INDOOR WIFI ACCESS POINT

AX 8800

WiFi 6

AX WiFi SERIES

CLOUD PRO

√ WiFi Quad-Band (2.4 GHz + 5 GHz) IEEE 802.11b/g/n/ac/ax

√ Combined maximum data rate up to 7780Mbps + 1000Mbps

√ 10 spatial streams

√ AI-powered smart radio for optimized STA roaming

√ MU-MIMO and WMM

√ Fast-Intelligent-Roaming (IEEE 802.11k/v/r)

√ Maximum transmission power 24dBm

√ High WiFi quality and efficiency (RF power adjustment and intelligent channel assignment)

√ Local and remote management via CloudPRO

√ 1/5Gbps via copper (RJ45) or 2.5Gbps via fiber (SFP)

√ PoE IEEE802.3af 48Vdc or local power supply
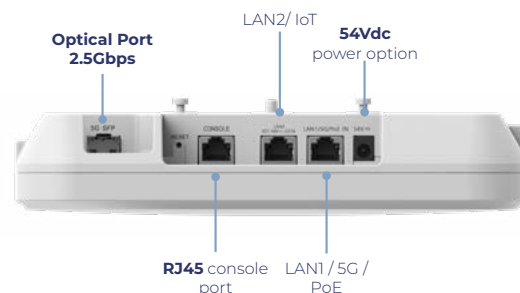
√ Bluetooth 5.1

√ WPA2/802.1X, WPA3P/WPA3 Enterprise

2,4GHz 2 x 5GHz AI RADIO (2,485GHz)

