

- High-performance solution based on the **Broadcom** chipset
- Dual band Wi-Fi 802.11ac
- Power supply: PoE+ (IEEE 802.3at)
- Cluster operations without dedicated server (up to 64 devices)
- Seamless roaming
- Up-to-date authentication and encryption means

Outdoor access point

WOP-12ac provides high-performance and safe wireless connection that combines numerous features and services absolutely necessary for convenient network access in crowded areas. WOP-12ac is a proper solution for organization of wireless networks in various climatic conditions—in a wide range of operating temperatures and high humidity (in parks, at factories, stadiums, etc.)—and provides an optimal platform for communication networks organization in suburban settlements and remote locations.

Solution Scalability

The **WOP-12ac** wireless access point is a new flexible solution that allows you to change the network coverage in order to increase the quantity of serviced mobile devices. Due to high-performance hardware platform, scalability features and understandable interface, it is possible to set up wireless IT infrastructure simply and fast.

Wireless Connection

The WOP-12ac provides 1300 Mbps (5GHz) + 450 Mbps (2.4 GHz) data rate as it supports IEEE 802.11n/ac standards. Furthermore, the WOP-12ac supports MIMO technology and has omnidirectional antennas that makes it a universal solution for public networks organization.

Security

WOP-12ac provides secure connection due to the support of up-to-date authentication technologies. Particularly, it uses a dynamic key that is unique for each mobile device that interacts with WOP-12ac.



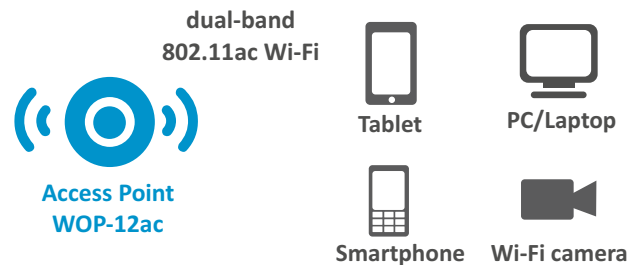
Performance

To ensure a stable and uninterrupted operation, the device is equipped with high-performance **Broadcom** chipsets providing high data processing rates.

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.

Scheme of using



WOP-12ac Interface Configuration

Name	RJ-45	SFP	Wi-Fi	Type N connectors for antennas
WOP-12ac	2x1G	–	802.11a/b/g/n/ac	6
WOP-12ac ER	2x1G	–	802.11a/b/g/n/ac	6
WOP-12ac ER SFP	2x1G	1x1G	802.11a/b/g/n/ac	6
WOP-12ac ER GPON	2x1G	1x1G	802.11a/b/g/n/ac	6

Technical specifications

Interfaces

- 2 x Ethernet 10/100/1000BASE-T (RJ-45)
- 1 x 100/1000BASE-X (SFP) optionally
- 6 x N – type (female) for external antennas (Omni, sector, rod, etc.)
- Console (RJ-45)

WLAN Capabilities

- IEEE 802.11a/b/g/n/ac standard support
- Data aggregation, including A-MPDU (Tx/Rx) and A-MSDU (Rx)
- WMM based packet priorities and planning
- External access point detection
- Dynamic frequency selection (DFS)
- Hidden SSID support
- APSD support
- WDS support
- 32 virtual access points

Network features

- Automatic speed negotiation, duplex mode negotiation, and MDI/MDI-X switch-over
- VLAN support
- 802.1X authentication support
- DHCP client
- LLDP support
- ACL support
- IPv6 support

Cluster mode operation

- Cluster creation with the capacity of up to 64 access points
- Load balancing for multiple access points
- Automatic synchronization of access point configurations in cluster
- Single Management IP—a single address for access point management in cluster
- Automatic frequency channel allocation for multiple access points
- Authentication via RADIUS server

QoS functions

- Profile based packet priorities and planning
- Bandwidth restriction for each SSID
- Modification of WMM parameters for each radio frequency interface

Security

- Centralized authorization via RADIUS server (WPA Enterprise)
- WPA/WPA2 encryption of data
- Captive portal support
- E-mail notifications of system events

Wireless interface specifications

- Frequency range: 2412–2472 MHz, 4900–5850 MHz
- CCK, BPSK, QPSK, 16QAM, 64QAM, 256QAM modulations
- 3x3 MIMO support
- Two integrated Broadcom BCM43460 chips (IEEE 802.11b/g/n/a/ac)

Active Channels

- 802.11b/g/n: 1–13 (2412–2472 MHz)¹
- 802.11a/n/ac: 36–64 (5180–5320 MHz)
100–140 (5500–5720 MHz)
149–165 (5745–5825 MHz)¹

