

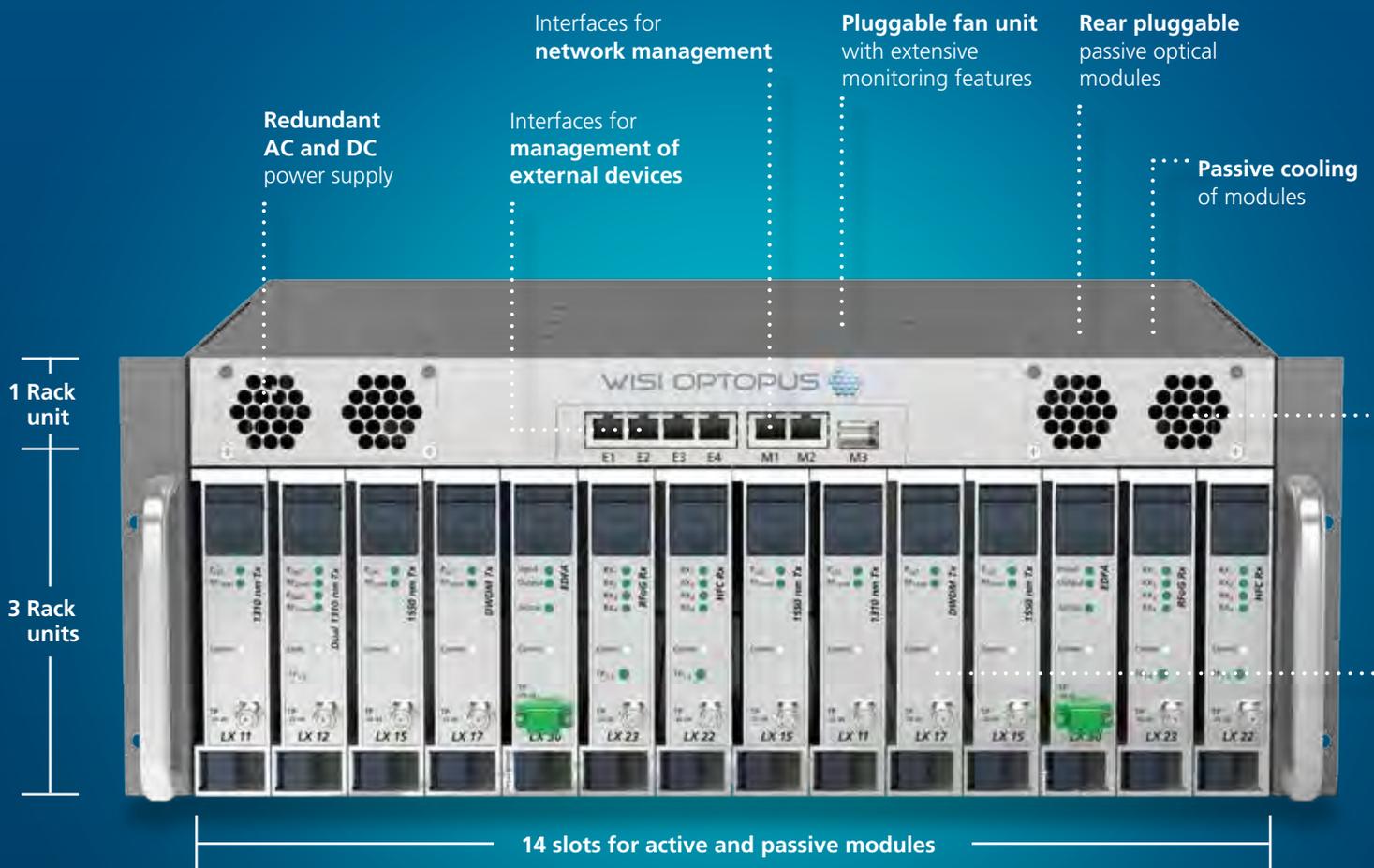


WISI OPTOPUS

Optical Platform for FTTx and HFC



WISI OPTOPUS Optical Platform for FTTx and HFC



The WISI optical platform Optopus is a highly flexible and high density platform for all kinds of RF optical networks. The system is used in any network such as HFC, RF over Glass or RF Overlay in FTTX applications.