AX 8800

Optical Port 2.5Gbps

LAN2/ IoT

54Vdc power option

RJ45 console port

LAN1 / 5G / PoE

Programming and management interface

TECHNICAL INFORMATION

Hardware

REFERENCE	AX 8800
Código	331026
802.11n	10 spatial streams: - Radio 1 – 2.4 GHz: 2x2 MIMO, two spatial streams - Radio 2 – 5 GHz: 2x2 MIMO, two spatial streams - Radio 3 – 5 GHz: 4x4 MIMO, four spatial streams - Radio 4 – AI Radio, 2.4 GHz/5 GHz: 2x2 MIMO, two spatial streams Channels: - Radio 1 – 2.4 GHz: 20 MHz and 40 MHz - Radio 2 – 5 GHz: 20 MHz and 40 MHz - Radio 3 – 5 GHz: 20 MHz and 40 MHz - Radio 4 – AI Radio, 2.4 GHz/5 GHz: 20 MHz and 40 MHz Combined maximum data rate: 1.200 Gbps - Radio 1 – 2.4 GHz: 6.5 Mbps to 300 Mbps (MCS0 to MCS15) - Radio 2 – 5 GHz: 6.5 Mbps to 300 Mbps (MCS0 to MCS15) - Radio 3 – 5 GHz: 6.5 Mbps to 600 Mbps (MCS0 to MCS31) - Radio 4 – AI Radio, 2.4 GHz/5 GHz: AI Radio scan only Radio technologies: Orthogonal Frequency-Division Multiplexing (OFDM) Modulation types: BPSK, QPSK, 16-QAM, and 64-QAM Packet aggregation: - Aggregated MAC Protocol Data Unit (A-MPDU) - Aggregated MAC Service Data Unit (A-MSDU) Dynamic Frequency Selection (DFS) Cyclic Delay Diversity / Cyclic Shift Diversity (CDD/CSD) Maximum Ratio Combining (MRC) Space-Time Block Coding (STBC) Low-Density Parity-Check (LDPC) Transmit Beamforming (TxBF)
802.11ac	8 spatial streams - Radio 2 – 5 GHz: 2x2 MU-MIMO – two spatial streams - Radio 3 – 5 GHz: 4x4 MU-MIMO – four spatial streams - Radio 4 – AI Radio, 5 GHz: 2x2 MIMO – two spatial streams Channels - Radio 2 – 5 GHz: 20 MHz – 40 MHz – 80 MHz – 160 MHz - Radio 3 – 5 GHz: 20 MHz – 40 MHz – 80 MHz – 160 MHz - Radio 4 – AI Radio, 5 GHz: 20 MHz – 40 MHz – 80 MHz Combined maximum data rate – 5.200 Gbps - Radio 2 – 5 GHz: 6.5 Mbps – 1.733 Gbps (MCS0 – MCS9) - Radio 3 – 5 GHz: 6.5 Mbps – 3.467 Gbps (MCS0 – MCS9) - Radio 4 – AI Radio, 5 GHz: AI Radio – scan only Radio technologies – Orthogonal Frequency-Division Multiplexing (OFDM) Modulation types – BPSK – QPSK – 16-QAM – 64-QAM – 256-QAM Packet aggregation - Aggregated MAC Protocol Data Unit – A-MPDU - Aggregated MAC Service Data Unit – A-MSDU Dynamic Frequency Selection – DFS Cyclic Delay Diversity / Cyclic Shift Diversity – CDD/CSD Maximum Ratio Combining – MRC Space-Time Block Coding – STBC Low-Density Parity-Check – LDPC Transmit Beamforming – TxBF
802.11ax	8 spatial streams - Radio 1 – 2.4 GHz: 2x2 uplink/downlink MU-MIMO – two spatial streams - Radio 2 – 5 GHz: 2x2 uplink/downlink MU-MIMO – two spatial streams - Radio 3 – 5 GHz: 4x4 uplink/downlink MU-MIMO – four spatial streams Channels - Radio 1 – 2.4 GHz: 20 MHz – 40 MHz - Radio 2 – 5 GHz: 20 MHz – 40 MHz – 80 MHz – 160 MHz - Radio 3 – 5 GHz: 20 MHz – 40 MHz – 80 MHz – 160 MHz Combined maximum data rate – 7.780 Gbps - Radio 1 – 2.4 GHz: 7.3 Mbps – 0.574 Gbps (MCS0 – MCS11) - Radio 2 – 5 GHz: 7.3 Mbps – 2.402 Gbps (MCS0 – MCS11) - Radio 3 – 5 GHz: 7.3 Mbps – 4.804 Gbps (MCS0 – MCS11) Radio technologies – uplink/downlink Orthogonal Frequency-Division Multiple Access (OFDMA) Modulation types – BPSK – QPSK – 16-QAM – 64-QAM – 256-QAM – 1024-QAM Packet aggregation - Aggregated MAC Protocol Data Unit – A-MPDU - Aggregated MAC Service Data Unit – A-MSDU Dynamic Frequency Selection – DFS Cyclic Delay Diversity / Cyclic Shift Diversity – CDD/CSD Maximum Ratio Combining – MRC Space-Time Block Coding – STBC Low-Density Parity-Check – LDPC Transmit Beamforming – TxBF WPA3