Data transfer rate²

- 802.11n: 450 Mbps
- 802.11ac: 1300 Mbps

Receiver sensitivity

- 2.4 GHz: up to -98 dBm
- 5 GHz: up to -94 dBm

Maximum power of the transmitter

- 2.4 GHz: up to 19 dBm¹
- 5 GHz: up to 19 dBm¹

Physical specifications

- Power consumption below 20W
- Broadcom BCM53016/BCM58522 processor
- 128 MB NAND Flash
- 256 MB RAM DDR3
- Power supply: PoE+ 48V/54V (IEEE 802.3at-2009) 48V DC
- Operating temperature from -40°C to +65°C
- Dimensions (WxHxD): 246x97x216 mm

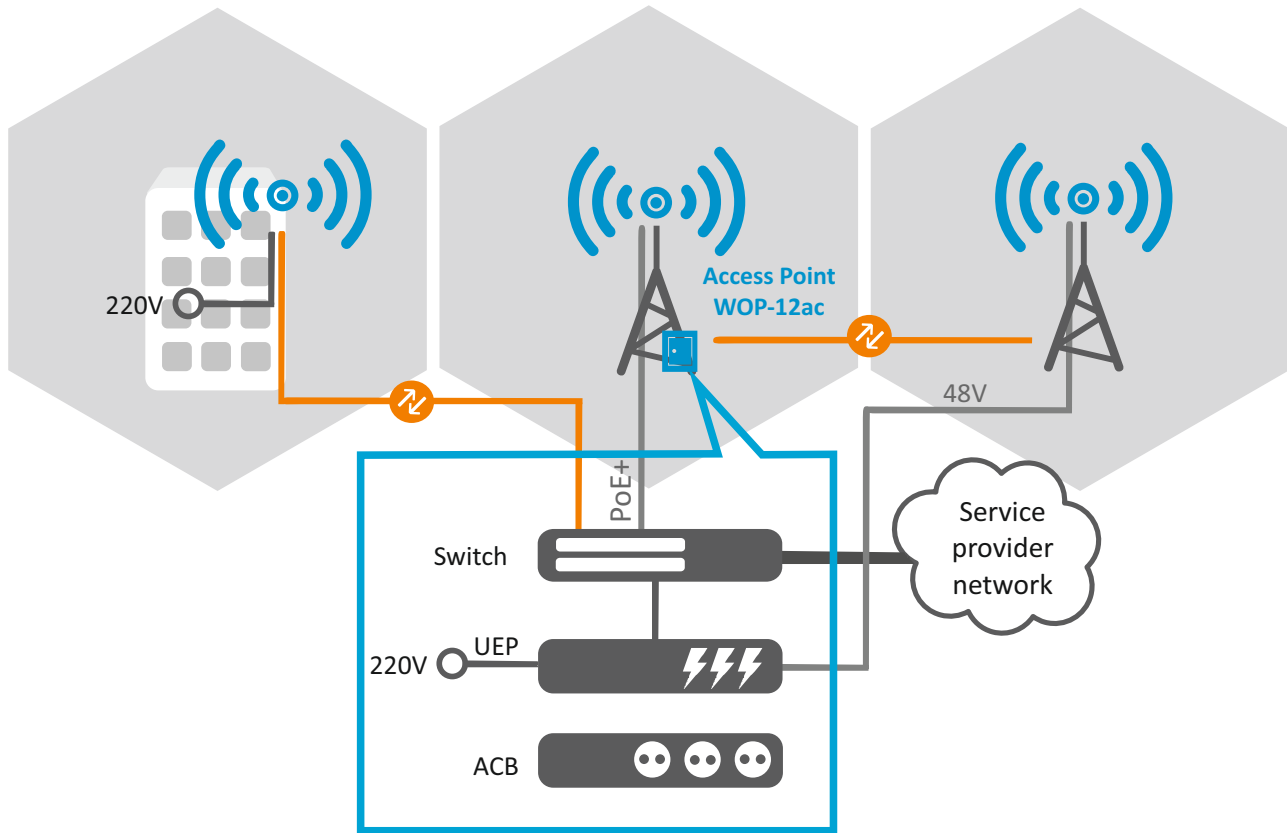
Configuration

- Software updates and configuration through DHCP-autoprovisioning
- Remote control via Telnet, SSH
- Web interface
- SNMP


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 802.11n/ac standard. 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 on the network coverage range.

Application diagram



Ordering information

Name	Description	Image
WOP-12ac	WOP-12ac Wi-Fi access point. Mounting kit. DC power adapter.	
	Omnidirectional antenna: 2.4 GHz (5 dBi); 5 GHz (6 dBi).	
	Sectoral antenna: 2.4 GHz dual polarized antenna, 15 dBi; 5 GHz dual polarized antenna, 18 dBi. A high-quality microwave cable for external antennas connections to radio interfaces is included. The length of the cable is 1.5 meters.	
	Power injector (PoE+) 10/100/1000Base-T.	
	SoftWLC controller. License for 1 access point (demo version for 3 access points)	

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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.