— **Tri-band access point**
— **Support for 802.11be**
— **Radio interface with MU-MIMO 4×4**
— **Multi-Link Operation (MLO)**
— **PoE++ (IEEE 802.3bt-2018) power supply**
— **Seamless roaming**



Solution for enterprises

WEP-550K is a next-generation Wi-Fi 7 access point, that delivers maximum throughput and stable wireless connection for connected devices. Operating in three bands — 2.4, 5, and 6 GHz — allows efficient use of available radio bandwidth, reduces interference, and ensures high performance for a large number of clients. With high speed, low latency, energy efficiency and increased throughput, the WEP-550K access point supports a wide range of devices and applications that require maximum performance in demanding enterprise environments.
Compared to previous generation solutions, WEP-550K provides significantly higher data transfer rates and improved performance in high-density environments.

Scalability

The WEP-550K wireless access point provides network flexibility and scalability, enabling easy adaptation of the infrastructure to growing number of users and devices. The high-performance hardware platform, wide channels of up to 320 MHz, 4096-QAM support, and MU-MIMO 4x4 technology ensure stable network operation even under heavy loads.

Wireless connection

With IEEE 802.11be support and tri-band operation (2.4/5/6 GHz), the WEP-550K access point delivers significantly increased data transfer rates of 1376 Mbps (2.4 GHz) + 5765 Mbps (5 GHz) + 11530 Mbps (6 GHz) and lower latency than Wi-Fi 6 devices. Multi-Link Operation (MLO) technology allows devices to simultaneously use multiple frequency bands and channels, increasing speed, reliability, and reducing connection latency. The use of MU-MIMO and omnidirectional antennas makes WEP-550K a versatile solution for corporate networks.

Safety

For corporate environments, modern WPA3 authentication and encryption mechanisms are supported, ensuring personal data protection and corporate network security. WEP-550K is compatible with earlier 802.11 standards, simplifying integration into the existing infrastructure.

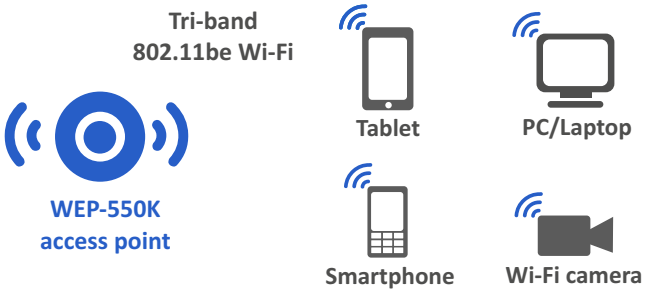
Performance

Thanks to a high-performance hardware platform and optimized operating algorithms, WEP-550K ensures stable operation under maximum load, supporting dozens of simultaneously active clients without reducing data transfer speed.

Power supply

The PoE++ (802.3bt) technology provides power to the device via the network cable and makes installation possible anywhere, regardless of the availability of power outlets. Compatibility with PoE+ (802.3at) provides flexibility for integration into the existing infrastructure, reduces total cost by discarding power cables and makes installation easier and faster.

Application diagram



Interface configuration

Ethernet	Wi-Fi
1×10G	802.11a/b/g/n/ac/ax/be
1×2.5G	

Features and capabilities

Interfaces
– 1 port of 100M/1G/2.5G/5G/10G BASE-T (RJ-45) with PoE support
– 1 port of 100M/1G/2.5G BASE-T (RJ-45)
– Wi-Fi 2.4 GHz IEEE 802.11b/g/n/ax/be
– Wi-Fi 5 GHz IEEE 802.11a/n/ac/ax/be
– Wi-Fi 6 GHz IEEE 802.11ax/be

WLAN capabilities
– Support for IEEE 802.11a/b/g/n/ac/ax/be
– Support for IEEE 802.11r/k/v roaming
– Data aggregation, including A-MPDU and A-MSDU
– WMM-based packet priorities and planning
– Dynamic frequency selection (DFS)
– Support for hidden SSID
– Auto channel selection
– 48 virtual access points

