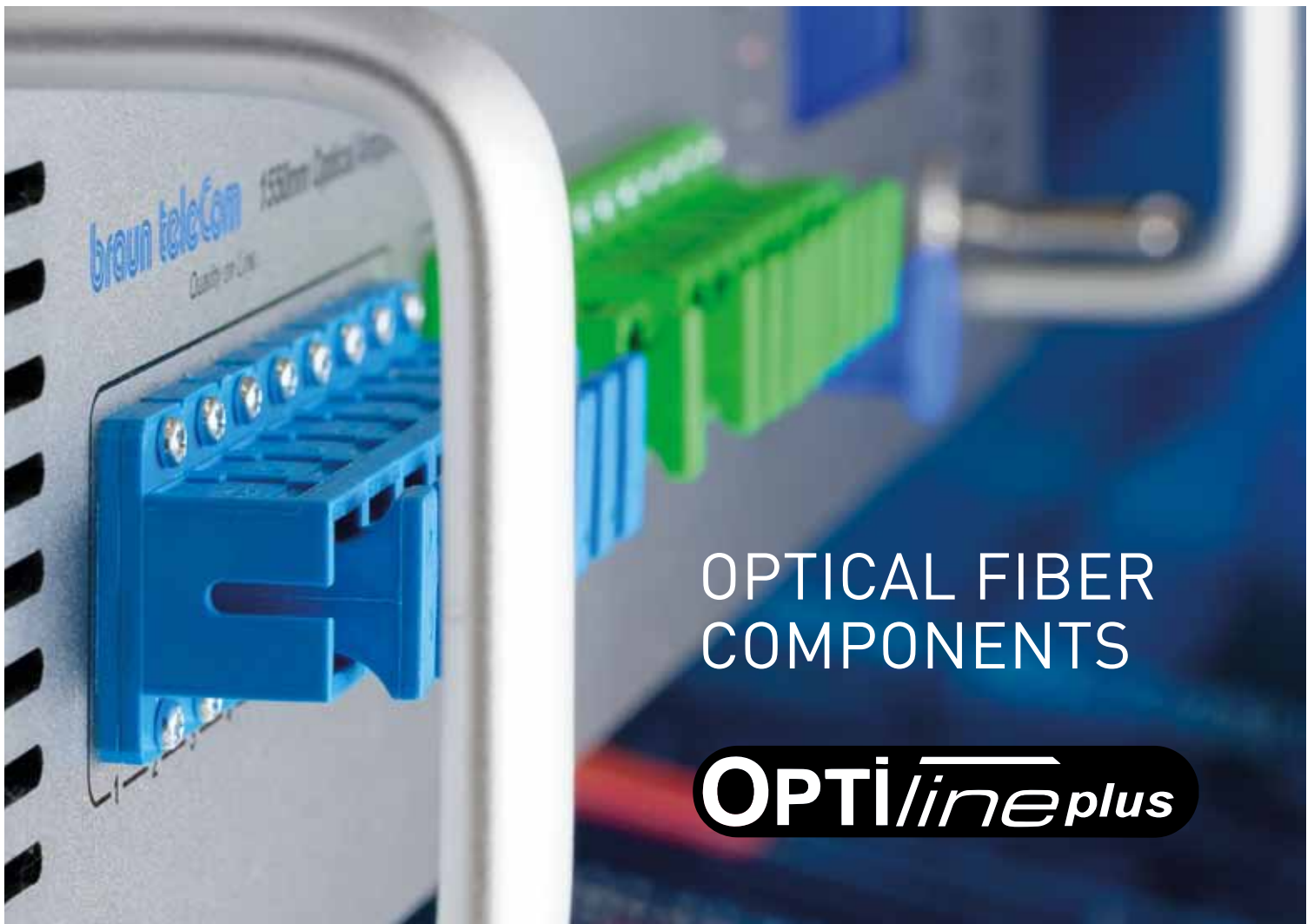


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*Quality on Line.*



OPTICAL FIBER  
COMPONENTS

**OPTi***line*plus

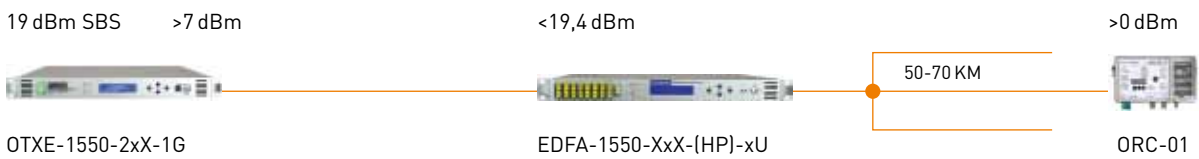
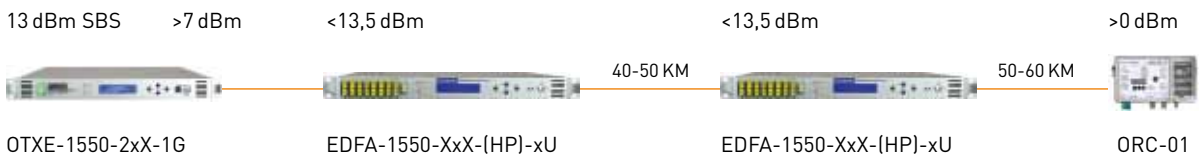


# OPTi<sup>line</sup>plus

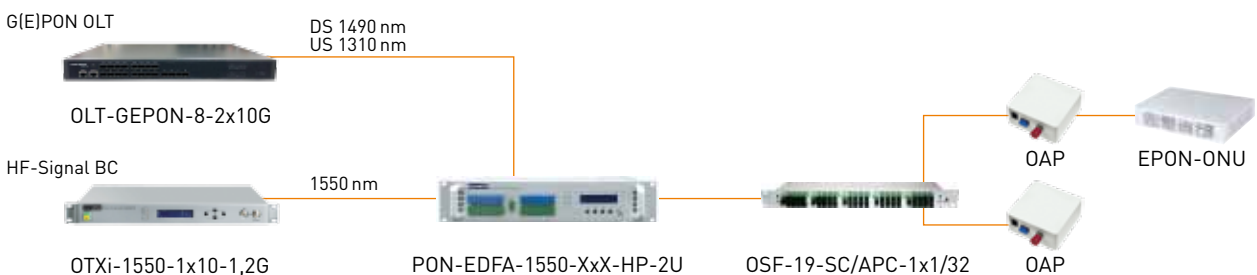
## OPTICAL FIBER COMPONENTS

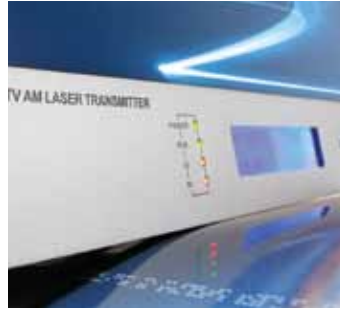
The **OPTi<sup>line</sup> plus** series includes a wide range of 1310 nm and 1550 nm Transmitters, optical amplifiers and return receivers.

In addition to these active optical system components, the **OPTi<sup>line</sup> plus** series also offers a complete product portfolio of passive products such as optical splitters, WDM couplers and Patch Cables in different form-factors.



Network example with EPON OLT and RF Broadcast:





## ACTIVE OPTICAL HEAD-END TECHNOLOGY

### OPTICAL TRANSMITTERS

The flagship of the **OPTline plus** series is the OTXE-1550, an externally modulated, High-End, High-Performance but cost effective 1550 nm transmitter series supporting xWDM wavelengths. Thanks to its configurable range up to 19 dB SBS the OTXE can be used in large HFC distribution networks as well as in optical RF transmission via fiber over links of 100 km and beyond.

To ensure a resilient and redundant network design, all **OPTline plus** transmitters are equipped with high quality switching power supplies in load-sharing configuration. In the case of a power supply outage the second power supply will feed the whole unit. SNMP and the integrated webserver enables the operator to remote monitoring and remote management of the **OPTline plus** transmitters products.

Next to the OTXE-1550 Externally Modulated transmitter series the **OPTline plus** portfolio also offers cost effective 1310nm and 1550 nm direct modulated transmitter designed for use in HFC networks with short fiber lengths or basic requirements with low-noise DFB-Lasers with a very good linearity and excellent system parameters. These products are especially designed for use in combination with our **OPTline plus** EDFA-series for use within PON network designs.

