ELTEX
Integrated Networking Solutions

— **Up to 16 XGS-PON ports, 1U case**

— **Hot-swappable redundant power modules**

— **Remote management via CLI, SNMP, Web**

— **Compliance with G.988, G.984.x and TR-156 standards**

— **Cable TV with data transmission**

— **Optimal solution for a small village or an apartment building**

LTX-8

LTX-16

LTX series station equipment (OLT) is designed to provide broadband access over Passive Optical Networks (PON).

XGS-PON interfaces are used to connect an optical distribution network. Up to 128 optical subscriber terminals can be connected to each interface via a single fiber by the GPON standard and up to 256 subscriber terminals by the XGS-PON standard. The access to the operator's transport network is provided via 100 Gigabit uplink interfaces.

OLT LTX allows operators building scalable, last mile fault-tolerant networks that meet the highest safety standards. OLT manages subscriber devices, traffic switching and connection to the transport network.

Broadband subscriber access using FTTH technology is the highest quality Triple Play service delivery option, as it provides high data transmission rates over long distances.

The main advantage of PON technology is the absence of electrically powered active nodes within the section from OLT to ONT, which significantly reduces the network operating cost. Furthermore, PON technology saves on cabling infrastructure by reducing the total length of the optical fiber, since only one fiber for a group of up to 128 subscribers (GPON standard) and up to 256 subscribers (XGS-PON standard) is used within the section from the central node to the splitter.

OLT station terminals support two hot-swappable power modules with the ability to automatically switch to a redundant power unit.

OLT interfaces

Name	Number of PON ports	Number of Uplink ports	Maximum number of ONT
OLT LTX-8	8	4 × 100GBASE-SR-4/LR4 (QSFP28)	2048/1024
OLT LTX-16	16	4 × 100GBASE-SR-4/LR4 (QSFP28)	4096/2048

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Features and capabilities

Interfaces

LTX-8

Uplink

— 4 × 100GBASE-SR-4/LR4 (QSFP28) ports

Downlink

— 8 × XGS-PON ports

LTX-16

Uplink

— 4 × 100GBASE-SR-4/LR4 (QSFP28) ports

Downlink

— 16 × XGS-PON ports

Port modes

— 100 Gbps duplex mode for optical ports

SFP PON parameters[1]

— Transmission medium: SMF-9/125, G.652 fiber optic cable
— Splitting ratio: 1:256 XGS-PON or up to 1:128 GPON
— RSSI (Received Signal Strength Indication)
— Compliance with ITU-T G.9807.1
— Maximum transmission distance: 20 km
— Transmitter: 1577 nm
    — Data rate: 9.953 Gbps
    — Average output power: 2~5 dBm
— Receiver: 1270 nm
    — Data rate: 9.953 Gbps
    — Receiver sensitivity: -26 dBm

Switch

— Bandwidth: 120 Gbps
— MAC table: 64K entries
— VLAN table: 4K (in compliance with 802.1Q)

Physical parameters

— Power supply[1]:
    — 100–240 V AC, 50–60 Hz
    — 36–72 V DC
— Power consumption:
    — LTX-8: no more than 101 W
    — LTX-16: no more than 108 W
— Operating temperature: from -5 to +40 °C
— Relative humidity: up to 80%
— Dimensions (W × H × D) with installed power module: 430 × 43.6 × 451.2 mm, 19", 1U case
— Weight: 6.2 kg

Standards

— ITU-T G.988 OMCI specification
— ITU-T G.984.x GPON
— ITU-T G.8032/Y.1344 Ethernet ring protection switching[2]
— TR-156
— IEEE 802.3i 10BASE-T Ethernet

— IEEE 802.3u 100BASE-T Fast Ethernet
— IEEE 802.3ab 1000BASE-T Gigabit Ethernet
— IEEE 802.3z Fiber Gigabit Ethernet
— ANSI/IEEE 802.3 NWay auto-negotiation
— IEEE 802.3x Full Duplex and flow control[2]
— IEEE 802.3ad Link aggregation
— IEEE 802.1p Protocol for Traffic Prioritization
— IEEE 802.1Q Virtual LANs
— IEEE 802.1ad Provider Bridges (QinQ)
— IEEE 802.3ac VLAN tagging
— IEEE 802.1d MAC bridges
— IEEE 802.1w Rapid Reconfiguration of Spanning Tree[2]
— IEEE 802.1s Multiple Spanning Trees[2]

