- Support for 802.11ax (6G Wi-Fi)
- Radio interface with MU-MIMO 2×2
- Transmitter power up to 26 dBm
- Real throughput up to 1300 Mbps
- Access point and client mode
- Distance up to 7 km
- Up to 30 clients per base station
- Support for TDD

Base station

WOP-3ax-LR6 is a new generation Wi-Fi 6E device, designed to organize broadband wireless access networks in private housing. The device provides clients with wireless Internet access in long distances and with Triple Play services. The device is an essential solution for organizing wireless networks in various climatic conditions: operating within a wide temperature range and high humidity, with support for connecting various types of sectoral antennas.

Scalability

WOP-3ax-LR6 base station is a modern flexible solution that provides extending coverage zone due to the power of its transmitter (up to 26 dBm) and the use of sectoral antennas.
Due to a high-performance hardware, scalability features and intuitive interface, it is possible to deploy a wireless IT infrastructure easily and quickly.

Wireless connection

Due to support for IEEE 802.11ax standard the WOP-3ax-LR6 base station provides data rate of up to 2402 Mbps.
The use of MU-MIMO technology and sector antennas makes the device a universal solution for broadband wireless access network organization.

Performance

For stable and continuous operation of the device, the high-performance processors are used, providing the highest data routing speed and the best efficiency of FBWA (Fixed Broadband Wireless Access).

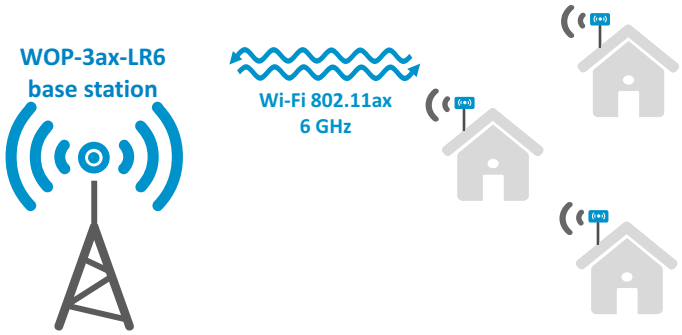
Security

To ensure a secure connection, modern authentication technologies are supported. WPA3 encryption is used, as well as centralized authorization via a RADIUS server (802.1X WPA3 Enterprise).
To manage the base station, access rights are divided by roles with the ability to authenticate using a local account, as well as via a RADIUS server.

Power

The PoE+ technology makes it possible to install the equipment anywhere, regardless of the power supply location, reduces total cost by discarding power cables and makes installation easier and faster.

Use case



Interfaces configuration

Name	Ethernet	SFP	SMA connectors for antennas
WOP-3ax-LR6	1×1G Combo		2

Antenna	Gain, dBi	Distance, km
RFE 50-65/90/16	16	7

Features and capabilities

Interfaces
– 1 Combo port 10/100/1000BASE-T (RJ-45)/ 100/1000BASE-X (SFP)
– 2 SMA connectors (female) for external antennas (Omni, sector, panel, etc.)
– Wi-Fi 6 GHz IEEE 802.11ax

WLAN
– Support for IEEE 802.11ax
– Data aggregation, including A-MPDU (Tx/Rx) and A-MSDU (Rx)
– WMM-based priorities and packet planning
– Access point mode (AP-PTP/AP-PMP)
– Client mode (STA)
– Support for hidden SSID
– Support for MAC ACL
– Third-party access points detection
– Support for APSD
– Channel list limiting
– Spectrum analyzer
– Support for fixed center frequency
– Support for TDD
– Antenna alignment

Network features
– Automatic negotiation of speed and duplex mode
– Support for VLAN (Access, Trunk, General)
– Management VLAN
– DHCP client
– VLAN mapping
– Loopback Detection
– MVR
– NTP
– Syslog
– DHCP snooping
– IGMP snooping (limit on the maximum number of groups)
– Limiting the number of MAC addresses learned (MAC learning)
– BPDU
– IPv6
– LLDP
– Ping Watchdog

QoS functions
– Bandwidth limiting
– Configuring WMM parameters for the radio interface
– Priority by 802.1p, DSCP and VLAN ID
– Traffic priority based on MAC/IP address

Security
– Centralized authentication via RADIUS server (802.1X WPA3 Enterprise)
– WPA3/OWE encryption
– Authorization via RADIUS server when logging

Configuration
– Remote control via Telnet, SSH
– Web interface
– CLI
– NETCONF
– SNMP

Wireless interface specifications
– Frequency range 5935–7125 MHz
– BPSK, QPSK, 16QAM, 64QAM, 256QAM, 1024QAM modulations
– Support for MU-MIMO 2×2
– Support for OFDMA
– Bandwidth: 20, 40, 80, 160 MHz
– Channel selection with 5 MHz increment

Operating channels[1]
– 802.11ax: 1–233 (5935–7125 MHz)

