HIRSCHMANN IT

A BELDEN BRAND

Enterprise Indoor Wi-Fi 6 (802.11ax) Access Point

Dragonfly Indoor Wi-Fi 6 (802.11ax) Access Point

Hirschmann IT Dragonfly indoor series is next gen enterprise level Wi-Fi6(802.11ax) access point. The indoor series include DAP620 and DAP640.

- Faster data rate, lower latency with Wi-Fi 6 the over all throughput improved by 37%, latency reduced by 75%
- IEEE802.11ax technology enhance throughput-per-area in high-density scenarios
- Improves power efficiency for Wi-Fi 6 devices, extending the battery life of smart phones, IoT sensors, and other

Key Features

- 802.11ax WiFi6 supports maximum of 2.402Gbps in 5GHz and 573Mbps in 2.4Ghz
- Support various Wi-Fi6 features, OFDMA, BSS coloring, 1024-QAM and etc
- Featuring enhanced WLAN technology with RF Radio Dynamic Adjustment
- Cluster Management feature ensure quick deployment

Hirschmann IT Dragonfly Indoor Wi-Fi6 Access Point

Both access points support 2.4GHz & 5GHz dual GE uplink, OFDMA, MU-MIMO and all sort of Wi-Fi 6 features that can deliver more capacity for Bandwidth with less latency, which is ideal choice for your high-quality wireless requirement.

DAP620 supports a maximum concurrent data rate of 1.77Gbps (1.2Gbps in 5GHz and 573.5Mbps in 2.4GHz), four spatial streams (2SS in 2.4GHz and 2SS in 5GHz), 80MHz channels (HE80), and all mandatory Wi-Fi 6 (802.11ax) features, MU-MIMO, UL/DL OFDMA, BSS color, etc.

DAP640 supports a maximum concurrent data rate of 2.975Gbps (2.402Gbps in 5GHz and 573Mbps in 2.4GHz), six spatial streams (2SS in 2.4GHz and 4SS in 5GHz), 160(80+80)MHz channels, and all Wi-Fi 6 (802.11ax) features. It integrated BLE5/Zigbee(802.15.4) which makes it ideal for broad scope of IoT applications.

Featuring enhanced WLAN technology with RF Radio Dynamic Adjustment, a distributed control Wi-Fi architecture with unified access secure network admission control, built in application intelligence and analytics, making it ideal for enterprises wireless solution.

Wi-Fi 6(802.11ax) Features

Wi-Fi 6(802.11ax) allows enterprises to deliver high performance wireless LAN services with increased throughput, enabling more clients in dense environments. Furthermore, it provides high power efficiency for Internet of Things (IoT) devices, while it remains fully backward compatible with existing 802.11 a/b/g/n/ac deployments. Some of the key features enabled on DAP620 & DAP640 series are:

Orthogonal frequency division multiple access (OFDMA) enables more clients to simultaneously operate in the same channel, therefore improved efficiency, latency, and throughput. OFDMA can simultaneously address multiple clients in both directions downlink (DL) and uplink (UL). OFDMA is extremely effective for lower latency applications with mass clients such as voice and video transmission.

Multi-user multiple input, multiple output (MU-MIMO) allows more data to be transferred at once and enables a single access point to handle a larger number of concurrent clients.

1024 quadrature amplitude modulation mode (1024-QAM)
boosts peak data-rates by as much as 25 %.

BSS Coloring improves spatial reuse in dense environments by providing a mechanism for color coding different overlapping BSS's, allowing more simultaneous transmissions.

Extended Range (ER) provides increased coverage in scenarios where receiving side encounters high path loss and channel delay spread, especially in outdoor environments.

Target wake time (TWT) improves power efficiency for Wi-Fi 6 devices. This capability lets client devices to sleep much longer, and wake up to less contention, extending the battery life of smart phones, IoT sensors, and other devices.

Plug-and-play deployment

The DAP620/640 works in a fully redundant cluster architecture to provide simplified plug-and-play deployments. One access point (AP) cluster is an autonomous system that consists of a group of APs and a virtual controller, which is performed by a selected access point for cluster management. One AP cluster supports up to 255APs.

The access point cluster architecture ensures simplified and quick deployment. Once the first AP is configured using the configuration wizard, the remaining APs in the network will get online automatically with designated configuration. This ensures that the whole network is up and operational within a few minutes.

Network Management Platform deployment

The DAP620/DAP640 can be managed by DAC (Dragonfly Access Point Virtual Controller). APs are managed as one or more AP Groups (a logical grouping of one or more access points). The DAC is a visualized, user friendly and hardware free management platform. It supports WLAN management together with integrated authentication server which helps define authentication strategy and policy enforcement for Employees and Guest devices. The network administrator can obtain a comprehensive overview of all running applications on the network and apply adequate control to optimize the network performance for mission critical applications. DAC Management platform provides advanced options for RF Management, as well as WIDS/WIPS for intrusion detection and prevention.

Markets

Specifically designed for indoor mass user environments. Hirschmann IT Dragonfly indoor series is ideal for campus network, hospitality applications as well as commercial buildings.

