine the status of the receiver. Automatic Optical Level Control (OLC), gain and slope adjustments use electrical controls, thus eliminating the need for the usual plug-in attenuators in system set-up. Electrical controls use field-proven robust control circuitry along with efficient algorithmic rules to provide as high level of repeatability and reliability as software-based systems.

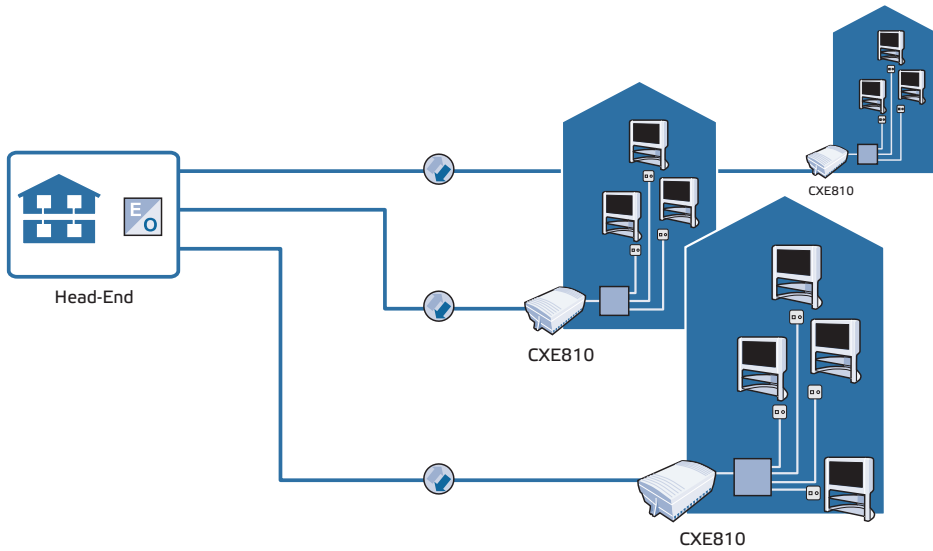
The CXE810 fibre optic receiver displays a high performance design with low noise current density and a very high output level. A 20 dB test point enables measurements of RF output level. The CXE810 features one active output which can be split easily in the field within a matter of minutes, and a full range of taps/splitters are available. A choice of one or two outputs enhances the CXE810's flexibility, and efficient ESD and Surge protection further its dependability.

Integrated optical receiver

LED indicator and DC test point for optical input power are easily accessible for quick and convenient monitoring.

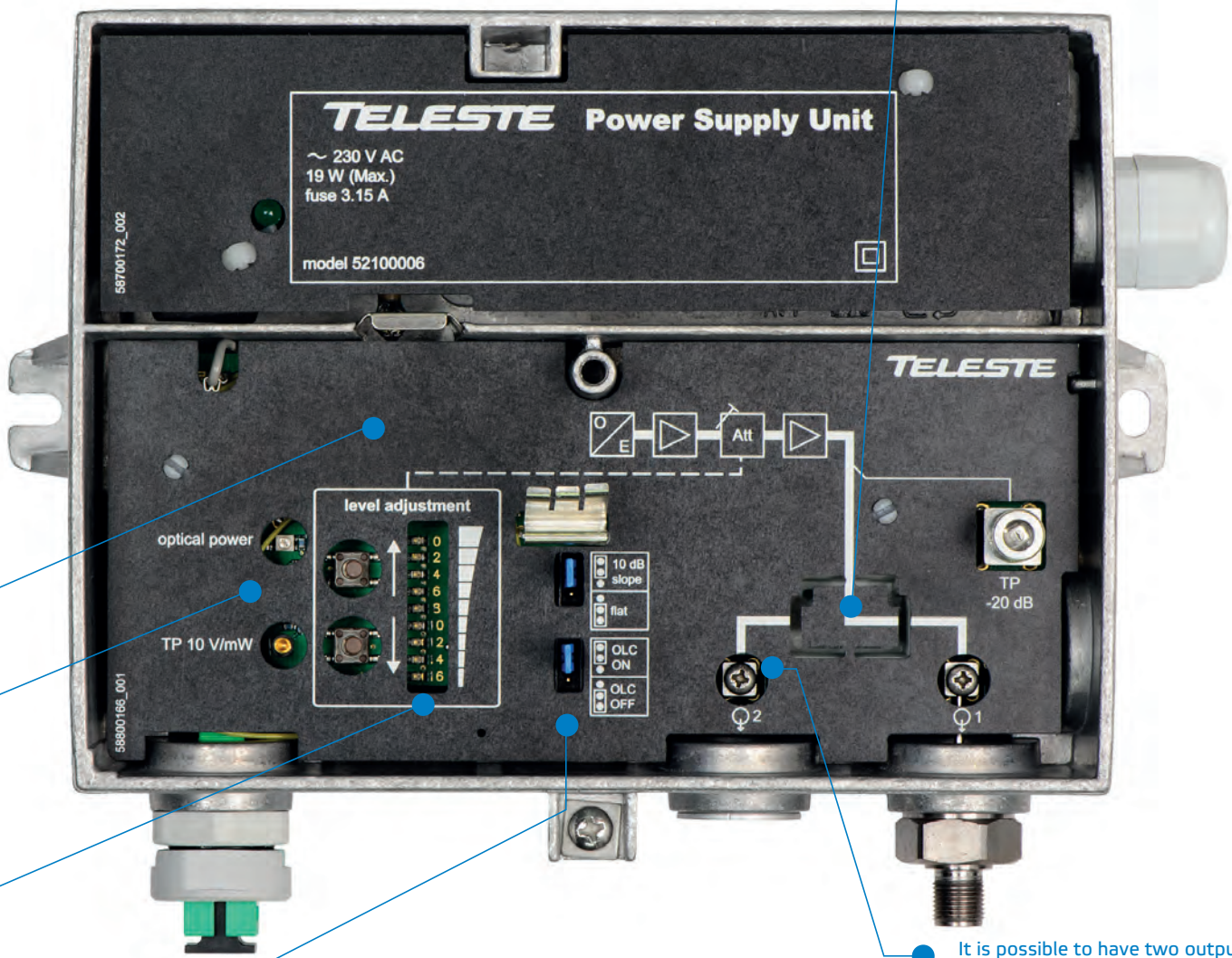
Electrical output level adjustment and practical LED light bar with corresponding adjustment indication allows uninterrupted operation.