Additional features

— Port mirroring, VLAN mirroring
— MAC table: 64K per switch, 8K per port
— MAC address limiting
— STP, RSTP, MSTP[2]
— ERPSv2[2]
— QoS: 802.1p, WFQ, DSCP[2]
— Port isolation, port isolation within a VLAN
— Unicast/multicast/broadcast traffic limiting
— ACL Ipv4
— QinQ in compliance with IEEE 802.1ad
— Up to 1024 multicast groups
— IGMP Fast Leave
— IGMP Proxy
— IGMP Snooping
— IGMP Querier
— DHCPv4 Snooping
— IP Source guard
— DHCPv4 Relay Agent (Option 82)
— PPPoE Intermediate agent
— LLDP (802.1ab)
— Storm Control
— Policy[2]
— Utilization by ONT services
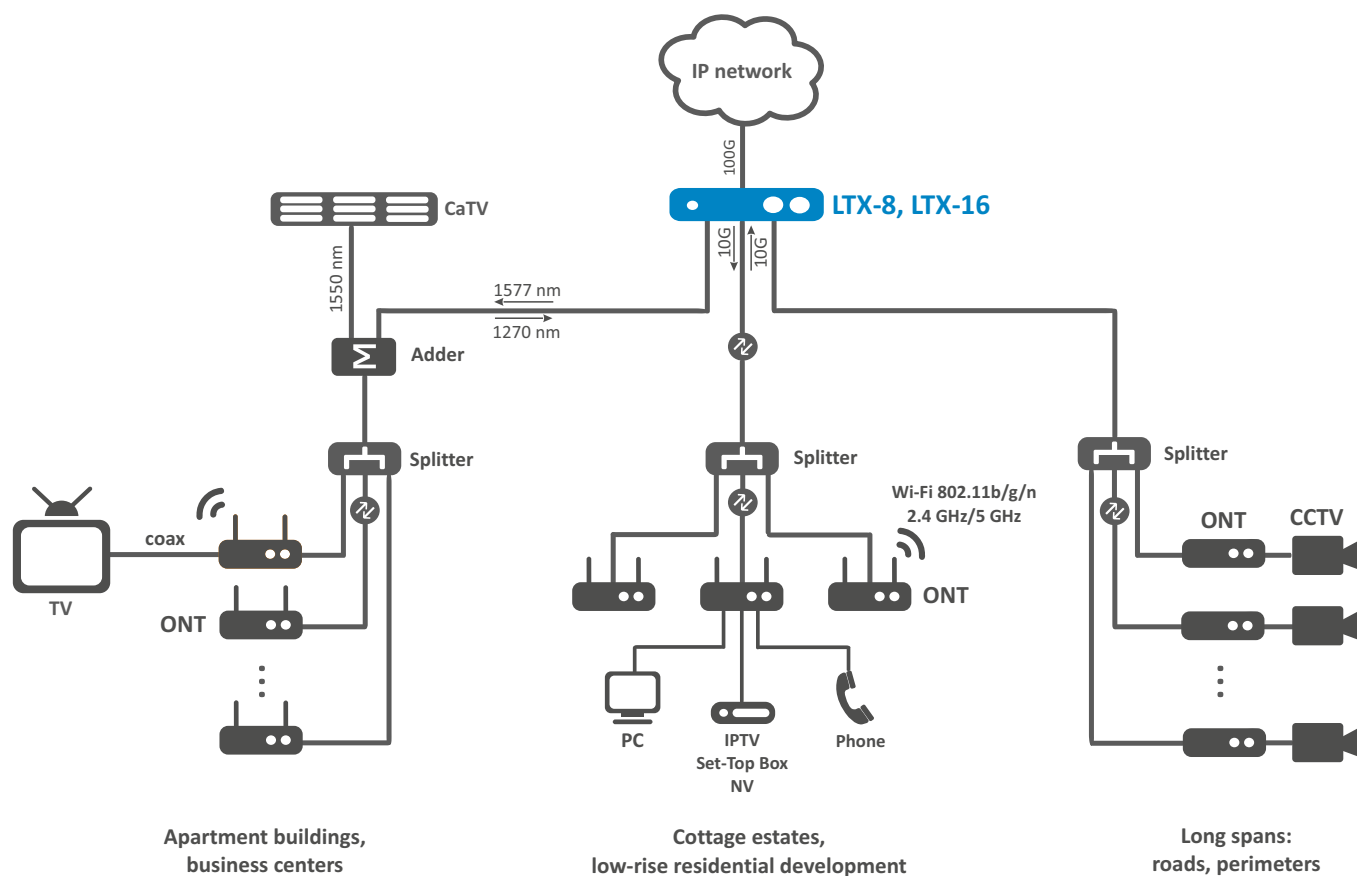— OMCI Bridge
— OMCI RG

Management and monitoring

— RADIUS, TACACS+
— Management and monitoring via CLI, SNMP, Web
— Access restriction: by password, IP address, privilege level
— Several management interfaces

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[1] The parameter is defined when ordering.

[2] The features will be available in future firmware versions.

Use case

IP network

100G

LTX-8, LTX-16

10G 10G

CaTV

1550 nm

1577 nm
1270 nm

Adder

Splitter

Splitter

**Wi-Fi 802.11b/g/n
2.4 GHz/5 GHz**

Splitter

coax

TV

ONT

ONT

ONT CCTV

PC

**IPTV
Set-Top Box
NV**

Phone

**Apartment buildings,
business centers**

**Cottage estates,
low-rise residential development**

**Long spans:
roads, perimeters**

Ordering information

Name	Description
OLT LTX-8	OLT LTX-8, 8 × XGS-PON ports, 4 × 100GBASE-SR-4/LR4 (QSFP28) ports
OLT LTX-16	OLT LTX-16, 16 × XGS-PON ports, 4 × 100GBASE-SR4/LR4 (QSFP28) ports
Related products	
PM350-220/12	PM350-220/12 power module, 176–264 V AC, 350 W
PM350-48/12	PM350-48/12 power module, 36–72 V DC, 350 W

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About ELTEX

ELTEX Enterprise is a leading Russian developer and manufacturer of telecommunication equipment with 30 years of history. Complete solutions and their seamless integrability into the Customer's infrastructure are the priority growth areas of the company.