ELTEX
Integrated Networking Solutions

— **Base station with support for 802.11b/g/n (2.4G Wi-Fi)**
— **Radio interface with MIMO 2x2 support**
— **Radio module power up to 26 dBm**

Base station

WOP-2ac-LR2 SYNC is designed to organize wireless broadband networks in private housing. WOP-2ac-LR2 SYNC provides broadband Internet access in long distances.

The device is a good choice for wireless network construction in a difficult climatic conditions. WOP-2ac-LR2 SYNC operates well in a wide operating temperature range and in high humidity (different climatic zones). The device allows connecting different sector antennas.

Scalability

The base station WOP-2ac-LR2 SYNC is an up-to-date flexible solution that provides expanded coverage zone due to its power of the transmitter (up to 26 dBm) and use of sector antennas. It is possible to deploy wireless IT infrastructure fast and easily by virtue of high-performance hardware, scalability and intuitive interface.

Wireless connection

The base station WOP-2ac-LR2 SYNC provides data rate up to 300 Mbps due to support for IEEE 802.11n standard.
Furthermore, support for MIMO technology and use of sector antennas make the device an universal solution for broadband access network organization.

Performance

To ensure stable and uninterrupted operation, the device is equipped with high-performance chipsets providing high data processing rates and effective operating via FBWA (Fixed Bandwidth Wireless Access) technology.

Inter-sector synchronization

WOP-2ac-LR2 SYNC devices support inter-sector synchronization mechanism. This functionality allows to construct multi-sector bases in conditions of limited frequency resource or use adjacent frequencies of neighboring sectors.
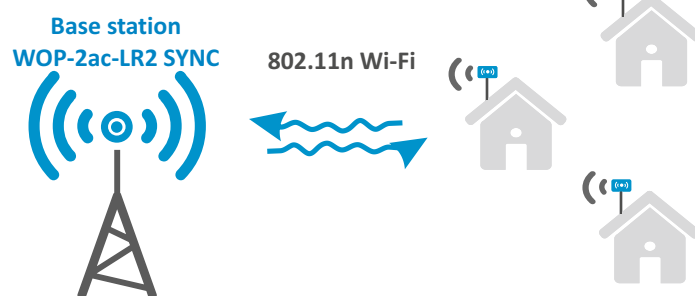
Security

The device uses up-to-date technologies of authentication to provide a secure connection. Particularly, WPA2 encryption is used, as well as centralized authorization via RADIUS server (WPA2-Enterprise).
Division of access rights by roles with the possibility of authentication by local account, as well as via the RADIUS server is provided for the management of the base station.

Power supply

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

Use case

Base station
WOP-2ac-LR2 SYNC   **802.11n Wi-Fi**

WOP-2ac-LR2 SYNC interfaces configuration

Name	Ethernet	SFP	SMA-type connectors for antennas
WOP-2ac-LR2 SYNC	1x1G Combo		2

Features and capabilities

Interfaces
– 1 Combo port 10/100/1000BASE-T (RJ-45)/ 100/1000BASE-X (SFP)
– 2 SMA-type connectors (female) for external antennas (Omni, sector, rod, etc.)
– Wi-Fi 2.4 GHz IEEE 802.11b/g/n

WLAN capabilities
– Support for IEEE 802.11b/g/n
– Data aggregation, including A-MPDU (Tx/Rx) and A-MSDU (Rx)
– Priorities and packet planning based on WMM
– Hidden SSID support
– 4 virtual access points
– Support for MAC ACL
– External access points detection
– APSD
– Spectrum analyzer
– Support for wireless bridges (WDS)
– Support for fixed center frequency
– Inter-sector synchronization (PTP)

Network functions
– Automatic negotiation of speed and duplex mode, switching over MDI and MDI-X modes
– Support for VLAN (Access, Trunk, General)
– VLAN mapping
– DHCP client
– Support for NTP
– Support for Syslog
– DHCP snooping
– IGMP snooping
– BPDU filtering
– Support for Ping Watchdog

QoS functions
– Bandwidth limiting for each SSID
– Client data rate limiting for each SSID
– Changing WMM parameters for radio interface
– Support for prioritization by CoS, DSCP and VLAN ID

Security
– Centralized authentication via RADIUS server (WPA/WPA2 Enterprise)
– WPA/WPA2 encryption
– 64/128/152-bit WEP encryption of data

Wireless interface parameters
– Frequency range 2402–2482 MHz
– DSSS, CCK, BPSK, QPSK, 16QAM, 64QAM modulation
– Support for MIMO 2x2
– Bandwidth: 5, 10, 20, 40 MHz

Operating channels[1]
– 802.11b/g/n: 1–13 (2402–2482 MHz)

Data rate[2]
– 802.11b: up to 11 Mbps
– 802.11g: up to 54 Mbps
– 802.11n: up to 300 Mbps

