

# Aero Range - Wi-Fi 6 Ceiling AP

SIL WCAP-AX

All New Robust Performance,  
Wireless Ceiling Access Point



SIL WCAP-AX  
1800Mbps 802.11AX Dual  
Band Wireless Ceiling AP

### OVERVIEW

The SIL WCAP-AX is a compact ceiling access point that offers robust performance in an elegant shell.

As part of the new Intelligent Wi-Fi 6 "Aero" range by SilverNet, the cloud-managed WCAP-AX is designed to build high performance enterprise Wi-Fi networks, and make enterprise management simple.

Offering superior indoor Wi-Fi range, it can provide integrated Power Over Ethernet via 48V PoE or 12V DC. This means it is perfect for a number of uses, particularly commercial and hospitality applications. From providing hotspot functionality, to supporting various hotspot authentication methods such as vouchers, local accounts or, for example, Facebook, it provides strong support across shopping centres, schools, hotels and more.

With options to manage the AP locally or via the cloud, the flexibility of this equipment allows you to offer a full, end-to-end managed Wi-Fi service to meet your client's needs. It is also efficient when used as a standalone AP.

Keep things running smoothly for both you and your customer. You'll stay informed about your customer's Wi-Fi client signal health and internet quality, putting an end to common, unnecessary support calls. Time consuming tasks like RF troubleshooting and bulk software upgrades are a breeze, and installation is a simple, speedy job.

The 5Ghz priority feature improves wireless network performance, and with 1 year extended warranty you won't have to worry about your customer's WiFi needs.

### Features

- WIFI 6, 802.11ax chipset, 1800Mbps
  - Coverage Range: 200m
  - WAN & LAN – 10/100/1000-BASE-T
  - PoE 802.af
  - Power over DC: 12V 1.5A
  - Channel optimisation
  - Automatic interference avoidance
  - Up to 8 SSID (4 on 2.4GHz, 4 on 5.8GHz)
- Client Load Balancing
  - AES Encryption
  - VLANS
  - PING Watchdog
  - MAC Access control
  - Easy to install
  - Local or Cloud Management
  - 1 Year warranty

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# Superior Performance Features

## 5GHz Priority

Ensure you’re always getting peak wireless networking performance.

The WCAP-AX automatically calculates the load balance and signal strength of 2.4GHz and 5.8GHz, allocating users to 5.8GHZ first. This provides a high quality internet experience for your customers.

## Seamless Roaming

Roaming has never been smoother.

802.11k and 802.11v Seamless Roaming provides smooth, unnoticeable switching to whichever access point has the most optimal signal when moving between APs.

## Intelligent Spectrum Management

Success in the 2.4GHz and 5GHz spectrum requires an intelligent management system to remain interference free. The WCAP-AX has you covered.

It automatically selects the best channel on start-up, and uses an ongoing auto channel algorithm to alert and change channels if performance suffers due to interference.

## Increased Efficiency with OFDMA

Reduced latency and efficient channel usage are the benefits of using OFDMA

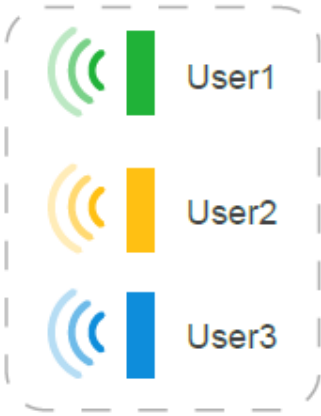
Picture your Wi-Fi connection as a series of delivery vans, delivering data packets to your users. With 802.11ax, a “van” can deliver multiple packets to multiple users simultaneously, by splitting the bandwidth into individual “delivery” slots.

This results in a vast improvement in efficiency, working for both uploads and downloads.

