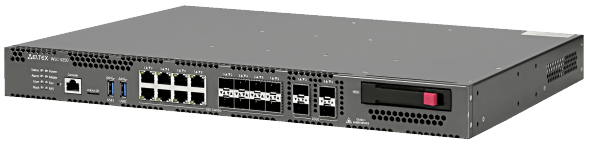
– Number of access points:[1]
1000 for WLC-3200, 3000 for WLC-3250 and 5000 for WLC-3350
– Access points monitoring
– WPA/WPA2/WPA3 Enterprise,
WPA/WPA2/WPA3 Personal user authorization



WLC-3200

WLC-3200, WLC-3250, **WLC-3350** are enterprise-level controllers for small- and medium-sized enterprises. The devices allow building distributed wireless networks using different traffic scenarios at L2/L3 level. Firewall features are supported on WLC controllers to ensure network security. The devices can be used to create various user authorization scenarios for corporate and guest networks. LDAP, RADIUS and other corporate services are also available.
Built-in AirTune module allows managing radio parameters of access points (AP) and client balancing, as well as adapting to the current environment. Seamless roaming support (802.11r/k/v) provides the best conditions for client switching between AP.



WLC-3250



WLC-3350

Technical features

	WLC-3200	WLC-3250	WLC-3350
Interfaces			
Combo 10/100/1000BASE-T/1000BASE-X (SFP)	–	8	8
1000BASE-X/10GBASE-R/25GBASE-R (LAN/WAN)	12	4	4
Console (RJ-45)		1	
OOB	1	–	–
USB 3.0	–	2	2
USB 2.0	1	–	–
HDD slot		1	
microSD card slot		1	
Number of CPUs by role			
Management CPU		0	
Service CPU	1–23	1–7	1–23
Switching			
Interfaces	bridge – 500 sub – 2048 QinQ – 2048		
LLDP	interfaces port policies – 8 network policies – 64		
Label switching			
MPLS	LDP neighbors – 1024 pseudowires – 1024 pseudowire classes – 64 Ethernet over MPLS – 256		

[1] Expansion of access points number is available under license: up to 3000 APs for WLC-3200, up to 5000 APs for WLC-3250, up to 7000 APs for WLC-3350.

Technical features (continued)

	WLC-3200	WLC-3250	WLC-3350
System features			
Access points number[1]	1000	3000	5000
Maximum clients number	30000	70000	100000
Static routes	11K		
Concurrent sessions	512K	8.5M	
VLAN support	up to 4094 active VLANs according to 802.1Q		
MAC table	16K entries per bridge		
FIB size	1.7M		
VRF	32		
Object-groups			
Object-group network	instances – 500 ip prefixes in group – 1024 ip ranges in group – 1024		
Object-group address:port	instances – 500 address:port in group – 64		
Object-group service	instances – 500 port ranges in group – 64		
Object-group application	instances – 50 apps in group – 128		
Object-group content filter	instances – 64 categories per vendor – 500		
Object-group URL	instances – 31 plain URL in group – 128 regex URL in group – 128		
Object-group MAC	instances – 500 macs in group – 64		
Routing			
BGP	instances – 64 networks in instance – 128 neighbors – 1k RIB – 5M		
OSPFv3	instance, neighbors in interface – 64 summaries in instance – 128 areas – 256 networks in area – 64 virtual links – 1024 RIB – 500k		
IS-IS	instances, circuits – 64 RIB – 500k		
RIP(ng)	neighbors – 16 summaries – 8 networks – 128 RIB – 10k		

[1] Expansion of access points number is available under license: up to 3000 APs for WLC-3200, up to 5000 APs for WLC-3250, up to 7000 APs for WLC-3350.