OLC (Optical Level Control) in the CXE810 fibre receiver is designed to deliver maximized performance by delivering a stable output.



High gain receiver for multi-store buildings

A simplified example of a fibre-based (FTTB) access network where CXE810 receivers are typically placed in a suitable location near/on the premises and are connected to customers via existing coaxial cables. New remarkably high output level ensures access to high multi-store buildings without a need for other active coaxial network elements.



No plug-in accessories in normal one-output operation.

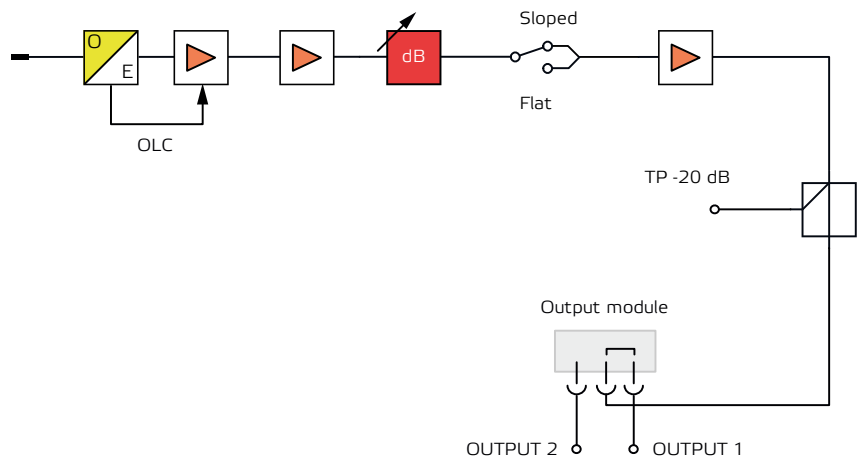
It is possible to have two outputs using the following separately orderable plugs:

- AC6112 Tap, 1 / 12 dB
- AC6116 Tap, 1 / 16 dB
- AC6119 Tap, 1 / 20 dB
- AC6128 Tap, 2 / 9 dB
- AC6124 Splitter, 4 / 4 dB

The F connector (KDC213) for the second output port can be ordered as a separate item.

Features

- Lightweight and compact design
- Robust and easy to use
- Optical Level Control (OLC) based on optical input power
- DC test point and LED indicator on optical receiver
- Supports 1 GHz downstream
- High gain and RF output power with GaAs MESFET technology
- Low noise current density
- Easy RF output level adjustment
- No additional plug-ins
- Two outputs with an optional plug-in splitter or tap
- Efficient ESD and Surge protection



Technical specifications

CXE810 FIBRE OPTIC RECEIVER

Downstream signal path

Light wavelength	1290...1600 nm	Flatness	± 0.5 dB
Optical input power range	-7...0 dBm	Test point	-20 dB
Frequency range	47...1006 MHz	Noise current density	6 pA / √ Hz
Return loss	18 dB	CTB 42 channels	113.5 dBμV
OLC limited output level	115 dBμV	CSO 42 channels	113.0 dBμV
Gain limited output level (without OLC)	120 dBμV	XMOD 42 channels	110.0 dBμV
Level adjustment	0...-16 dB		
Mid-stage slope	0 / 10 dB		

General

Power consumption	15 W	Dimensions (h x w x d)	148 mm x 210 mm x 84 mm
Supply voltage	165...255 V AC	Weight	1.6 kg
Optical connectors	SC/APC	Operating temperature	-40...+55 °C
Output connector	F-female	Class of enclosure	IP43
		EMC compatibility	EN50083-2 (IEC 60728-2)
		ESD	4 kV
		Surge	4 kV