Network features
– Automatic speed negotiation, duplex mode negotiation and MDI-MDI-X switch-over
– VLAN support
– C-VLAN support
– DHCP client
– GRE
– Local switching
– NTP
– Syslog
– LLDP

QoS functions
– Packet priorities and planning based on profiles
– Bandwidth limitation
– Support for 802.1p and DSCP prioritization

Configuration
– Remote management via Telnet, SSH
– CLI
– NETCONF
– Web interface

Security
– Centralized authorization via RADIUS server (802.1X WPA/WPA2/WPA3 Enterprise)
– WPA/WPA2/WPA3/OWE encryption
– Support for Captive Portal
– Support for WIDS[1]

Wireless interface specifications
– Frequency range: 2400–2483.5 MHz, 5150–5350 MHz, 5470–5850 MHz, 5935–7125 MHz
– BPSK, QPSK, 16QAM, 64QAM, 256QAM, 1024QAM, 4096QAM modulations
– Built-in omnidirectional antennas
– Support for MU-MIMO 4×4
– Multi-Link Operation (MLO)
– Support for OFDMA
– Bandwidth: 20, 40 MHz for 2.4 GHz
20, 40, 80, 160 MHz for 5 GHz
20, 40, 80, 160, 320 MHz for 6 GHz

Operating channels[2]
– 802.11b/g/n/ax/be: 1–13 (2401–2483 MHz)
– 802.11a/n/ac/ax/be: 36–64 (5170–5330 MHz)
100–144 (5490–5730 MHz)
149–165 (5735–5835 MHz)
– 802.11ax/be: 1–233 (5935–7125 MHz)

Data rate[3]
– 2.4 GHz, 802.11be: 1376 Mbps
– 5 GHz, 802.11be: 5765 Mbps
– 6 GHz, 802.11be: 11530 Mbps

Maximum power of the transmitter[2]
– 2.4 GHz: 21 dBm
– 5 GHz: 21 dBm
– 6 GHz: 21 dBm

Built-in antenna gain
– 2.4 GHz: ~4 dBi
– 5 GHz: ~6 dBi
– 6 GHz: ~3 dBi

Receiver sensitivity
– 2.4 GHz: up to -93 dBm
– 5 GHz: up to -94 dBm
– 6 GHz: up to -94 dBm

Clients
– Maximum number of concurrent connections: 1024

Physical specifications
– Power consumption: no more than 33 W
– 256 MB SPI-NAND Flash
– 1 GB DDR4 RAM
– Operating temperature: from +5 to +40 °C
– Dimensions (diameter × height): 280 × 64.5 mm
– Weight: 1.8 kg
– Armstrong, threaded rod, ceiling/wall mount
– VESA size: 100 × 100