Technical features (continued)

	WLC-3200	WLC-3250	WLC-3350
Quality of Service (QoS)			
QoS limitations	class-maps – 1024 policy-maps – 1024 classes in policy-map – 3072		
Tunneling			
VPN tunnels	IPIP – 500 GRE – 500 Ethernet over GRE – 500 GRE SUB – 500 SoftGRE – 4000 SoftGRE SUB – 4000 L2TPv3 – 500 LT – 128 IPsec VTI – 500	IPIP – 500 GRE – 500 Ethernet over GRE – 500 GRE SUB – 500 SoftGRE – 5000 SoftGRE SUB – 10000 L2TPv3 – 500 LT – 128 IPsec VTI – 500	IPIP – 500 GRE – 500 Ethernet over GRE – 500 GRE SUB – 500 SoftGRE – 7000 SoftGRE SUB – 14000 L2TPv3 – 500 LT – 128 IPsec VTI – 500
IPsec VPN tunnels	64	500	500
Remote access			
Remote Access	L2TP concurrent connections – 10 PPTP concurrent connections – 10 OpenVPN concurrent connections – 10 OpenVPN remote addresses per connection – 8 OpenVPN concurrent users – 64		
WireGuard tunnel, RA	instance – 16 peers per instance – 256 local addresses – 1 addresses per peer (address-range & obj-group) – 10k		
Services			
Source NAT	ruleset – 100 rules in ruleset – 100 pool – 100	pools – 1024 pool size – 1024 static address in pool – 1024	
Destination NAT	ruleset – 100 rules in ruleset – 100 pool – 100	pools – 1024 pool size – 1024 static address in pool – 1024	
DHCP Server	pools – 100 pool size – 10k static address in pool – 128	pools – 1024 pool size – 1024 static address in pool – 1024	
Security			
ACL	instances – 1533 rules – 1533		
Firewall	zone – 128 zone-pair – 512 rules – 10k		
IPS	user update servers – 32 ips-categories – 20 rules – 500		
IKE (v1/v2), IPsec (esp/ah) encryption algorithms			
Authentication	md5, sha1, sha2-256, sha2-384, sha2-512		
Encryption	des, blowfish128, aes128, camellia128, aes128ctr (IKEv2 only), blowfish192, aes192, camellia192, 3des, aes192ctr (IKEv2 only), blowfish256, aes256, camellia256, aes256ctr (IKEv2 only)		
Diffie Hellman	Regular Groups: 1,2,5,14-18. Modulo Prime Groups with Prime Order Subgroup: 22-24. NIST Elliptic Curve Groups: 19-21, 25-26. Brainpool Elliptic Curve Groups: 27-30. Elliptic Curve 25519: 31		

Technical features (continued)

	WLC-3200	WLC-3250	WLC-3350
Physical specifications and environmental parameters			
RAM	24 GB DDR4	32 GB DDR4	
Flash memory	8 GB eMMC	256 GB eMMC	256 GB eMMC
Maximum power consumption	118 W	74 W	110 W
Power supply	100–240 V AC, 50–60 Hz; 36–72 V DC (up to 2 hot-swappable power modules)		200–240 V AC, 50–60 Hz; 36–72 V DC (up to 2 hot-swappable power modules)
Operating temperature	from -10 to +45 °C		
Storage temperature	from -40 to +70 °C		
Operating humidity	no more than 80 %		
Storage humidity	from 10 to 95 %		
Dimensions (W × H × D)	430 × 44 × 330 mm	430 × 43.6 × 329 mm	430 × 43.6 × 424 mm
Weight	6.1 kg	4.232 kg	5.638 kg
Lifetime	no less than 15 years		

Features and capabilities

Access points management

– WPA/WPA2/WPA3[1] Personal
– WPA/WPA2/WPA3[1] Enterprise
– OWE[1] open network
– Local collecting of user account information[2]
– Collecting user account information to an external RADIUS server
– IEEE 802.11r/k/v standard seamless roaming
– Integration with external portals[3]
– Automatic management of radio environment resources
– Access point authorization by certificate

Supported access points

– WEP-1L
– WEP-2L
– WEP-3L
– WEP-200L
– WEP-30L
– WEP-30L-Z
– WEP-3ax
– WEP-50L
– WEP-500K
– WEP-550K
– WOP-2L
– WOP-20L
– WOP-3L-EX
– WOP-30L
– WOP-30LI
– WOP-30LS
– WOP-50L
– WEP-2ac
– WEP-2ac Smart
– WOP-2ac
– WOP-2ac rev.B
– WOP-2ac rev.C