Optopus is designed to meet the high requirements and reliability necessary for today's networks. State-of-the-art features such as redundant AC and DC power supplies, pluggable fan units and advanced management features meet the carrier-grade demands of telecommunication and cable operators.

The Optopus platform allows to mount any module into any slot, thus giving the possibility for individual configuration depending on the desired applications.

With its 14 slots in a 3+1 rackunit chassis it utilises up to 28 transmitters, 56 receivers or a mixture of both including power supply and management unit. Optopus is the system of choice for every operator enabling powerful, flexible and cost efficient optical access networks.

WISI Optopus at a glance:

- Full modular concept allows every application mix
- Hot swappable modules simplify upgrades
- Passive backplate reduces maintenance outages
- Redundant power supplies guarantee system availability
- Dust-free passive module cooling enlarges module lifetime
- Advanced management features for easy installation and operation

Redundant
AC and DC
power supply

Any module
in any slot

System Advantages

of Optopus platform

Reduction of maintenance outages because of **FULL MODULAR CONCEPT.**



The **modular concept** of Optopus allows every application mix in a single system.

Modules can be inserted or exchanged during operation thus simplifying extension and reducing maintenance outages.



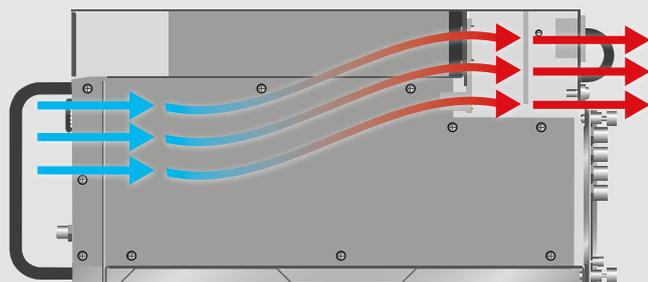
Advanced **MANAGEMENT FEATURES**

The system offers **comprehensive local and remote monitoring features** for each and every module. Supervision and operation is realized using state-of-the-art SNMP features and/or a web interface.



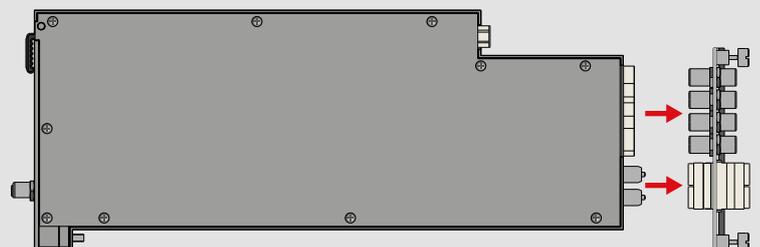
Prolonging the lifetime of modules because of **PASSIVE MODULE COOLING**

The **cooling and ventilation system** of Optopus is designed to prolong the operating lifetime of modules. The equipment uses a passive cooling without active fans or ventilation holes in the modules.