Receiver sensitivity
– 2.4 GHz: up to -98 dBm

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

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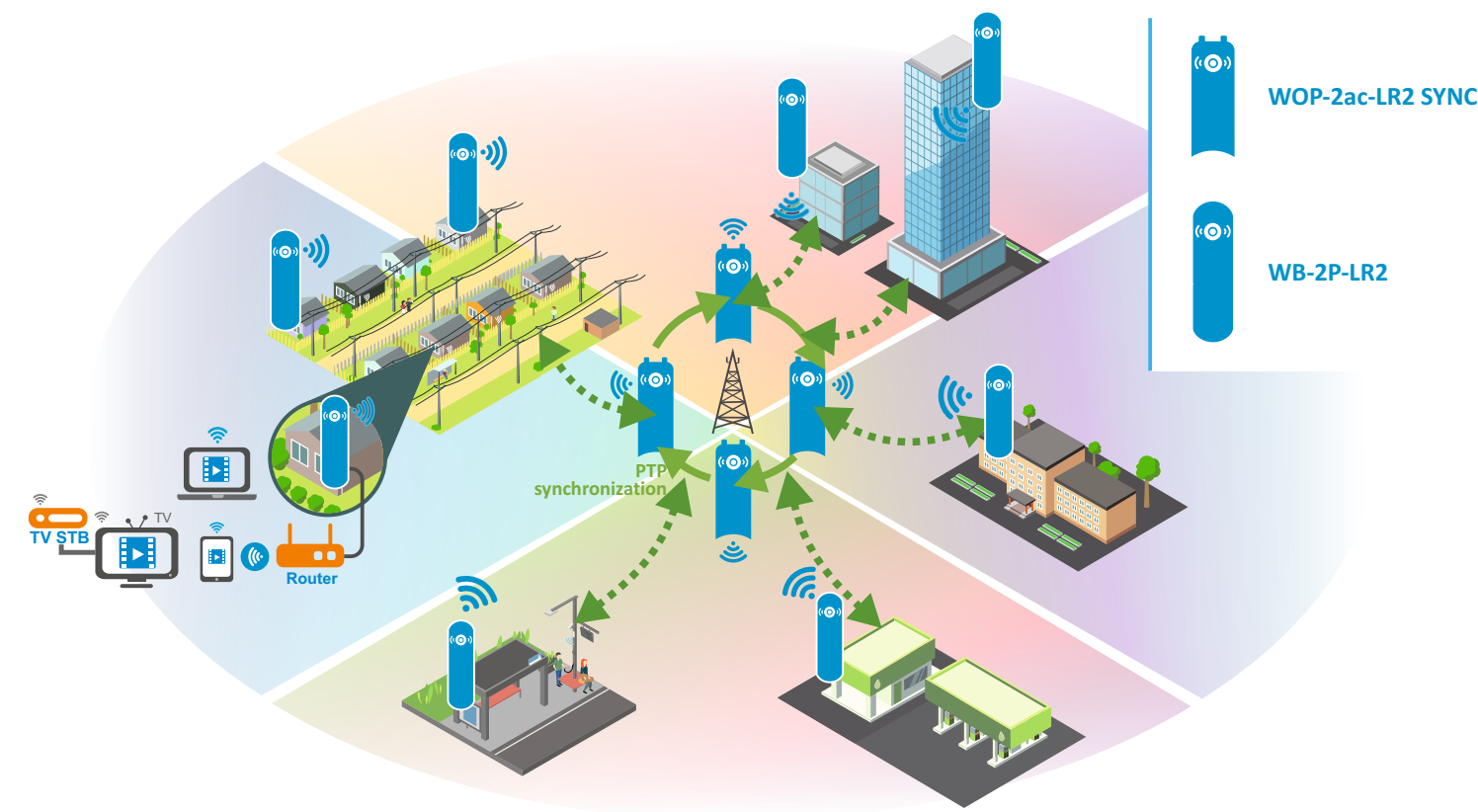– NETCONF
– SNMP (Monitoring)

Physical specifications
– Power consumption up to 13 W
– 32 MB Flash
– 128 MB RAM
– Power supply:
    – PoE+ 48V/56V (IEEE 802.3at-2009)
– Operating temperature from -45°C to +65°C
– IP54 protection level
– Dimensions (WxHxD): 88x232.5x47 mm
– Pole mount

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[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 802.11b/g/n standard. The real bandwidth might be different. Conditions of the network, environment, the amount of traffic, building materials and constructions and network service data might decrease the real bandwidth. The environment might influence on the network coverage range.

Use case

WOP-2ac-LR2 SYNC

WB-2P-LR2

PTP synchronization

TV STB

TV

Router

Ordering information

Name	Description
WOP-2ac-LR2 SYNC	Base station WOP-2ac-LR2 SYNC, mounting kit is included
Related products	
Sector antennas MIMO 2x2	
Power injector PoE+	

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About ELTEX

ELTEX Enterprise is a leading Russian developer and manufacturer of communication equipment with more than 25 years of history. Complete solutions and their seamless integrability into the Customer's infrastructure are the priority growth areas of the company.