Switching

– Up to 4094 VLAN (802.1Q)
– Voice-VLAN
– Q-in-Q (802.1ad)
– MAC-based VLAN
– Bridge domain
– LAG/LACP (802.3ad)
– Port-security, protected port
– Jumbo-frames

MPLS

– LDP
– L2VPN VPWS
– L2VPN VPLS Martini Mode, Kompella Mode
– L3VPN MP-BGP (Option A, B, C)
– L2VPN/L3VPN over GRE, DMVPN
– Transparent transfer of service protocols

Routing

BGP:

– Address family: IPv4, IPv6, VPNv4, L2VPN, IPv4 label-unicast, Flow-spec
– Flexible management of route information by attributes. Support for Conditional Advertisement, Route Aggregation and Local-AS mechanisms
– High scalability and configuration flexibility: support for peer-group, dynamic neighbor, as-range and Route-reflector

[1] WPA3 and OWE are supported for WEP-3ax, WEP-3L, WEP-30L, WEP-30L-Z, WEP-500K, WEP-550K, WOP-30L, WOP-30LI, WOP-30LS APs.
[2] The features will be available in future firmware versions.
[3] Operation with ELTEX-NAICE, WNAM Netams, Cisco ISE is tested.

Features and capabilities (continued)

– High scalability and configuration flexibility: support for peer-group, dynamic neighbor, as-range and Route-reflector
– Fall over based on BFD and Fast Error Peer Detection
– Graceful restart
– Authentication
– Flexible redistribution from/to BGP process of other protocol routes
– Ability to run up to 64 processes simultaneously
– ECMP
– Support for policy-based routing

OSPF(v3):
– Different types of zones: Normal, Stub, Totally stub, NSSA, Totally NSSA
– Operation in different types of networks: Broadcast, NBMA, Point-to-point, Point-to-multipoint, Point-to-multipoint non-broadcast
– Summarization and filtering of route information
– Authentication
– ECMP
– Passive interface
– Flexible redistribution from/to OSPF process of other protocol routes
– Ability to run up to 64 processes simultaneously
– Support for BFD
– Auto cost calculation mechanism
– Support for policy-based routing

IS-IS:
– Operation in different types of networks: Broadcast, Point-to-point
– Setting the neighbourhood of L1/L2 layers
– Metric style: narrow, wide, transition
– Authentication
– Filtering of route information
– Flexible redistribution from/to IS-IS process of other protocol routes
– Ability to run up to 64 processes simultaneously
– Support for policy-based routing

RIP(ng):
– Operation modes (RIP only): Broadcast, Multicast, Unicast
– Summarization and filtering of route information
– Managing route metrics
– Authentication
– Passive interface
– Flexible redistribution from/to RIP process of other protocol routes
– Support for policy-based routing

Static:
– Support for BFD
– Recursive search
– Managing route metrics
– Ability to select the option of notifying the sender when traffic is blocked

Quality of Service (QoS)
– Up to 8 priority or weighted queues per port
– L2 and L3 traffic prioritization (802.1p (CoS), DSCP, IP Precedence (ToS))
– Hierarchical QoS
– Queue management: RED, GRED, SFQ, CBQ, WFQ, WRR
– Session labeling
– Bandwidth management (policing, shaping)

IPsec
– Policy-based and route-based modes
– Incapsulation modes: tunnel and transport
– Authentication pre-shared key, public key, xauth (ikev1 only), eap (ikev2)
– Support for mobike (ikev2 only)
– Support for ike ikering

Remote Access
– PPTP, L2TP over IPsec, OpenVPN, WireGuard
– PPPoE/PPTP/L2TP client
– User authentication
– Connection encryption

Security
– Access Control Lists (ACL) based on L2/L3/L4 fields
– Zone-based Firewall in two modes: stateful and stateless. Rule triggering logging, counters
– Filtering by applications
– Protection against DoS/DDoS/Spoof attacks and their logging
– Intrusion Detection/Prevention system (IPS/IDS) and their logging[1]
– Signature analysis via IPS in two modes: transit and mirrored traffic analysis[1]
– Interaction with Eltex Distribution Manager to obtain licensed content: rule sets provided by Kaspersky SafeStream II[2]

[1] Activated by a license.
[2] Rule sets are available by subscription. The minimum subscription period is 1 year.