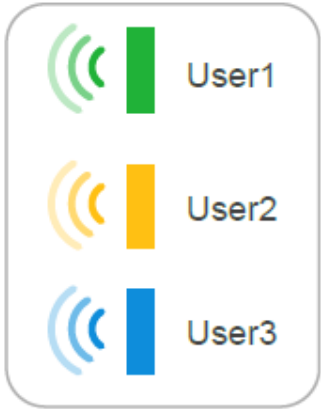


802.11ax:	1024-QAM, Long OFDM Symbol, Max 160MHz bandwidth
802.11ac:	256-QAM

### OFDM



### OFDMA



# Technical Specifications

Part No.	SIL WCAP-AX
Performance	
Max Throughput	1800Mbps
Client Capacity	100
Wireless Protocols	802.11ax/ac/a/n/g/b
Flash	SPI NOR 16MB
Memory	128MB
Modes	WISP Wireless Range Extender (Repeater) Wired WiFi Extension (AP Mode)
Power Consumption	15W
Radio	
MIMO & Modulation	2x2:2 MIMO OFDMA Up to 256-QAM
Bandwidth	20/40/80/160 MHz Channels
Frequency Range	2400 – 2484MHz; 5150 – 5850MHz
Max Output Power	20dBm
Antenna	
Type	Internal
Pattern	4dBi Omni
Interface	
LAN	1x 10/100/1000 RJ45 LAN Port
WAN	1x 10/100/1000 RJ45 WAN Port (PoE)
Reset Button	1x Reset Button (Press & Hold for 10 seconds to revert to factory default)
DC	12v
Physical	
Dimensions (mm)	168W x 32H x 168L
Enclosure	UV Stabilized Plastic
Environment	
Operating Temperature	-30°C to +55°C
Operating Humidity	5% to 95% Non-Condensing
Storage Temperature	-40°C to +70°C
Standards	
Approvals	IEC62368-1:2014+A11:2017 EN IEC 62311:2020 ETSI EN 301 489-1 ETSI EN 301 489-3 ETSI EN 301 489-17 ETSI EN 300 328 ETSI EN 300 440 ETSI EN 300 893
Safety	IEC/EN
RoHS Compliance	Yes
Wi-Fi Certified	Yes

# Part Numbers & Accessories

## 802.11ax Access Points

Part Code	Description
SIL WCAP-EXT	Wi-Fi Standard 802.11ax/ac/n/a/g/b. Frequency 2.4GHz & 5GHz, Speeds up to 1800Mbps, Max TX Power 23Bm, 3dBi @ 2.4GHz; 6dBi @ 5.8GHz Integrated Omni Antenna, Up to 8 SSID Per Radio, Wireless Security WEP,WPA-PSK,WPA Enterprise, (WPA/WPA2,TKIP/AES) Concurrent clients 160+.
SIL WCAP-AX-EXT+	Wi-Fi Standard 802.11ax/ac/n/a/g/b. Frequency 2.4GHz & 5GHz, Speeds up to 1800Mbps, Max TX Power 24dBm, Quad N-Type Connector for Dual Band, Up to 8 SSID Per Radio, Wireless Security WEP,WPA-PSK,WPA Enterprise, (WPA/WPA2,TKIP/AES) Concurrent clients 160+.
SIL WCAP-AX-W	Wi-Fi standard 802.11ax/ac/n/a/g/b, Operating on 2.4GHz and 5GHz, at a speeds up to 1800Mbps, 2dBi 2.4GHz / 5dBi 5GHz Dual Band Omni with up to 8 SSID Per radio, range up to 50m with 120+ concurrent clients.

## AP Controller

Part Code	Description
SIL WAC-AX	Dual-Core 1.8GHz CPU, 2GB DDR RAM, 32G SSD, Ethernet 5*10/100/1000Mbps LAN / WAN port, 1 x 10/100/1000Mbps WAN Port, 2x USB 1.1 Port, 1 x RJ45 Console Port, Power & SSID Indicator, Desk-top and Mount Rack.