TECHNICAL INFORMATION

Antennas	Wi-Fi - 2.4 GHz: two integrated omnidirectional smart antennas, maximum antenna gain of 5.5 dBi - 5 GHz: six integrated omnidirectional smart antennas, maximum antenna gain of 7 dBi Bluetooth - One integrated omnidirectional vertically polarized antenna, maximum antenna gain of 3 dBi
Ports	1 x 100/1000/2.5G/5GBASE-T port, compliant with IEEE 802.3af/at/bt standard (PoE/PoE+/PoE++) 1 x 2.5GE SFP port, compatible with 1GE and 2.5GE SFP modules 1 x 10/100/1000BASE-T port, supplying 48 V/12.95 W power to an IoT unit
LED statuS	1 x multicolor system status LED - AP power status - Software initialization and upgrade status - Uplink service interface status - Wireless user online status - CAPWAP tunnel timeout - Specific AP location
Button	1 x Reset button - Press for less than 2 seconds – the device will reboot - Press for more than 5 seconds – the device will restore factory settings
Dimensions (W x D x H)	Main product: 230 mm x 230 mm x 51 mm (9.06 in. x 9.06 in. x 2.01 in.) Packaging: 618 mm x 450 mm x 350 mm (24.33 in. x 17.72 in. x 13.78 in.)
Weight	Main product: 1.0 kg (2.20 lbs) Mounting bracket: 0.1 kg (0.22 lbs) Packaging: 1.25 kg (2.76 lbs)
Mounting	Wall/ceiling mounting (a mounting bracket is included with the main unit)
Lock option	Kensington lock and security latch
Input power supply	The access point supports the following two power supply modes: - 54 Vdc/1.1 A power input via the DC connector – The DC connector accepts a center-positive circular plug with an inner diameter of 2.1 mm (0.08 in.), outer diameter of 5.5 mm (0.22 in.), and length of 9.5 mm (0.37 in.). A DC power adapter must be purchased separately. - PoE input via LAN 1 – The power sourcing equipment (PSE) complies with the IEEE 802.3af/at/bt standard (PoE/PoE+/PoE++). Note: If both DC and PoE power are available, DC power is preferred.
Maximum power consumption	Maximum power consumption: 40 W - DC power: 40 W – Radio 1 (2.4 GHz) 2x2, Radio 2 (5 GHz) 2x2, Radio 3 (5 GHz) 4x4, Radio 4 (AI Radio) 2x2, LAN 2 PoE output (48 V/12.95 W), and USB port power supply (5 V/5 W) - 802.3bt (PoE++): 40 W – Radio 1 (2.4 GHz) 2x2, Radio 2 (5 GHz) 2x2, Radio 3 (5 GHz) 4x4, Radio 4 (AI Radio) 2x2, LAN 2 PoE output (48 V/12.95 W), and USB port power supply (5 V/5 W) - 802.3at (PoE+): 25 W – Radio 1 (2.4 GHz) 2x2, Radio 2 (5 GHz) 2x2, Radio 3 (5 GHz) 2x2, Radio 4 (AI Radio) 2x2, LAN 2 supports data transmission but does not provide PoE output. The USB port is disabled and does not supply power to external devices. - 802.3af (PoE): 12.2 W – Radio 1 (2.4 GHz) 1x1, Radio 2 (5 GHz) 1x1, Radio 3 (5 GHz) 1x1, Radio 4 (AI Radio) is disabled, LAN 2 supports data transmission but does not provide PoE output. The USB port is disabled and does not supply power to external devices. - Idle mode: 12.2 W
Environmental features	- Operating temperature: –10°C to +50°C (14°F to 122°F) - Storage temperature: –40°C to +70°C (–40°F to +158°F) Note: At altitudes between 3,000–5,000 m (9,842.52–16,404.20 ft), the maximum temperature decreases by 1°C (1.8°F) for every 166 m (544.62 ft) increase in altitude. - Operating humidity: 5% RH to 95% RH (non-condensing) - Storage humidity: 5% RH to 95% RH (non-condensing) - Operating altitude: –500 m to +5,000 m (–1,640.42 ft to +16,404.20 ft) - Storage altitude: –500 m to +5,000 m (–1,640.42 ft to +16,404.20 ft)
System memory	512 MB DRAM, 256 MB flash
Maximum transmission power	2.4 GHz: 24 dBm (398 mW) / 5 GHz: 26 dBm (251 mW) Note: - Transmit power adjustment by percentage (recommended) and in 1 dBm increments - Transmit power is limited by local regulatory requirements

TECHNICAL INFORMATION

Software

| WLAN	
Maximum number of associated STAs	1536 (up to 128 STAs per radio)
Maximum number of BSSIDs	48 (up to 16 BSSIDs per radio)
WLAN service	Maximum number of WLAN IDs: 16
STA manage-ment	Hidden SSID option Each SSID can be configured independently with authentication mode, encryption mechanism, and VLAN attributes Remote Intelligent Perception Technology (RIPT) Smart STA identification technology Intelligent load balancing based on the number of STAs or traffic
STA limitation	STA limitation based on SSID STA limitation based on radio
Bandwidth limitation	Speed limitation based on STA/SSID/AP
CAPWAP	CAPWAP IPv4/IPv6 CAPWAP through NAT Encryption in CAPWAP data channels Encryption in CAPWAP control channels
Data trans-mission	Centralized and local forwarding
Wireless roaming	Layer 2 and Layer 3 roaming
Wireless location	MU device location
Security and Authentication	
Authenti-cation and encryption	Remote Authentication Dial-In User Service (RADIUS) PSK, PPSK, UPSK, PEAP authentication and web authentication Guest authentication via QR code, SMS authentication, and MAC address authentication (MAB) (used with RG-WS series ACs) Data encryption: WEP (64/128 bits), WPA-TKIP, WPA-PSK, WPA2-AES, WPA3-Personal, WPA3-Enterprise
Data filtering	Whitelist, static blacklist, and dynamic blacklist
WIDS	Unauthorized device discovery Optimization of containment for unauthorized APs for all types of STAs Diffuse containment SSID-based blacklist DDoS attack identification Automatic detection of STA attacks and addition of STAs to the blacklist when ICMP or TCP SYN attacks are detected STA isolation