- OTXi-1550-1xX-1,2G – Direct modulated transmitter 1550 nm and 1.2 GHz
- OTX-1310-1xX-1,2G – Direct modulated transmitter 1310 nm and 1.2 GHz
- OTXE-1550-2xX-1,2G – Externally modulated transmitter 1550 nm and 1.2 GHz

### OPTICAL SWITCH

Designed to achieve the best possible network performance. Next to monitoring the presence of an Optical signal the **OPTline plus** optical switch also monitors if the offered Optical RF-Signals are modulated yes or no. This despite the commonly available optical switches in the market place monitoring only the level of the optical signal.

- OSW-2 – Optical switch with RF-testpoint

### OPTICAL AMPLIFIERS

Very large product range of optical amplifiers, starting with standard power devices with a small internal optical output power up to high-performance devices with higher port count and high optical output power up to 24 dBm. Developed especially for use in FTTx P2MP networks, the range also consist out of EDFA's with integrated WDM-PON Filters to save space and operating cost.

- EDFA-1550-XxX – Standard Power EDFA with up to a maximum of 4 outputs
- EDFA-1550-XxX-HP-1U – High-performance EDFA 1U and with up to a maximum of 16 outputs
- EDFA-1550-XxX-HP-2U – High-Performance EDFA 2U and with up to a maximum of 64 outputs
- PON-EDFA-1550-XxX-HP-2U – High performance EDFA with integrated PON filter and with up to a maximum of 64 outputs

Special configurations are available upon request.

### OPTICAL RETURN RECEIVER

To convert optical upstream signals into RF for use in head-ends and hubs the **OPTline plus** series offers also a return receiver able to handle (configurable) continuous wave signals (normal-mode) or RfoG signals (burst-mode) via 4 separate optical return receivers in one compact 1RU 19" housing.

- ORX-4C-200 – Return receiver 4 channels and 200 MHz



## PASSIVE OPTICAL HEADEND TECHNOLOGY

### 19" SPLICE PANELS AND SHELFs

In different sizes 1RU, 2RU and 3RU with different type of front panels for use in standard 19" cabinets. Very easy in use and safe operation thanks to the sophisticated telescopic drawer and integrated lock. The 19" Splice panel or system modules are completely ready for installation, and with adapters and inserted Pigtails available on request.

- 1HE 19" for a maximum of 24 SC DX connectors
- 2HE 19" for a maximum of 48 SC DX connectors
- 2HE 19" for a maximum of 72 SC DX connectors
- Shelf for up to 12 Modules available with all common connector types

### PLC-SPLITTERS

The splitters are based on Planar technology and available as in a 1xN splitter with 1 input and as a 2xN-splitter with 2 inputs for input redundancy. Their characteristics include low attenuation, high return-loss and high reliability and stability, also on the long term. Due to these characteristics, the splitters are ideally suited for various requirements as for example PON networks

#### Versions:

- In ABS box formfactor or SFF type/tube with all commonly available connector types
- In 19" housing completely assembled.  
For example: OSF-19-SC/APC-1x1/32
- In LGX module (single or double slot)

### WDM MULTIPLEXER

For the combining or splitting (mux/demux) of different wavelengths for various applications such as forward and

return transmission over one fiber, combine different network segments (wavelengths) over one backbone fiber or for example for use within (G)PON applications.

#### Versions:

- In ABS box or SFF type/tube with all commonly available connector types
- In 19" housing completely assembled.  
For example: OSF-19-CWDM-16xGPON-SC
- In LGX module (single and double slot)

### SIMPLEX UND DUPLEX PATCH CABLES

We run a large standard program consisting of various patch cables with a wide variety of connectors and fiber types. Further we also manufacture complex customized cables, for example with one-sided MPO plug on customer request.

### OTHER / TECHNICAL SERVICE

- In general safety stock available of comparable products for a quick and temporarily installation or replacement
- High quality/performance ratio
- Qualified Tech Support/ticket & FAQ Base in place
- Standard Warranty 2 years, Optional warranty extension up to 5 years
- Long system life with proven very low number of returns
- Discounted evaluation samples
- Complete product range with partner Products available to offer OBI-free solutions
- Able to offer fully-redundant systems, thanks to our Optiline Plus switch with optical level and HF-signal monitoring
- 100% quality control in Hanover

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