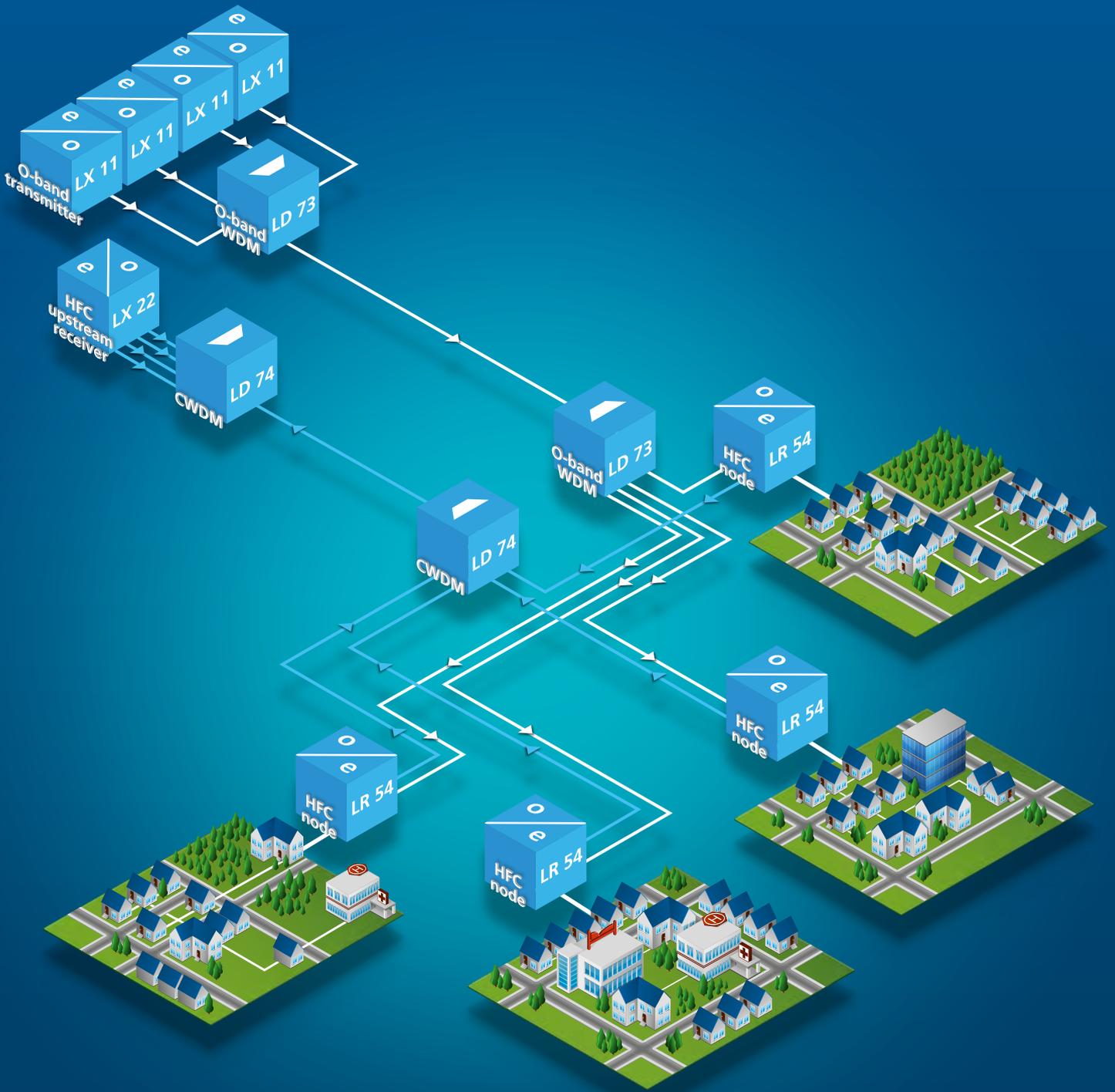
Reduction of maintenance outages because of **PASSIVE BACKPLATE**

The **passive backplate system** allows exchange of modules during operation without re-cabling. The system therefore reduces maintenance outages significantly.