Data rate[2]
– 802.11ax: 2402 Mbps

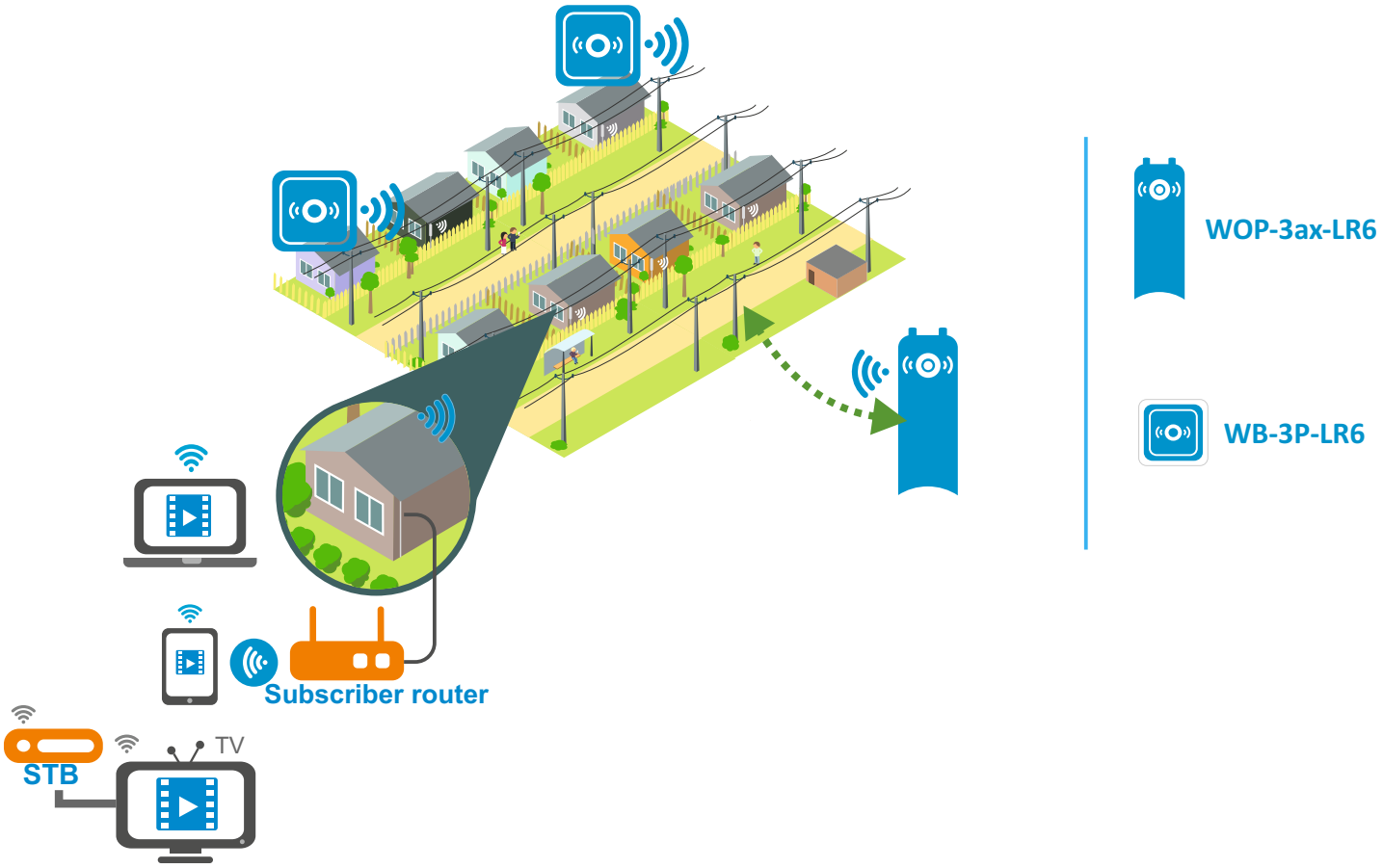
Maximum power of the transmitter[1]
– 6 GHz: 26 dBm

Receiver sensitivity
– 6 GHz: up to -96 dBm

Physical specifications
– Power consumption: no more than 14 W
– 128 MB SPI-NAND Flash
– 256 MB DDR3 RAM
– Power: PoE+ 48 V/56 V (IEEE 802.3at-2009)
– Operating temperature: from -45 to +65 °C
– Ingress protection: IP55
– Dimensions (W × H × D): 125 × 236.5 × 50.4 mm
– Weight: 0.8 kg
– Pole/wall mount

[1] The number of channels and the value of the maximum output power will vary according to the rules of radio frequency regulation in your country.
[2] The maximum wireless data rate is defined according to IEEE 802.11 standards. The real bandwidth can be different. Conditions of the network, environment, the amount of traffic, building materials and constructions and network service data can decrease the real bandwidth. The environment can influence the network coverage range.

Use case



Ordering information

Name	Description
WOP-3ax-LR6	WOP-3ax-LR6 base station. Mounting kit.
Related products	
Sector antennas MIMO 2×2.	

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About Eltex

Eltex Enterprise is a leading Russian developer and manufacturer of communication 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.