Features and capabilities (continued)

Monitoring and management

– Support for standard and extended SNMP MIB, RMONv1
– Zabbix agent/proxy
– Authentication methods: RADIUS, TACACS+, LDAP
– Protection against configuration errors, automatic configuration recovery
– CLI, Syslog
– System resource usage monitoring
– Ping, monitor, traceroute (IPv4/IPv6), packet information in the console output
– Firmware upgrade, configuration upload and download via TFTP, SCP, FTP, SFTP, HTTP(S)
– Support for NTP
– Netflow v5/v9/v10 (exporting of URL statistics for HTTP, host for HTTPS)
– Local control via RS-232 (RJ-45) and OOB[1]
– Remote control, WEB, Telnet and SSH (IPv4/IPv6)
– LLDP, LLDP MED
– Local/remote router configuration storage

SLA

– SLA-responder for Cisco-SLA-agent
– Eltex SLA:
  – Delay (one-way/two-way)
  – Jitter (one-way/two-way)
  – Packet loss (one-way/backward/two-way)
  – Packet Error Rate
  – Out-of-order delivery (one-way/backward/two-way)

Redundancy and clustering

– VRRP v2, v3
– Tracking based on VRRP or SLA test
– Managing VRRP parameters
– Managing PBR parameters
– Managing the administrative status of the interface
– Activating and deactivating a static route
– Managing AS-PATH and preference attributes in a route-map
– DHCP failover to reserve the IP address database issued by the DHCP server
– Failover Firewall to reserve Firewall and NAT sessions
– MultiWAN
– Dual-Homing
– Certificate synchronization
– WLC state synchronization

Fault-tolerant cluster:

– Easy administration and integration: synchronization of configurations, time, versions, licences; Zero Touch Provisioning (ZTP)
– Redundancy of all connections in the cluster
– Router redundancy (in current version 1+1 redundancy is supported)

Services

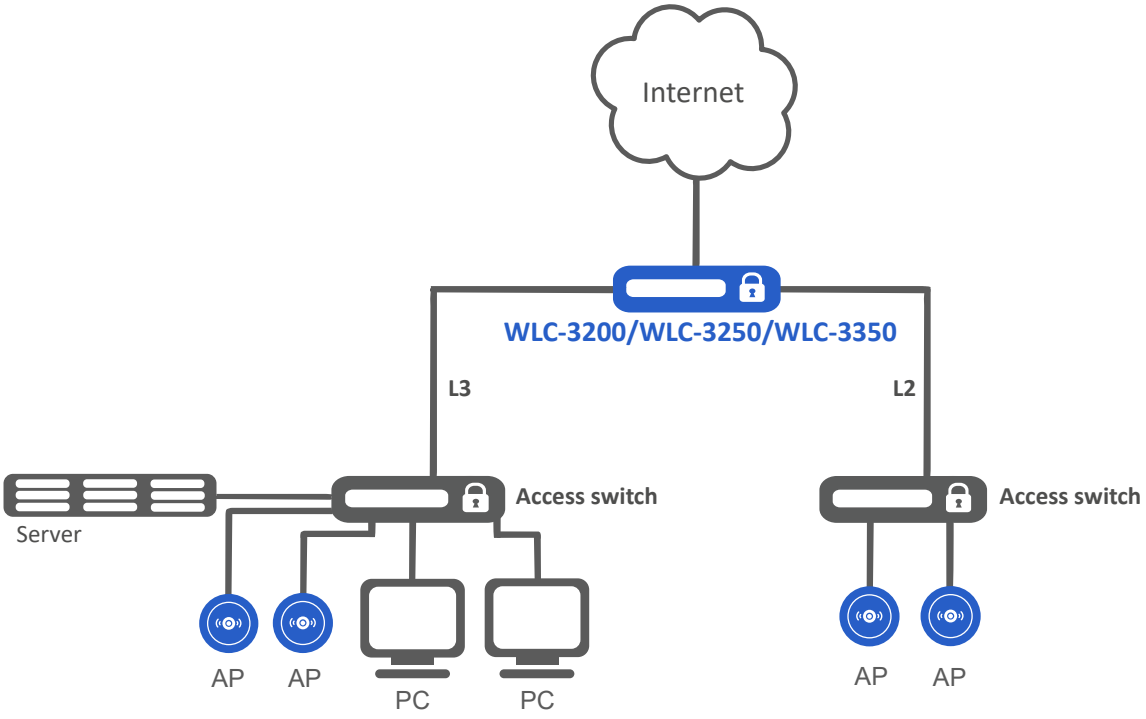
– DHCP client, DHCP server
– DHCP Relay Option 82
– DNS resolver
– NTP
– TFTP-сервер
– E1/multilink, modems

