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Intelbras AP 7739 Wi Fi Router

Intelbras AP 7739 New Generation 802.11be Indoor Series Access Point

Overview

Intelbras AP 7739 is a new generation Wi-Fi 7 product that complies with the 802.11be standard. Compared to Wi-Fi 6/6E products, it can provide higher rates, larger capacity, and lower latency. The access point has tri-radio 12 streams and with built-in antenna, including 4×4 6-GHz, 4×4 5-GHz, and 4×4 2.4-GHz, achieving speeds up to 18.67 Gbps. The access point has a 10 Gbps optical port and a 10 Gbps electrical port, providing redundant uplink ports. Redundant power supplies provide fault-free performance during failover. This access point supports both wall-mounted and ceiling-mounted installation, and is designed for high-end enterprise offices, high-density wireless access, multi-party video conferencing, online teaching, exhibition centers, and other scenarios that require high-bandwidth and high-quality network experience.

Features and benefits

New-generation Wi-Fi standard 802.11be (Wi-Fi 7)

- Wi-Fi 7(802.11be) is the next generation Wi-Fi standard, with improvements in the following features compared to Wi-Fi 6/6E: Supporting 320MHz bandwidth is an important physical layer technology in Wi-Fi 7. Compared to the 160MHz bandwidth of Wi-Fi 6/6E, the peak theoretical rate is directly doubled. Wi-Fi 7 has more bandwidth combinations, which can bring higher speed, wider coverage, and better multi user processing capabilities.
- 4096-QAM is also an important new technology in Wi-Fi 7. Compared to the 1024-QAM technology in WiFi 6/6E, 4096-QAM technology can increase transmission speed by 20%, resulting in higher bandwidth utilization, more stable transmission rate, and better user experience. MLO, Multi-Link Operation. By establishing multiple links, it can effectively improve the network performance, providing higher throughput, lower latency, and better connection quality. MRU, Multiple Resource Unit. In Wi-Fi 6, a single STA can only use a single RU resource, which lacks flexibility. Wi-Fi 7 breaks this limitation by allowing a single STA to occupy multiple RUs simultaneously, and RUs of the same sizes can be combined together. Preamble Puncturing. Utilizing discontinuous spectrum for data transmission to improve spectrum utilization efficiency. There are only a few available modes in Wi-Fi 6. On the one hand, Wi Fi 7 expands its bandwidth to 240MHz/320MHz; On the other hand, the spectrum drilling mechanism is more flexible for data transmission.

Specifications

Hardware specifications

Name	AP 7739
Installation	Wall and ceiling mounting
Net weight (excluding mounting accessories)	1.4 kg
Gross weight	1.8 kg
Dimensions (H×W×D excluding mounting and accessories)	225 mm x 225 mm x 47.2 mm
Box dimensions	270 mm x 270 mm x 80 mm
Ethernet ports	• 1 x 100/1000M/2.5G/5G/10G Multigigabit Ethernet, RJ-45, PoE input 1 x /1000M/10G optical port, SFP+, PoE input • 1 x 100/1000M Multigigabit Ethernet, RJ-45, PoE output
PoE	• **Input:** 1 x 100/1000M/2.5G/5G/10G Multigigabit Ethernet, 802.3bt/at 1 x 1000M/10G optical port, 802.3bt/at • **Output:** 1 x 100/1000M Multigigabit Ethernet, 802.3af
Power Source(Not included with the product)	• Support 54V DC 0.8A adapter • PoE 802.3bt powered (Minimum Type 3 Class 5 is required)
Console port	1x RJ-45
Kensington Lock	support

Built-in smart antenna	**8 omnidirectional tri-band antennas, which:** • .4×4 dual-band (2.4GHz and 6GHz) with 4.9dBi and 5.6dBi gain respectively • .4×4 5GHz with 4.6dBi gain
Working frequencies	• **802.11be/ax/ac/n/a:** 5.170MHz-5.330MHz; 5.490MHz-5.730MHz; 5.735MHz-5.835MHz; 5.925MHz – 7.115MHz; • **802.11be/ax/b/g/n:** 2.4GHz-2.483GHz

Name	AP 7739
Compatible bandwidth	• **2.4GHz** :20/40Mhz 20/40MHz • **5GHz:** 20/40/80/160MHz • **6GHz:** 20/40/80/160/320MHz
Nominal throughput	• 2.4GHz: 1.38Gbps • 5GHz: 5.76Gbps 6GHz: 11.53Gbps • Combined: 18.67Gbps