Applications

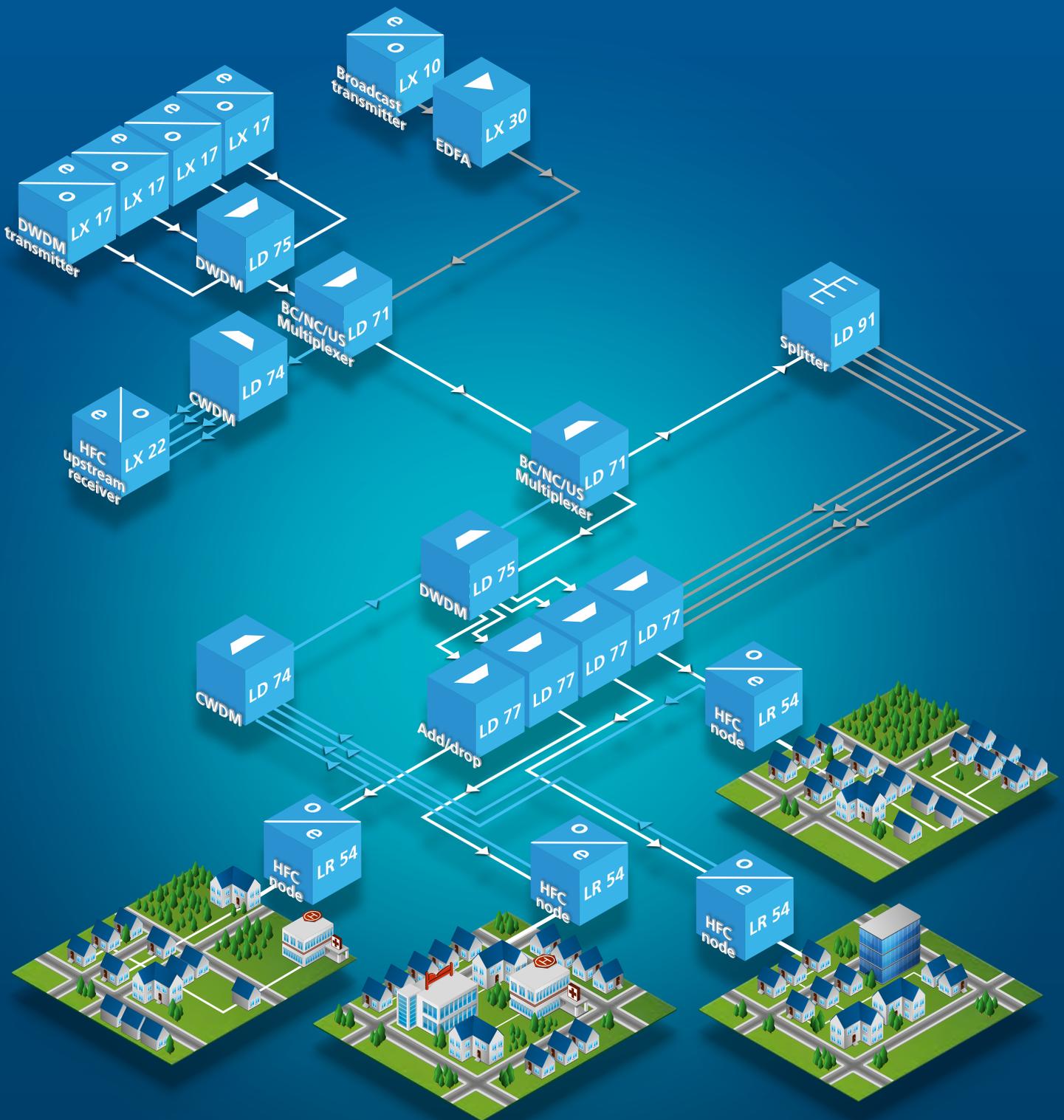
HFC Cluster Splitting



Optopus includes the full range of transmitters, return receivers and optical passives for every HFC application.

By using O-Band WDM technology with the fullband transmitters LX 11, it is possible to reduce HFC cluster sizes without deployment of additional fiber. This reduces the cost of a bandwidth increase significantly.

