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Intelbras AP 3620 Wi-Fi 6 (802.11ax) Enterprise Router

802.11ax Wireless Access Device



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Overview

Intelbras AP 3620 wireless product is a Wi-Fi 6 (802.11ax) AP product independently developed by Intelbras.

The maximum access rate of the whole machine is 2.975Gbps. 5GHz frequency band 2 spatial streams, the maximum negotiated rate is 2.4Gbps, 2.4GHz frequency band 2 spatial stream, the maximum negotiated rate is 0.575Gbps. It can be widely used in enterprise, school and medical scenarios.

The Intelbras AP 3620 wireless product has a small and beautiful appearance and flexible installation methods. It supports wall-mounted, ceiling-mounted, and 86-box installations.



AP 3620 Wi-Fi 6 (802.11ax) wireless access device

Product features

Operating mode

The built-in all-in-one version of the AP can flexibly switch the working mode version according to the needs, thereby saving implementation costs and realizing out-of-the-box use.

Fit AP

This product supports the Fit AP mode and can be managed by wireless controllers. In this networking mode, batch AP localization management can be realized.

Cloud AP

This product supports the cloud-simplified solution, which can be used for wireless networking without hardware AC and authentication server, and realizes rich authentication functions such as PPSK, PSK.

At the same time, customized development is carried out for multi-branch scenarios such as chain hotels, supermarkets, etc., to realize the simplified deployment of branches, hierarchical and decentralized management, smart large screens at the headquarters, and custom configuration models.

Wired and Wireless security protection

RF resource management

Radio Resource Management (RRM) uses systematic intelligent radio management to monitor air interface channel utilization, channel interference, and signal conflicts in real time, and adjust radio parameters such as working channel, bandwidth, and power in a timely manner to maintain Optimal RF resource status. It can realize automatic network deployment and network automatic dynamic repair. This function requires the wireless controller or cloud software

Support Roaming optimization

The wireless AP fully supports the Fast BSS Transition function defined in the 802.11r standard, which can speed up the roaming process of wireless users, reduce the probability of connection interruption, and improve roaming service quality.

Through the 802.11k protocol mechanism, the AP and the wireless client perform interactive detection, and multi-dimensional mutual awareness of the network topology; AC full-view recognition and comprehensive calculation of the wireless client roaming time.

The host and the roaming access location, through the 802.11v and 802.11r mechanisms, negotiate and switch with the client; at the same time, during the switch, the AC maintains the flow of the downlink traffic. Barriers, so as to achieve seamless switching and improve user experience.

Support OFDMA technology

Support OFDMA (Orthogonal Frequency Division Multiple Access, Orthogonal Frequency Division Multiple Access) technology, the AP can subdivide the wireless bandwidth, use different subcarriers to transmit data to multiple terminals at the same time, and reduce multi-user air interface resource conflicts in traditional protocols and the delay caused by backoff, improving the low-latency of voice and video in multi-user scenarios. The user experience of the application.

Support spatial multiplexing technology

Support SR (Spatial Reuse, spatial reuse) technology & BSS Coloring coloring mechanism, control the terminal to adjust the transmission power through the link layer identification message color, improve the channel multiplexing ability in high-density deployment, and alleviate the same channel interference in the process of multi-user use problem, greatly improving the utilization of spectrum resources.

Support TWT technology

Support TWT (Target Wake Times, target wake-up time) technology, allowing the AP to uniformly schedule the wake-up and sleep of the terminal, which can not only reduce the conflict between the terminals, but also reduce the unnecessary wake-up times of the terminal, so as to achieve the purpose of energy saving.

Flexible forwarding strategy

When connecting through a WAN, the wireless access device is deployed in the branch office, and the wireless controller is deployed in the headquarters. The traditional forwarding mode is that data packets are sent by the wireless access device to. It is sent to the wireless controller, and then the wireless controller performs centralized forwarding. The product can directly convert data packets into wired format packets on the wireless access device, making the data packets.

Files are forwarded locally without passing through the wireless controller, which greatly saves wired bandwidth. At the same time, it also supports flexible policy forwarding, the same as the terminal in the wireless service, according to the forwarding policy.

This strategy implements traffic concentration and local forwarding selection, thereby releasing the egress bandwidth pressure and reducing network bandwidth costs.

Support IPv4/IPv6 dual protocol stack (Native IPv6)

Fully supports IPv6 features, and the device implements IPv4/IPv6 dual protocol stack. Regardless of whether the original wired network is IPv4 or IPv6, it can be broadcast, multicast, DHCP option43, DNS and other methods automatically register on the wireless controller and provide WLAN services, and will not become an information island in the network.

Specifications

Hardware specifications

Name	AP 3620
weight	250g
Dimensions (not including antenna interface and accessories)	130mm×130mm×36mm
Ethernet interface	1x 10/100/1000M electrical port
PoE	802.3af powered
Power supply	Support 54V DC
Console port	1x