Modulation techniques	• **11b** – **DSSS:** 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 (0-31): BPSK, QPSK, 16QAM, 64QAM • **11ac/ac wave2** – MIMO-OFDM (0 – 9): BPSK, QPSK, 16QAM, 64QAM, 256QAM • **11ax** – MIMO-OFDM (0-9): BPSK, QPSK, 16QAM, 64QAM, 256QAM 11ax: MIMO-OFDM: BPSK, QPSK, • **16QAM,** 64QAM, 256QAM, 1024QAM • **11be** – MIMO-OFDM (0-13): BPSK, QPSK, 16QAM, 64QAM, 256QAM, 1024QAM, 4096QAM
Maximum transmit power	26 dBm
Reset/restoration to factory default	Supported
State LED	Alternating flashing mode, orange/green/blue for different working states, breathing mode
Working Temperature/ Storage Temperature	0ºC 50ºC(32°F to 122°F)/-40ºC 70ºC(–40°F to +158°F)
Working Humidity/ Storage Humidity	5%~95%(non-condensing)
Protection class	IP42
Overall power consumption	≤49.2W (with PoE output)≤31.7W (without PoE output)
MTBF	>250000H

Software specifications

Item		**AP 7739**
Operating mode	Fit mode	Controlled by WC

Item		**AP 7739**
	Cloud mode (Fat mode)	Controlled via Cloud or operates independently
	Mode switching	Mode switching via command lines, WCs, Cloud, or reset button
	Router (IPv4/IPv6)	via command line or web interface
System Management	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, reboot
	Control & provisioning tunnels	• CAPWAP to WLAN controller supported • Intelbras WC series access controllers was required.
	Local web	Cloud mode support
	Telnet	Cloud mode support

and maintenance	SSH	Cloud mode support
	SNMP	Cloud mode support
	Time Synchronization NTP/SNTP	Server and Client Supported
	Debug serial port	support
	Event logging	Syslog (RFC3164/5424) Supported
	Firmware & configuration storage Non-volatile memory (persistent across power cycles)	Supported
	Packet Capture	Supported
	Intelligent operation and maintenance	Fit/ Cloud mode support
802.11be	MLO	Multi-Link Operation (MLO) capability will be available soon and delivered through a software update.
	Preamble puncturing	Supported
	Multi-RU	Supported
802.11ax	A-MPDU	Supported

Item		**AP 7739**
	A-MSDU	Supported
	MU-MIMO	Support DL MU-MIMO/ UL MU-MIMO

	OFDMA	Support DL OFDMA/ UL OFDMA
	BSS Coloring	Supported
	Maximum likelihood de coding (MLD)	Supported
	Maximum-ratio combin ing (MRC)	Supported
	Space-time block codi ng (STBC)	Supported
	Low-density parity-che ck (LDPC)	Supported
	Cyclic Delay Diversity (CDD)/Cyclic Shift Dive rsity (CSD)	Supported
	DFS (dynamic frequen cy selection)	Supported
	Transmit Beamforming	SU and MU Supported
	Maximum client’s conn ections	1536 (512 per radio)
	Maximum number of S SIDs for each radio	16
	Virtual APs	48As a best practice, configure a maximum o f 5 virtual APs for each radio
	Open system/sh ared key authenti cation	Supported

WLAN basics	Broadcast probe request acknowledge control	Supported
	Concurrent login of WPA, WPA2, WPA3 and Pre-RSNA users	Supported
	RTS/CTS	Supported
	CTS-to-self	Supported
	802.11k and 802.11v smart roaming	Supported
	802.11r fast transition roaming	Supported
	Hide SSID	Supported

Item		**AP 7739**
	Advanced Traffic Management	Supported
	Restrict low rate/sticky terminals access	Supported
	Channel reuse	Supported
	Receiver sensitivity adjustment	Supported
	Automatic channel/power/bandwidth adjustment	Supported

WLAN extension	Station related	Abnormal offline check, station aging, statistics and status query
	Client number limit	Supported
	Link integrity check	Supported
	Repeater mode	Supported
Security policy	Encryption	WEP-64/128/152bit, dynamic WEP, TKIP, CCMP, AES,EAP,WPA3
		Multiple triggering conditions for unicast and broadcast key update
	802.11i	Supported
	Authentication	802.1X authentication, MAC authentication, PSK authentication, PPSK*Intelbras WC series access controllers might be required for authentication.
	User isolation	Layer 2 user isolation SSID-based user isolation
	Forwarding security	Packet filteringMAC address filtering Broadcast storm suppression
	Wireless terminal access	Wireless EAD
	SSID and VLAN binding	Supported
	WIDS/WIPS	Supported

