

- Support for 802.11ax (5G Wi-Fi)
- Radio interface with MU-MIMO 2x2
- Transmitter power up to 27 dBm
- Built-in antenna 9 dBi
- Real throughput up to 1300 Mbps
- Access point and client modes
- Distance up to 4 km without offset parabolic antenna
- Distance up to 34 km with offset parabolic antenna
- Passive PoE 24 V
- Reset button on the power injector
- Support for TDD



* Offset antenna is not included in the supply package

Wireless bridge

WB-3P-PTP5 is a new generation Wi-Fi 6 device, designed to provide modern high-speed services. The device is a universal solution for organizing radio bridges in various climatic conditions within a wide range of operating temperatures and high humidity.

Wireless connection

Due to support for IEEE 802.11ax standard the WB-3P-PTP5 wireless bridge provides up to 2402 Mbps data rate. The offset parabolic antenna makes WB-3P-PTP5 a universal solution for organizing radio bridges over long distances.

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) technology.

Security

To ensure a secure connection, modern authentication and encryption technologies are supported. WPA3 encryption is used, as well as centralized authorization via a RADIUS server (802.1X WPA3 Enterprise).

To manage the wireless bridge, access rights are divided by roles with the ability to authenticate using a local account, as well as via a RADIUS server.

Power supply

The Passive PoE technology makes installation of the equipment possible virtually everywhere, regardless of the power supply location. That reduces total cost by discarding power cables and makes installation easier and faster.

Interface configuration

Ethernet	Wi-Fi
1x1G	802.11a/n/ac/ax

Use case



Features and capabilities

Interfaces

- 1 port of 10/100/1000BASE-T (RJ-45) with PoE support
- Wi-Fi 5 GHz IEEE 802.11a/n/ac/ax

WLAN capabilities

- Support for IEEE 802.11a/n/ac/ax
- Data aggregation, including A-MPDU (Tx/Rx) and A-MSDU (Rx)
- WMM-based packet priorities and planning
- Dynamic Frequency Selection (DFS)
- Access point (AP-PTP/AP-PMP) mode
- Wireless client (STA) mode
- Auto-distance detection
- Automatic transmitter power control
- Support for hidden SSID
- Support for MAC ACL
- Third-party access points detection
- Support for APSD
- Channel list limiting
- Spectrum analyzer
- Fixed center frequency support
- TDD
- Antenna alignment

Network features

- Automatic negotiation of speed and duplex mode
- VLAN (Access, Trunk, General)
- C-VLAN
- 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 authorization via RADIUS server (802.1X WPA/WPA2/WPA3 Enterprise)
- WPA/WPA2/WPA3/OWE encryption
- Authorization via RADIUS server when logging
- Secure user authentication system when logging

Configuration

- Remote management via Telnet, SSH
- Web interface
- CLI
- NETCONF
- SNMP

Regulatory Compliance

- CE marked:
 - EN IEC 62311:2020
 - EN IEC 62368-1:2024 + A11:2024
 - ETSI EN 301 489-1 V2.2.3 (2019-11)
 - ETSI EN 301 489-3 V2.3.2 (2023-01)
 - ETSI EN 301 489-17 V3.3.1 (2024-09)
 - EN 55032:2015+A1:2020
 - EN 55035:2017+A11:2020
 - EN IEC 61000-3-2:2019+A2:2024
 - EN 61000-3-3:2013+A2:2021
 - ETSI EN 301 893 V2.1.1 (2017-05)
 - ETSI EN 300 440 V2.2.1 (2018-07)

Wireless interface specifications

- Frequency range 5150–5975 MHz
- BPSK, QPSK, 16QAM, 64QAM, 256QAM, 1024QAM modulations
- Built-in sector antenna
- Support for MU-MIMO 2x2
- Support for OFDMA
- Bandwidth: 5, 10, 20, 40, 80, 160 MHz
- Channel selection with 5 MHz increment

Operating channels¹

- 802.11a/n/ac/ax: 32–193 (5150–5975 MHz)

Data rate²

- 802.11ax: 2402 Mbps

Maximum power of the transmitter¹

- 5 GHz: 27 dBm

Antenna parameters

- Gain: 9 dBi
- Linear polarization: H/V
- SWR: no more than 2
- Beam width (H): 65°
- Beam width (V): 65°

Receiver sensitivity

- 5 GHz: up to -96 dBm

Number of clients

- Recommended number of clients: 5
- Maximum number of connections: 64

Physical specifications

- Power consumption: no more than 11.5 W
- 128 MB SPI-NAND Flash
- 256 MB DDR3 RAM
- Power supply: Passive PoE 24 V
- Operating temperature: -45 to +65 °C
- Ingress protection: IP67
- Dimensions (W × H × D):
 - 120 × 110 × 89 mm
 - 120 × 110 × 144 mm (with cable gland)
- Weight: 0.31 kg
- Pole/wall mount, in a holder of an offset parabolic antenna

¹The number of channels and the value of the maximum output power will vary according to the rules of radio frequency regulation in your country.

²The 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.

Ordering information

Name	Description
WB-3P-PTP5	WB-3P-PTP5 wireless bridge. Passive PoE 24 V injector, power cable.
WB-3P-PTP5 with pole/wall mounting kit	WB-3P-PTP5 wireless bridge. Passive PoE 24 V injector, power cable, pole/wall mounting kit.
WB-3P-PTP5 with an offset parabolic antenna	WB-3P-PTP5 wireless bridge. Passive PoE 24 V injector, power cable, offset parabolic antenna with reflector size 450 × 495 mm.

Related products

SSM-AC	Passive PoE injector, SSM-240-1000A-RS, 1G, 24 V, 1 A.
KU45/50CM	Offset antenna kit with bracket for radio bridges, 25 dBi.
AC-02	Pole/wall mounting bracket for radio bridges for WB-3P-PTPx.

Management systems

ECCM	ECCM option for one device. The management system designed for inventory, management, and monitoring of Eltex network equipment.
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About Eltex


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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