

Integrated networking solutions

- High-performance solution based on Broadcom chipset
- Base station with support for 802.11ac (5G Wi-Fi)
- Centralized management and network monitoring
- 3 independent radio interfaces, MIMO 2x2:2
- Up-to-date authentication and encryption means
- Up to 30 clients on a base station sector
- Radio module power of up to 27 dbm



#### Base station WOP-12ac-LR

#### **Base station**

WOP-12ac-LR is designed to organize Broadband access networks in private housing, that provide broadband access to the Internet in a radius of 3 km and Triple Play services.

The device is a good choice for wireless network construction in a difficult climatic conditions. WOP-12ac-LR 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-12ac-LR — an up-to-date flexible solution that allows extending coverage zone due to its power of the transmitter (up to 27 dBm) and extending number of clients per base station (up to 150) due to 3 radio interfaces. 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-12ac-LR provides data rate of up to 867 Mbps on each interface due to the support for IEEE 802.11ac standard. Furthermore, the support for MIMO technology and use of narrow-band antennas make the device a universal solution for broadband access network organization.

## **Security**

The device uses up-to-date technologies of authentication to provide a secure connection. Particularly, it uses a dynamic key that is unique for each user device that interacts with WOP-12ac-LR.

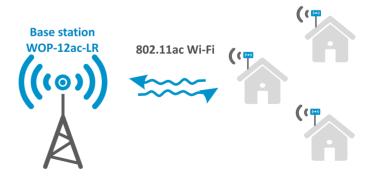
# **Performance**

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

## **Power supply**

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

# Use case



## **WOP-12ac-LR interfaces**

Name	RJ-45	SFP	N-type connectors for antennas
WOP-12ac-LR	2x1G	-	6
WOP-12ac-LR rev.D SFP	2x1G	1x1G	6
WOP-12ac-LR rev.D GPON	2x1G	1x1G	6

1 www.eltexalatau.kz/en



# Features and capabilities

#### **Interfaces**

- 2 Ethernet ports 10/100/1000Base-T (RJ-45)
- 1 port of 100/1000Base-X (SFP) optionally
- 6 N-type connectors (female) for external antennas (Omni, sector, rod, etc.)
- Console (RJ-45)

## **WLAN** capabilities

- Support for IEEE 802.11a/n/ac
- Data aggregation, including A-MPDU (Tx/Rx) и A-MSDU (Rx)
- Priorities and packet planning based on WMM
- Dynamic frequency selection (DFS)
- Hidden SSID support
- 24 virtual access points
- External access points detection
- APSD
- WDS

#### **Network functions**

- Automatic negotiation of speed and duplex mode, switching over MDI and MDI-X modes
- Support for VLAN
- 802.1X authentication support
- DHCP client
- Support for LLDP
- Support for ACL
- Support for IPv6

#### **QoS functions**

- Packet priorities and planning based on profiles
- Bandwidth limiting for each SSID
- Modification of WMM parameters for each radio interface

#### **Security**

- Centralized authentication via RADIUS server (WPA Enterprise)
- WPA/WPA2 encryption
- Support for Captive Portal
- E-mail notifications on system events

# Wireless interface parameters

- Frequency range 5150-5850 MHz
- CCK, BPSK, QPSK, 16QAM, 64QAM, 256QAM modulations
- Support for 2x2 MIMO
- 3 integrated Broadcom chips BCM43460 (IEEE 802.11a/n/ac)

## Operating channels<sup>1</sup>

- 802.11a/n/ac: 36-64 (5180-5320 MHz), 100-144 (5500-5720 MHz), 149-165 (5745-5825 MHz)<sup>1</sup>

## Data rate<sup>2</sup>

-802.11ac: 867 Mbps

#### Receiver sensitivity

- 5 GHz: up to -94 dBm

## Maximum power of the transmitter<sup>1</sup>

- 5 GHz: up to 27 dBm<sup>1</sup>

#### **Physical specifications**

- Power consumption up to 40 W
- Processor Broadcom BCM53016/BCM58522
- 128 MB NAND Flash
- 256 MB RAM DDR3
- Power supply:
  - PoE+ 48V/54V (IEEE 802.3at-2009)
  - DC 48V
- Operating temperature from -40°C to +60°C
- Dimensions (WxHxD): 247x97x241 mm

#### **Configuration**

- Software updates and configuration trough DHCP autoprovisioning
- Remote management via Telnet, SSH
- Web interface
- SNMP

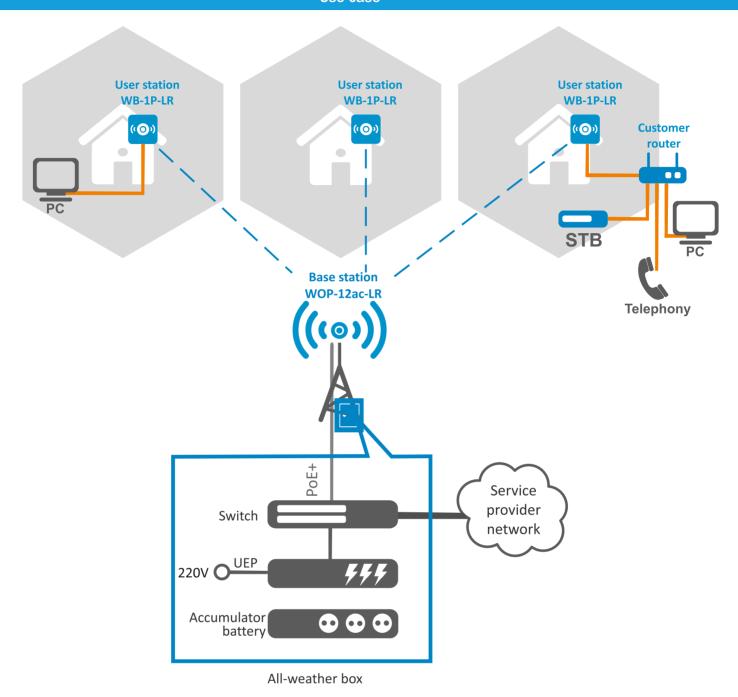
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<sup>&</sup>lt;sup>1</sup> The number of channels and the value of the maximum output power will vary according to the rules of radio frequency regulation in your country.

<sup>&</sup>lt;sup>2</sup> The maximum wireless data rate is defined according to IEEE 802.11n/ac 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



# Ordering information WOP-12ac-LR

Description	Image
Base station WOP-12ac-LR, 802.11a/n/ac, 5 GHz; 3 radio interfaces, MIMO 2x2 each; 2 ports of 10/100/1000Base-T, 6 N-type connectors for external antennas	( a surex)
	Base station WOP-12ac-LR, 802.11a/n/ac, 5 GHz; 3 radio interfaces, MIMO

Contact Us About EltexAlatau







**EltexAlatau** company is one of the first communication equipment manufacturers in Kazakhstan established in 2012. The main focus of the enterprise is a set of solutions and the opportunity of their seamless connection to the customer's infrastructure.