	Rogue device detection and countermeasure	Supported
	Dynamic ARP Inspection (DAI)	Supported
	IP Source Guard (IPSG)	Supported
	Management frame protection (802.11w)	Supported

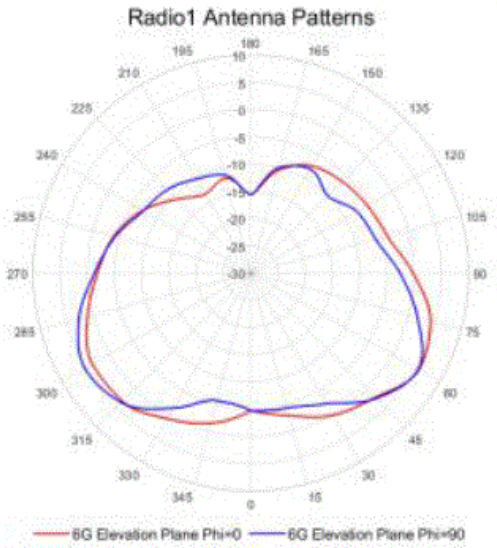
Item		**AP 7739**
Layer 2 and Layer 3 features	IP address configuration	Static IP (available only in fat AP mode) DHCP assigned IP (Option 60)
	Data forwarding modes	Local bridging (on VLAN) and tunneling to controller — Supported
	Native IPv6	Supported
	IPv6 Portal	Supported
	IPv6 SAVI	Supported
	ACL	IPv4/IPv6
	Local forwarding	Local forwarding based on SSID and VLAN
	Link Layer Discovery Protocol (LLDP)	Supported

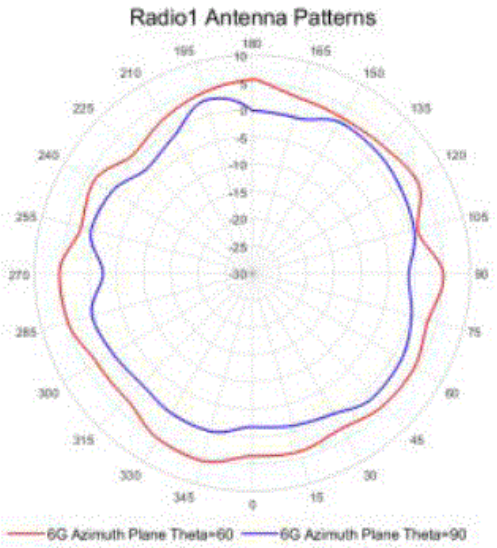
	SSID-based VLAN assignment	Supported — 1 VLAN per SSID, up to 48 SSID-VLAN pairs (1:1)
	Vlan Capacity	Supported Full ID range 1-4094 (IEEE 802.1Q)
	Dynamic VLAN assignment via RADIUS	Supported
	EoGRE Tunnel	Supported
	Multicast	IGMP Snooping/MLD Snooping
QoS	802.11e	Wi-Fi Multimedia (WMM)
	Priority	802.1p priority and marking on Ethernet ports
		Priority mapping for wired and wireless packets
	QoS policy mapping	SSID/VLAN and QoS policy mapping
	Layer 2 to Layer 4 packet filtering and traffic classification	Supported
	CAR	Supported
	Client bandwidth management	Station-based bandwidth allocation SSID-based bandwidth allocation
	Load balancing	Traffic-based load balancing Session-based load balancingFrequency-based load balancing (supports dual-band)
	Band navigation (5G priority)	Supported

Item		AP 7739
	Airtime optimization	Supported
	Airtime fairness	Supported
	Layer 4-7 application id entification	Coupled with Intelbras WLAN WCs, the APs can identify variety of applications and policy control can be implemented including priority adjustment, scheduling, blocking, and rate li miting on users
	Multicast optimization (IPv4/IPv6)	Supported
	Call Admission Control (CAC)	Session-based CAC Channel usage-based C AC
	SVP Phone	Supported
Power savin g	PPC	Supported
	Green AP mode	Supported
	Dynamic MIMO power saving	Supported
	E-APSD	Supported
	WMM Power Save	Supported
Mesh	Mesh Link connection	Supported
	Multi-hop Mesh	Supported
Certification	Anatel	01851-24-00160
	Wi-Fi Alliance	WFA129454