Name	AP 3620
built-in antenna	Built-in smart antenna system with dual-radio, which: <ol style="list-style-type: none"> 2x2 2.4GHz with 3dBi gain 2x2 5GHz with 5 dBi gain
Working frequency	802.11ax/ac/n/a: 5.725GHz-5.850GHz; 5.47GHz-5.725GHz; 5.15GHz-5.35GHz 802.11ax/b/g/n: 2.4GHz-2.483GHz
Compatible bandwidth	2.4GHz: 20/40MHz 5GHz: 20/40/80/160MHz
Nominal Throughput	2.4GHz: 574Mbps 5GHz: 2402Mbps Combined: 2976Mbps
Modulation techniques	11b - DSS: CCK@5.5/11Mbps, DQPSK@2Mbps, DBPSK@1Mbps 11a/g - OFDM: 64QAM@48/54Mbps, 16QAM@24Mbps, QPSK@12/18Mbps, BPSK@6/9Mbps 11n - MIMO-OFDM (MCS 0 -31): BPSK, QPSK, 16QAM, 64QAM 11ac/ac wave2 - MIMO-OFDM (0 – 9): BPSK, QPSK, 16QAM, 64QAM, 256QAM 11ax - MIMO-OFDM (0 – 11): BPSK, QPSK, 16QAM, 64QAM, 256QAM, 1024QAM
Transmitting power (combined circuit)	23dBm (both frequencies)
Adjustable power granularity	1dBm
Reset/restore factory configuration	support
Status Indicator	Yellow, green and blue different working status flashing mode
Working temperature/storage temperature	-10°C ~ 55°C/-40°C ~ 70°C
Working Humidity/Storage Humidity	5%~95% (non-condensing)
power consumption	11.88W
MTBF	>850000H

Software specifications

	Name	AP 3620
Operating mode	Fit	Managed by AC Control
	Cloud (Fat)	It can be managed by the cloud-simplified network, or it can work independently
	Mode switching	via command lines, ACs, Cloud, or reset button
	Router (IPv4/IPv6)	via command lines or web interface
Management and maintenance	Cloud Centralized management	Support by INC Cloud
	Local centralized management	Support by INC
	WC centralized management	Fit mode: support Cloud mode: support version upgrade, switch mode
	Local web	Cloud mode support
	Telnet	Cloud mode support
	SSH	Cloud mode support
	SNMP	Cloud mode support
	Debug serial port	support
	Intelligent operation and maintenance	Fit/ Cloud mode support
11ax support	TWT	support
	BSS Color	support
	MU-MIMO	support
	OFDMA	support
	Only 11ax	support
WLAN basics	Maximum client's connections	1024 (512 per frequency rate)
	Virtual AP (in practice, it is recommended to set up to 5 per radio frequency)	16 (the maximum number of services for the whole machine is 32)
	A-MPDU	support

	Name	AP 3620
	A-MSDU	support
	Maximum Similarity Demodulation (MLD)	support
	Maximum Combined Ratio Receive (MRC)	support
	Space Time Block Code (STBC)	support
	Low Density Parity Check Coding (LDPC)	support
WLAN extension	STA related	Support STA abnormal offline detection, STA aging, STA-based statistics and status query, etc.
	Access user limit	support
	Link Integrity Detection	support
	Broadcast Probe request response control	Support
	Disable weak signal client access	support
	Hide SSID	support
	WLAN RRM	support
	Wireless bridging	support
	Repeater mode	support
	Client mode	Cloud mode support
	Doctor AP	Fit mode support
	Remote APs	Fit mode support
	11k	support
	11v	Fit mode support
11r	Fit mode support	
security strategy	Encryption	Support 64/104 bit WEP, TKIP, CCMP, WPA3 encryption
		Support multiple key update trigger conditions to dynamically update unicast/broadcast keys
	802.11i	support

	Name	AP 3620
	certified	Support 802.1x authentication, MAC address authentication, PSK authentication; open system/shared key authentication; Enhanced Open system authentication Mixed access of WPA, WPA2, WPA3.
	User isolation	Support Layer 2 isolation of wireless users Support wireless user isolation based on SSID
	Forward security	Support packet filtering, MAC address filtering, broadcast storm suppression, etc.
	Wireless endpoint access	Support wireless EAD
	SSID and VLAN binding	support
	Intelligent Wireless Service Awareness (wIAA)	support
	wIDS/wIPS	support
	Management frame protection (802.11w)	support
	802.1X Client	support
Operation mode	Router (IPv4 and IPv6) and Bridge	
Layer 2 and Layer 3 functions	IP address setting	Support: Static IP address (FAT) or DHCP to obtain IP address (optional option 60)
	Native IPv6	support
	IPv6 Portal	support
	IPv6 SAVI	support
	PPPoE Client	support
	NAT	support
	ACLs	Support (IPv4/IPv6)
	local forwarding	Fit mode support: local forwarding based on SSID+VLAN
	multicast	IGMP Snooping/MLD Snooping

	Name	AP 3620
service quality	802.11e	Support WMM
	priority	Support Ethernet port 802.1p identification and marking Supports mapping from wireless priority to wired priority
	QoS policy map	Support different SSID/VLAN mapping different QoS policies
	Support L2~L4 packet filtering and traffic classification functions	support
	CAR	support
	User Bandwidth Management	Allocate available bandwidth per STA Allocate total bandwidth shared by all STAs according to SSID Dynamically adjust STA available bandwidth according to business
	Load balancing	Support traffic-based load balancing. Support user-based load balancing Dual 5GHz devices support band-based load balancing
	Spectrum Navigation	support
	Multicast Enhancement	Support: multicast to unicast (IPv4/IPv6)
	CAC (Call Admission Control)	support: based on the number of users and based on channel utilization
	application identification	Fit mode supports audio and video optimization (eMDI/SQA/UCC)
Time Fair Scheduling (ATF)	support	
green technology	Green AP mode	support
	Dynamic MIMO Power Saving	support
	Enhanced Auto Power Save Delivery (E-APSD)	support
	WMM Power Save	support