TECHNICAL INFORMATION

| ACL	Standard IP ACL, extended MAC ACL, extended IP ACL, and expert-level ACL IPv6 ACL Time-based ACL Layer 2 interface-based ACL Layer 3 interface-based ACL Inbound ACL based on a wireless interface Comment in ACL Dynamic ACL assignment based on 802.1X authentication (used with AC)
CPP	CPU Protection Policy (CPP)
NFPP	Network Foundation Protection Policy (NFPP)
Routing and Switching	
MAC	Static and filtered MAC addresses MAC address table size: 2048 Maximum number of static MAC addresses: 2048 Maximum number of filtered MAC addresses: 2048
Ethernet	Jumbo frame length: 1,518 Ethernet II frame format 2500M SFP ports 5GE interfaces
VLAN	Interface-based VLAN assignment Maximum number of SVIs (IPv4): 200 Maximum number of SVIs (IPv6): 200 Maximum number of VLANs: 4,094 VLAN ID range: 1–4,094
ARP	ARP entry aging, free ARP learning, and ARP proxy Maximum number of ARP entries: 2048 ARP verification
IPv4 services	Static and DHCP-assigned IPv4 addresses Maximum number of IPv4 addresses configured on each Layer 3 interface: 200 NAT, FTP ALG, and DNS ALG
IPv6 services	IPv6 addresses, Neighbor Discovery (ND), IPv6 ND Proxy, ICMPv6, IPv6 Ping, IPv6 DHCP client
IP Routing	IPv4/IPv6 static route Maximum number of static IPv4 routes: 1,024 Maximum number of static IPv6 routes: 1,000
Multicast	Multicast to unicast conversion
VPN	PPPoE client IPsec VPN
Network management and monitoring	
Network management	NTP server and NTP client SNTP client SNMPv1/v2c/v3 Failure detection and alarms Information statistics and logging
Network management platform	Web management Cloud system CloudPRO by EK
User access management	Console, Telnet, SSH, FTP client, FTP server, and TFTP client
Switching between Fat, Fit, and Cloud modes	When the AP operates in Fit mode, it can be switched to Fat mode through a controller (UC AX) When the AP operates in Fat mode, it can be switched to Fit mode through the console port or Telnet mode. When the AP operates in cloud mode, it can be managed through CloudPRO by EK.