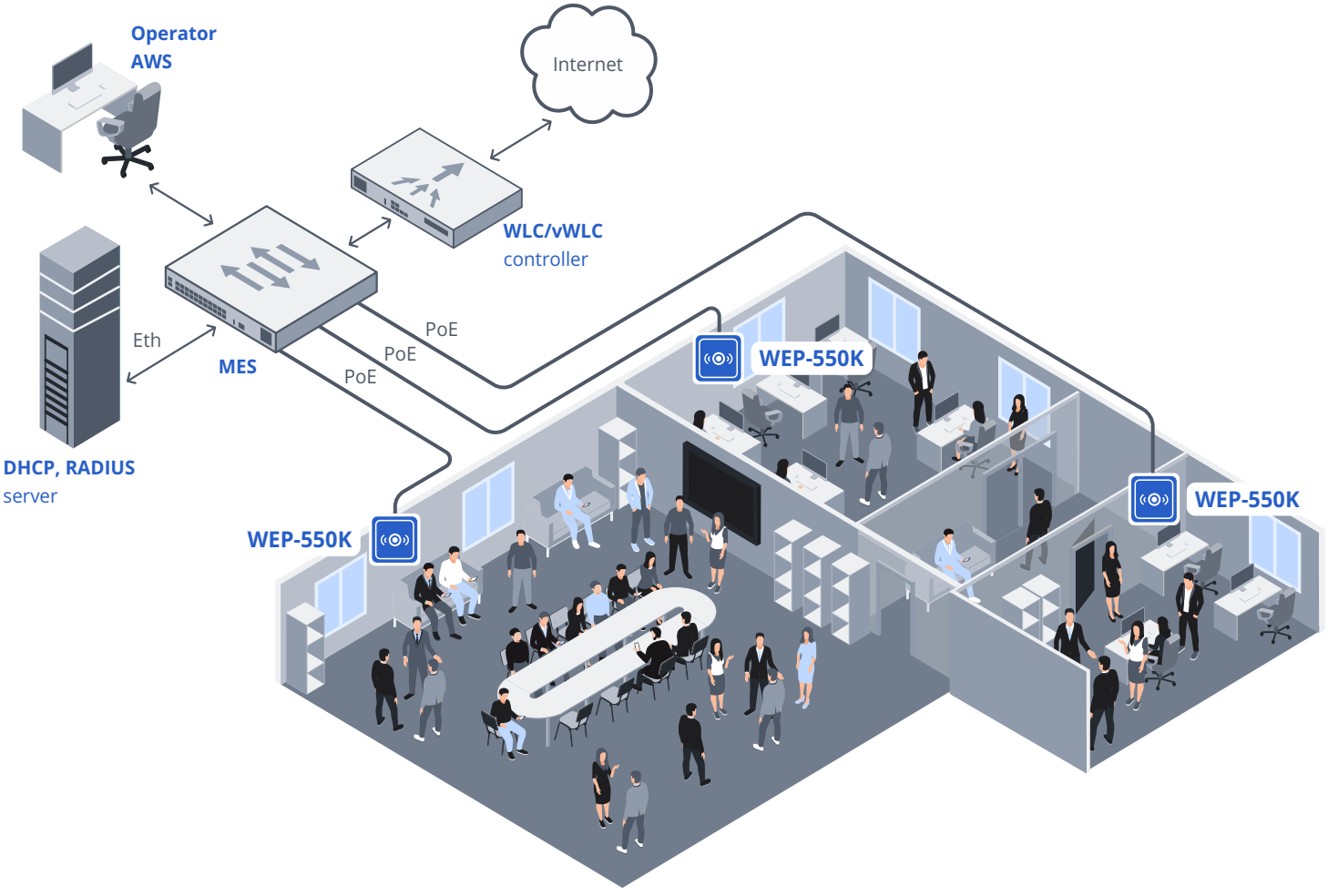
[1]Support for WIDS functionality is provided under license.
[2]The number of channels and the value of the maximum output power will vary according to the rules of radio frequency regulation in your country.
[3]The maximum wireless data rate is defined according to IEEE 802.11 standards. The real bandwidth 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.

Features and capabilities (continued)

Power supply

Power supply source	PoE class	Wi-Fi			Ethernet		Maximum power consumption, W
		2.4 GHz	5 GHz	6 GHz	10GE	2.5GE	
802.3bt (PoE++)	5	4×4	4×4	4×4	10G	2.5G	33
802.3at (PoE+)	4	2×2	2×2	2×2	2.5G	-	20
Unclassified	-	2×2	2×2	2×2	2.5G	-	20

Use case



Ordering information

Name	Description
WEP-550K	WEP-550K access point. Mounting kit.
Related products	
PPP-AC	PoE++ injector, 10G, 54.5 V, 1.66 A.
SSM-560-1000A-2.5G	Passive PoE Injector, SSM-560-1000A-2.5G, 2.5G, 56 V, 1 A.
Wi-Fi controllers	
WLC hardware controller	WLC-15, WLC-30, WLC-3200, WLC-3250, WLC-3350.
vWLC virtual controller	vWLC-AP option for connecting one access point to a vWLC controller. vWLC-AP-R option for connecting one access point to a redundant vWLC controller.

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About Eltex

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.