BRAS (IPoE)[2]

– Subscriber termination
– White/black URL lists
– Quotas for traffic volume, session time, network applications
– HTTP/HTTPS Proxy
– HTTP/HTTPS Redirect
– Session accounting via Netflow protocol
– Interaction with AAA, PCRF servers
– Bandwidth management by offices, SSIDs and user sessions
– User authentication by MAC or IP address

[1] Applicable for WLC-3200.
[2] Activated by a license.

Use case in the corporate network



Ordering information

Name	Description
WLC-3200	WLC-3200 wireless access controller, 12 × 1000BASE-X/10GBASE-R/25GBASE-R, 1 × Console (RJ-45), 1 × OOB, 1 × USB 2.0, 1 × HDD slot, 1 × microSD card slot, 24 GB DDR4 RAM, 8 GB eMMC, 2 slots for 100–240 V AC or 36–72 V DC power modules
WLC-3250	WLC-3250 wireless access controller, 8 × Combo 10/100/1000BASE-T/1000BASE-X (SFP), 4 × Ethernet 1000BASE-X/10GBASE-R/25GBASE-R, 1 × Console (RJ-45), 2 × USB 3.0, 1 × HDD slot, 1 × microSD card slot, 32 GB DDR4 RAM, 256 GB eMMC, 2 slots for 100–240 V AC or 36–72 V DC
WLC-3350	WLC-3350 wireless access controller, 8 × Combo 10/100/1000BASE-T/1000BASE-X (SFP), 4 × 1000BASE-X/10GBASE-R/25GBASE-R, 1 × Console (RJ-45), 2 × USB 3.0, 1 × HDD slot, 1 × microSD card slot, 32 GB DDR4 RAM, 256 GB eMMC, 2 slots for 200–240 V AC or 36–72 V DC
Related software	
WLC-AP	WLC-AP option to extend the built-in license on a WLC controller for one access point
WLC-AP-R	WLC-AP-R option for extending the built-in license for plug-in access points to a backup WLC-series controller for a single access point

Ordering information (continued)

Related software	
WIDS/WIPS-WLC-3200	WIDS/WIPS-WLC-3200 option: wireless intrusion detection and prevention service for the WLC-3200 controller
WIDS/WIPS-WLC-3200-R	WIDS/WIPS-WLC-3200-R option: wireless intrusion detection and prevention service for the WLC-3200 standby controller
WLC-WIDS-WIPS-3250	WIDS/WIPS-WLC-3250 option: wireless intrusion detection and prevention service for the WLC-3250 controller
WIDS/WIPS-WLC-3250-R	WIDS/WIPS-WLC-3250-R option: wireless intrusion detection and prevention service for the WLC-3250 standby controller
WLC-WIDS-WIPS-3350	WIDS/WIPS-WLC-3350 option: wireless intrusion detection and prevention service for the WLC-3350 controller
WIDS/WIPS-WLC-3350-R	WIDS/WIPS-WLC-3350-R option: wireless intrusion detection and prevention service for the WLC-3350 standby controller

Power modules[1]

Device	AC power module	DC power module
WLC-3200	PM160-220/12	PM160-48/12
WLC-3250	PM160-220/12	PM160-48/12
WLC-3350	PM350-220/12	PM350-48/12

[1] On request.

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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.