DWDM Broadcast/Narrowcast

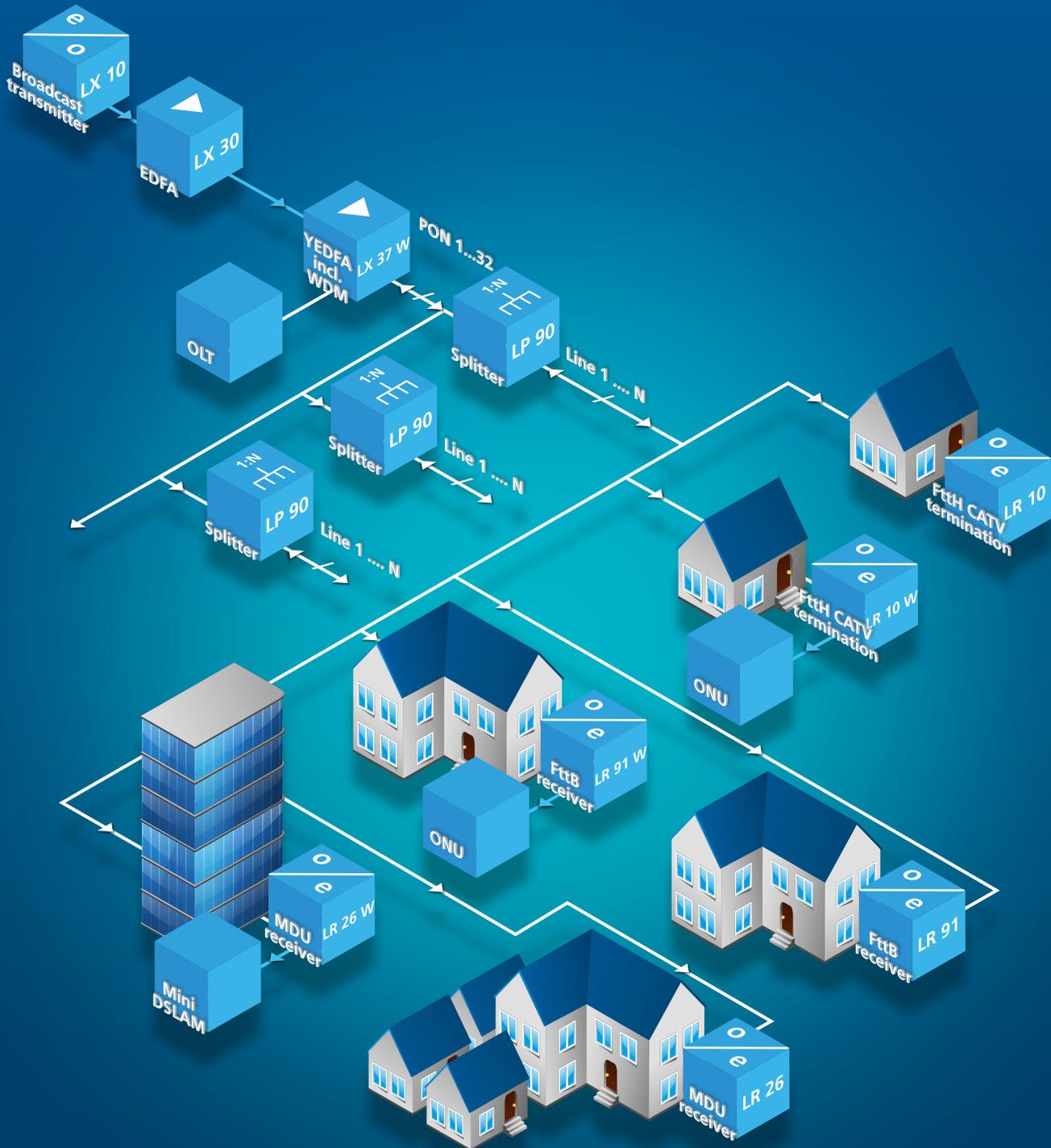


State-of-the-art broadcast-narrowcast-applications using DWDM transmission for the narrowcast are a strength of Optopus.

Broadcast services are transmitted over long distance links using externally modulated transmitters LX 10, while the narrowcast uses the DWDM transmitters LX 17. Both signals are terminated in a fibernode, which may use CWDM upstream technology.