Technical Information

Product description		
Type	**DAP620**	**DAP640**
Description	Indoor, dual radio, 5 GHz 802.11ax 2x2:2 and 2.4 GHz 802.11ax 2x2:2, built-in antennas	Indoor, dual radio, 5 GHz 802.11ax 4x4:4 and 2.4 GHz 802.11ax 2x2:2, built-in antennas; integrated BLE/Zigbee, scanning and security function
Port type and quantity	• 2 × 10/100/1000 TX RJ45, PoE PD (IEEE 802.3at), • 1 × RJ45 Console Port • 1 × USB 2.0 Type-C • 1 × Reset button • 1 × Kensington security slot	• 1× 10/100/1000/2500Mbps RJ45 port, Eth0, PoE PD (IEEE 802.3at) • 1× 10/100/1000Mbps RJ45 port, port, Eth1, PoE PD (IEEE 802.3at) • 1 × RJ45 Console Port, • 1 × USB 2.0 Type-C, • 1 × Reset button, • 1 × Kensington security slot
Radio protocol	IEEE 802.11b; 802.11a/g/n/ac; 802.11ax; up to 1.77Gbps (1.2Gbps in 5GHz and 573.5Mbps in 2.4GHz) data rate	IEEE 802.11b; 802.11a/g/n/ac; 802.11ax; up to 2.975Gbps (2.402Gbps in 5GHz and 573Mbps in 2.4GHz) data rate
Order No.	942 999-300	942 999-304
Radio technology		
Antenna connector	Built-in 2×2:2 @ 2.4GHz, 2x2:2 @ 5GHz, integrated dual-band downtilt omni-directional antennas for 2x2 MIMO with peak antenna gain of 3.3dBi in 2.4GHz and 3.3dBi in 5GHz.	Built-in 2×2:2 @ 2.4GHz, 4x4:4 @ 5GHz, BLE antenna, Four integrated dual-band downtilt omni-directional antennas for 4x4 MIMO with peak antenna gain of 4.7dBi in 2.4GHz and 4.8dBi in 5GHz.
Frequency band	• 2.400 to 2.4835 GHz • 5.150 to 5.250 GHz • 5.250 to 5.350 GHz • 5.470 to 5.725 GHz • 5.725 to 5.850 GHz *available channels: Dependent on configured regulatory domain	
Modulation	• 802.11b: BPSK, QPSK, CCK • 802.11a/g/n/ac: BPSK, QPSK, 16-QAM, 64-QAM, 256-QAM • 802.11ax: BPSK, QPSK, CCK,1 6-QAM, 64-QAM, 256-QAM, 1024-QAM	
Additional radio feature		BLE5/Zigbee (802.15.4), scanning and security function
Mechanical construction		
Dimensions (W×D×H)	180mm x 180mm x 36mm	
Weight	0.6kg	0.8 kg
Mounting	Wall/Ceiling mounting	
Power requirement		
Operating voltage	• Supports direct DC power and Power over Ethernet (PoE PD) • Direct DC source: 48V DC nominal, +/- 5%	
Power consumption	13.1W	24.8W
Ambient conditions		
Operating temperature	0°C...45°C	0°C...50°C
Storage/transport temperature	-40°C...70°C	
Relative humidity (non-condensing)	5%...95%	
Protection class	IP41	

Technical Information

Software	
Software features	Auto channel selection; Auto transmit power control; Bandwidth control per SSID; L2 roaming; L3 roaming with DAC software; Band steering; Client smart load balance; NTP server client; Wireless MESH P2P/P2MP
Management	Internal User Database; Zero-touch provisioning (ZTP); System log report; SNMP Trap Notification with DAC software; Floor plan and heat map with DAC software
Security	Captive Portal; Radius Client; Wireless QoS; Client sticky avoidance; User behavior tracking; White / black list; ACL; Rogue AP location and containment; Wireless Attack Detection
Authentication & Encryption	• 802.11i, Wi-Fi Protected Access 2 (WPA2), WPA, WPA3 (WPA3-Personal, WPA3-Enterprise) • 802.1X • Portal page authentication • Advanced Encryption Standard (AES), Temporal Key Integrity Protocol (TKIP)
Management software	DAC Software, Industrial HiVision
Compliance	
IEEE standard	• IEEE 802.11a/b/g/n/ac/ax • IEEE 802.11e WMM • IEEE 802.11h, 802.11i, 802.11e QoS • IEEE 802.11k Radio Resource Management • IEEE 802.11v BSS Transition Management • IEEE 802.11r Fast roamin
Basic standard	CE, FCC, UL
Safety	EN62368-1
Radio	EN 300 328 (2.4 GHz), EN 301 893 (5 GHz), EN 301 489-1, EN 301 489-17
Medical electrical equipment	EN 60601-1-1, EN 60601-1-2
RoHS	RoHS (EU 2015/863) and RoHS(GB/T26572-2011) compliant
Wi-Fi Alliance	Wi-Fi 6 certified, Passpoint
Scope of delivery and accessories	
Scope of delivery	Installation guide, mounting kit (AP-MNT-IN-W)
Accessories to order separately	DC power adapter

About Belden

Belden Inc., a global leader in high quality, end-to-end signal transmission solutions, delivers a comprehensive product portfolio designed to meet the mission-critical network infrastructure needs of industrial, enterprise and broadcast markets. With innovative solutions targeted at reliable and secure transmission of rapidly growing amounts of data, audio and video needed for today's applications, Belden is at the center of the global transformation to a connected world. Founded in 1902, the company is headquartered in St. Louis, USA, and has manufacturing capabilities in North and South America, Europe and Asia.