TECHNICAL INFORMATION

Antenna Pattern Plots

Horizontal Plane (Top View)
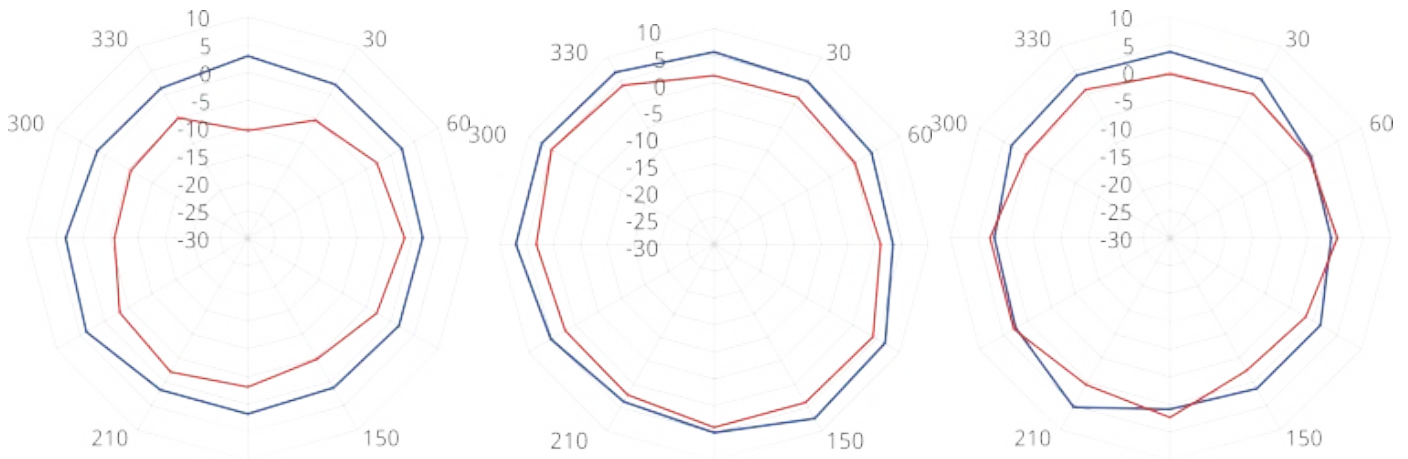
Vertical Plane (Side View, AP Facing Down)

CLOUD
PRO

https://cloudpro.ek.plus/

Ek EKSELANS BY ITS
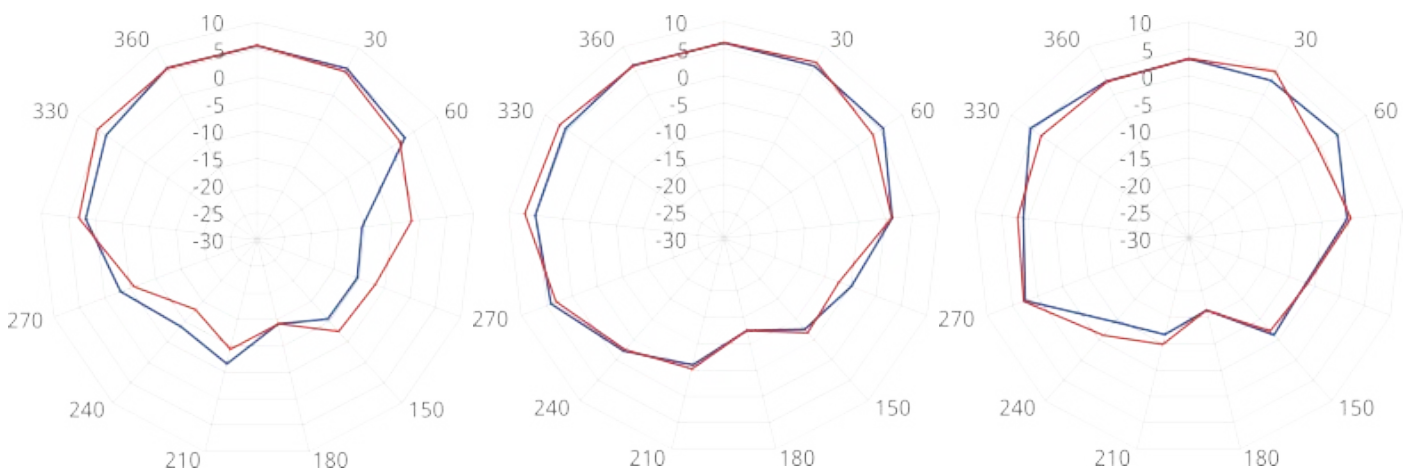
√ Unified Cloud-Based WiFi Network Management Platform

√ Enables the design, deployment, configuration, operation, and real-time analysis of WiFi networks

√ Management of all network devices: access points, switches, and controllers

√ Remote execution of monitoring and diagnostic tasks for device connection status, configuration deployment, firmware updates, equipment reboots, and more

√ Automatic network provisioning option with auto-identification of the network topology

√ Network optimization and smart roaming between devices

√ Includes a WiFi network design and planning tool (site survey and heat maps)

√ Allows the creation and monitoring of an unlimited number of projects/installations for each user

√ All of this with the highest standards of cybersecurity, based on cloud servers located in Europe