Applications

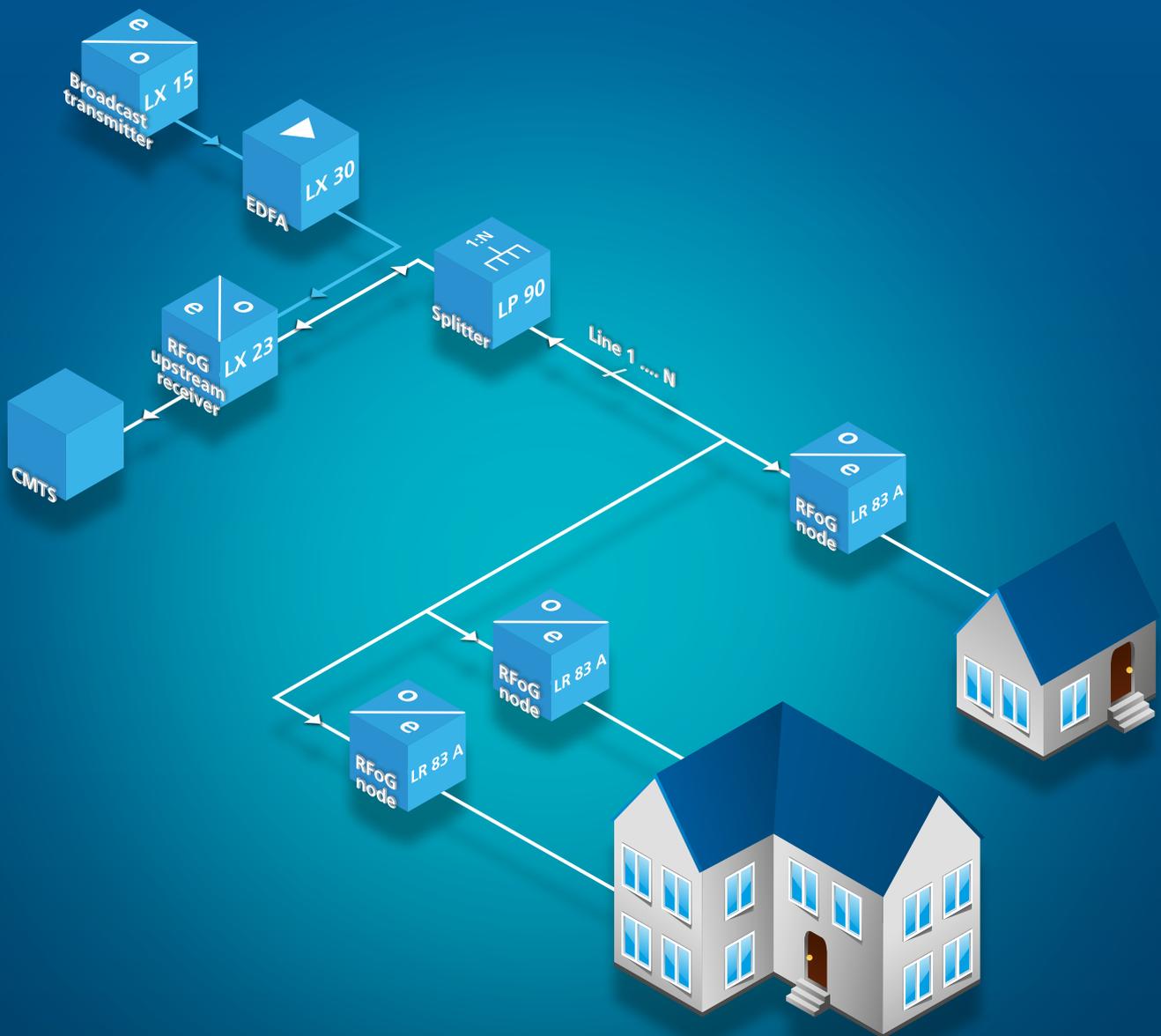
FTTx - RF Overlay



Offering broadcast TV services in today's FTTx networks is easily realized using 1550 nm transmitters together with high power YEDFAs.

The Optopus product family includes externally modulated transmitters LX 10 and very high power YEDFAs LX 37 for large scale deployments. For smaller networks a variant with directly modulated LX 15 transmitter is also possible.

FTTH - RF over Glass



Optopus includes the components for RF over Glass networks, the cable operators' choice for FTTH applications.

Depending on the size of network and distances to cover, Optopus offers a range of externally or directly modulated transmitters and high power YEDFAs. The RF over Glass receiver LX 23 with its very low noise receivers ensures optimization of the network even in challenging topologies.

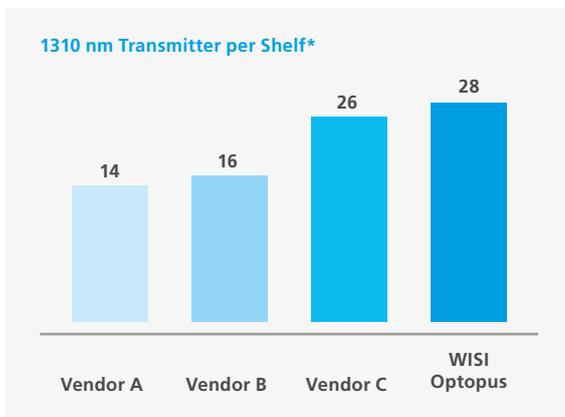
Facts & Figures

WISI Optopus

HIGH DENSITY System

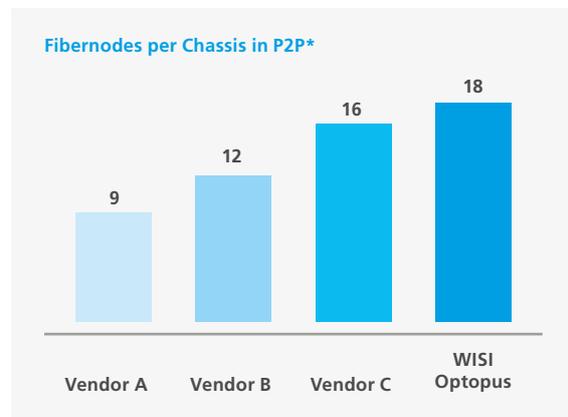
Up to 100 % more 1310 transmitters per chassis

The 14 slots of the Optopus chassis can be fully equipped with high density dual transmitters, allowing 28 different downstream segments from one single chassis.



