ELTEXALATAU
Integrated networking solutions

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

Wi-Fi Access point WOP-2ac

Outdoor access point

WOP-2ac provides high-performance and safe wireless connection that combines numerous features and services absolutely necessary for convenient network access in crowded areas. WOP-2ac 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 network organization in suburban settlements and remote locations.

Solution scalability

The **WOP-2ac** 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-2ac provides 867 Mbps (5GHz) + 300 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 network organization.

Security

WOP-2ac 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-2ac.

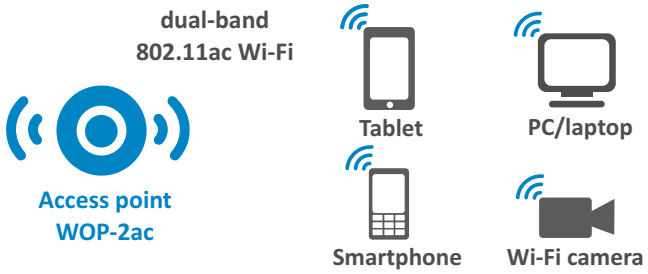
Performance

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

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



Interface configuration WOP-2ac

Name	RJ-45	SFP	Wi-Fi	N-type connectors for antennas
WOP-2ac	1x1G	–	802.11a/b/g/n/ac	4
WOP-2ac SFP	1x1G Combo		802.11a/b/g/n/ac	4
WOP-2ac GPON	–	1x1G	802.11a/b/g/n/ac	4

Features and capabilities

Interfaces
– 1 Ethernet port of 10/100/1000Base-T (RJ-45) - optionally
– 1 Ethernet port of 100/1000Base-X (SFP) - optionally
– 4 N-type (female) connectors for antennas (Omni, sector, panel, etc.)

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

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

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 features
– Packet priorities and planning based on profiles
– 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
– Captive Portal support
– Email notifications on system events

Wireless interface specifications
– Frequency range: 2400 - 2480 МГц, 5150 - 5850 МГц
– CCK, BPSK, QPSK, 16QAM, 64QAM, 256QAM modulations
– 2x2 MIMO
– Two integrated Broadcom chips: BCM47452 (IEEE 802.11a/n/ac) and BCM43217 (IEEE 802.11b/g/n)

Active Channels
– 802.11b/g/n: 1-13 (2412 - 2472 MHz)[1]
– 802.11a/n/ac: 36-64 (5180 - 5320 MHz),
100-144 (5500 - 5720 MHz),
149-165 (5745 - 5825 MHz)[1]

Data rate
– 802.11n: 300 Mbps
– 802.11ac: 867 Mbps

Receiver sensivity
– 2.4 GHz: up to -98 dBm
– 5 GHz: up to -94 dBm

Maximum power of the transmitter
– 2.4 GHz: up to 18 dBm[1]
– 5 GHz: up to 21 dBm[1]

Physical specifications
– Power consumption below 19.5 W
– Broadcom BCM47452 processor
– 128 MB NAND Flash
– 256 MB RAM DDR3
– Power supply: PoE+ 48V/54V (IEEE 802.3at-2009)
– Operating temperature from -40℃ to +65℃
– Dimensions (WxHxD): 200x227x48 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.

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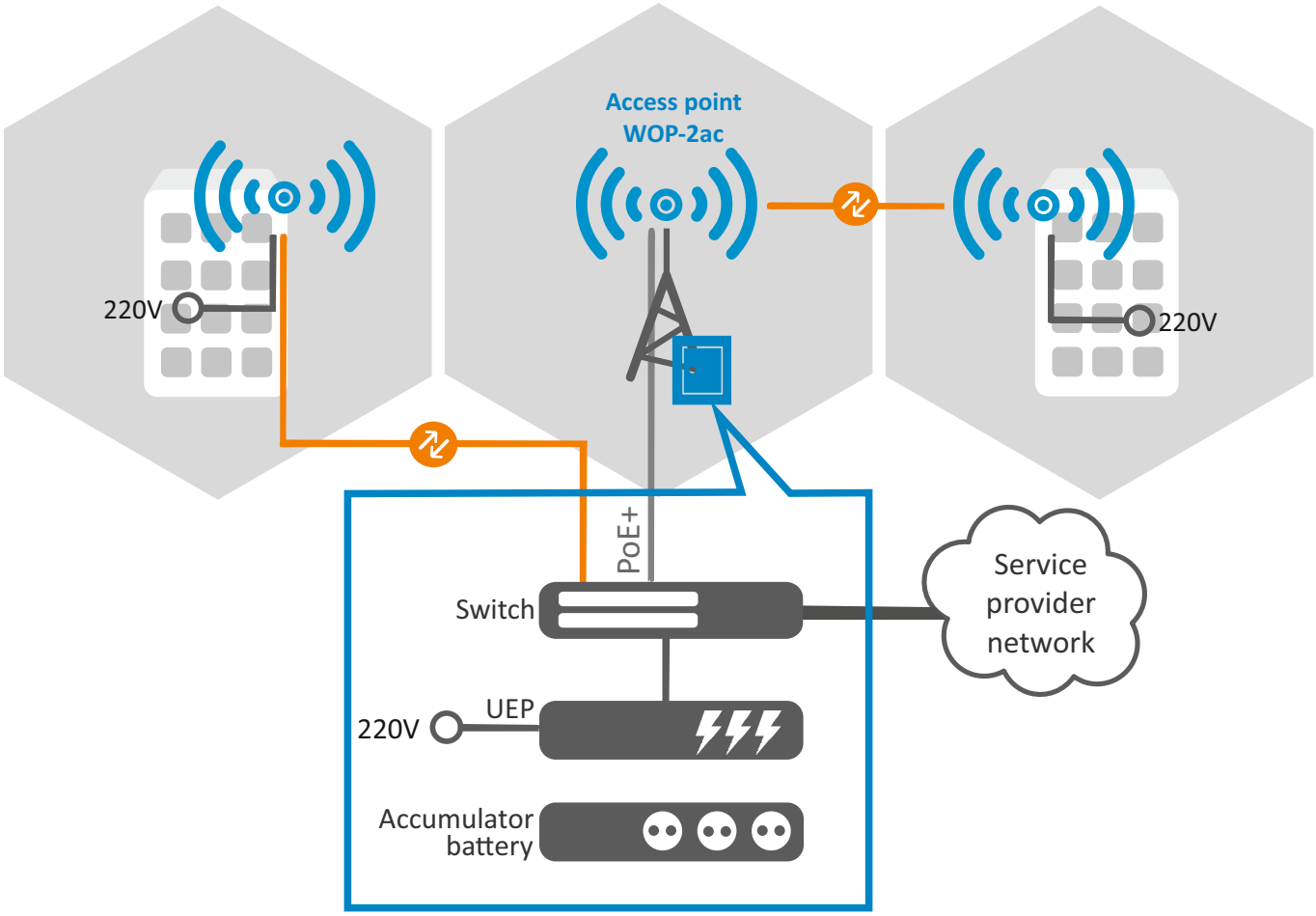
Use case



Ordering information

Name	Description	Image
WOP-2ac	WOP-2ac access point. Mounting kit.	
	Omni-directional antenna: 2.4 GHz (5 dBi); 5 GHz (6 dBi).	
	Sector antenna: 2.4 GHz dualpolarized antenna, 15 dBi; 5 GHz dualpolarized 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.