Doubling the number of connected fibernodes

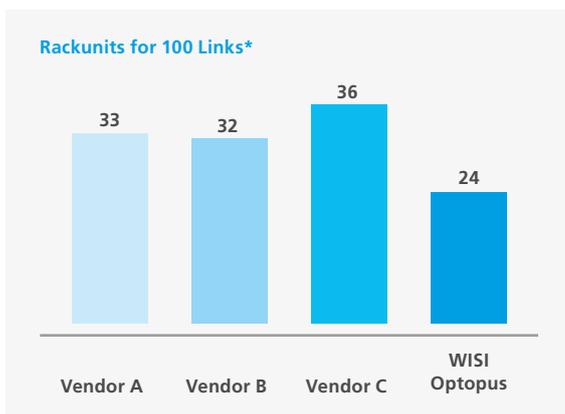
The high density modules allow to connect up to 18 fibernodes in point-to-point architecture, using 9 dual transmitters and 5 quattro return path receivers modules.



REDUCING Operational Cost

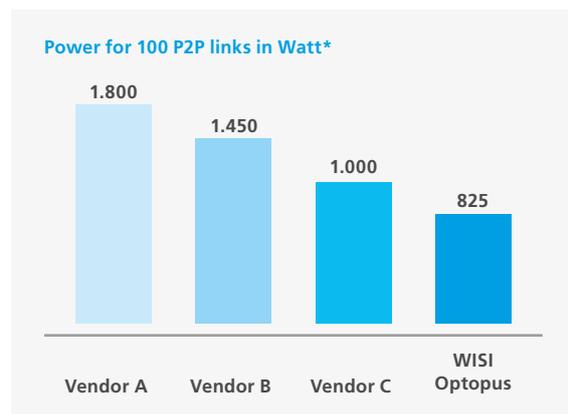
Less space necessary for the same application

The Optopus system needs less space for deployments compared to other products. This reduces the cost of deployment, sparing and rack space lease.



Extremely low power consumption

Total cost of ownership is reduced due to the focus on reduced power consumption modules, saving cost for energy and air conditioning.



*Calculation with dual 1310 transmitter and quattro return path receiver

Modules & Stand Alone Units

WISI Optopus

Transmitter Modules



- **LX 11** 1310 nm + O-Band broadcast transmitter
- **LX 12** 1310 nm + O-Band broadcast transmitter
- **LX 13** CWDM dual return path transmitter
- **LX 15** 1550 nm broadcast transmitter
- **LX 17** DWDM narrowcast transmitter

Optical Receivers



- **LX 21** Downstream receiver
- **LX 22** Quattro upstream HFC receiver
- **LX 23** Quattro upstream RFOG receiver

Optical Amplifiers



- **EDFA LX 30** Optical amplifier
- 1x or 2x 14.0 dBm
- 1x or 2x or 4x 17.5 dBm
- 1x or 2x 21.0 dBm

Externally Modulated Transmitter



- **LX 10** FTTx, long haul or SAT-IF transmitter
- Stand-alone or integrated operation together with LX 50
- Narrow line width and very low RIN

High Power YEDFA



- **LX 37** high performance erbium doped amplifier
- Stand-alone or integrated operation together with LX 50
- Integrated WDM filter option for FTTx applications

Accessories & Optical Passives

WISI Optopus



LP 30
Fiber Management Unit



LP 40
Mounting Frame
for LD Modules



LP 90
Optical Splitter
with 8, 16, 32 or 64 outputs

Multiplexer and Filter for mounting **LX 50 or LP 40**

LD 73 O-Band Multiplexer

LD 74 CWDM Multiplexer

LD 75 DWDM Multiplexer

LD 9 x Optical Splitter
1 x 2, 1 x 3 or 1 x 4

Other variants on request

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