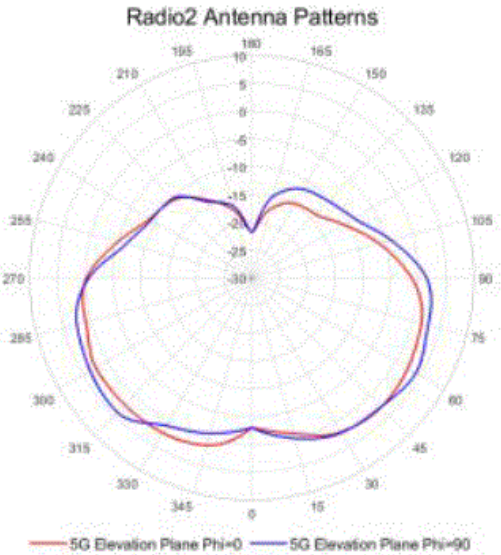
Antenna Patterns

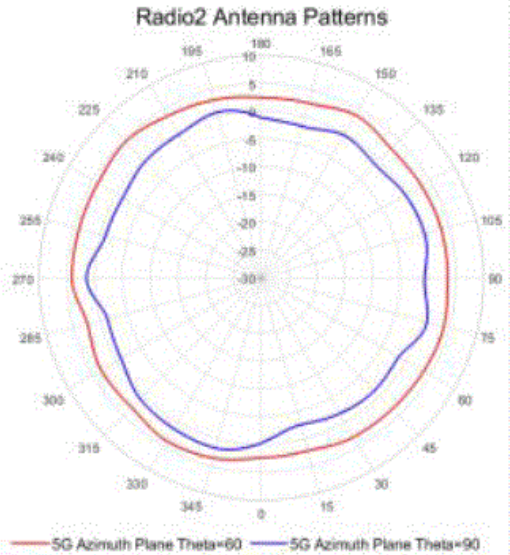
- **Radio 1** : 6GHz (AP front facing down)



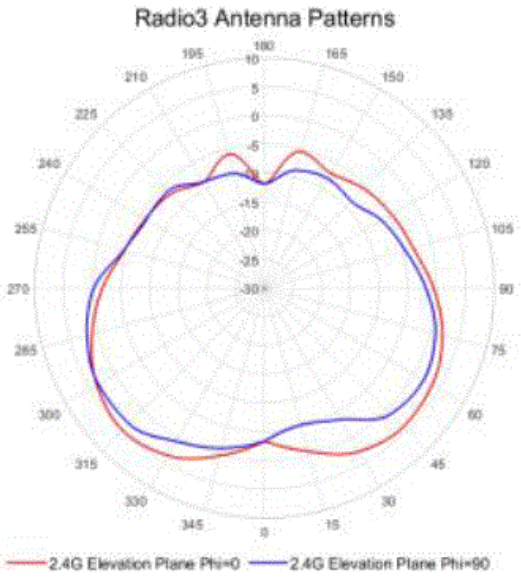


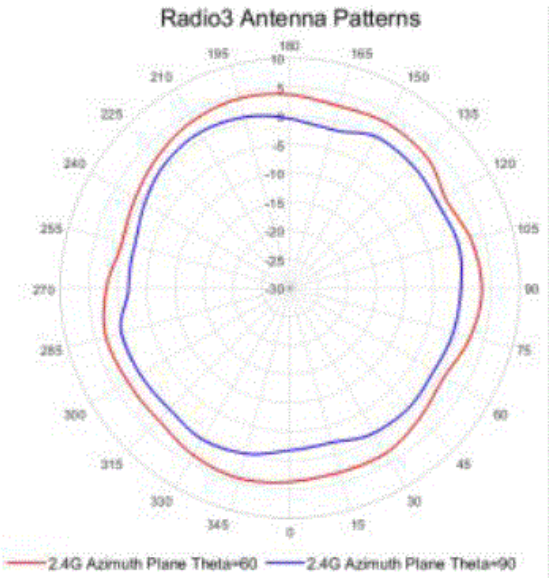
- **Radio 2**: 5GHz (AP front facing down)





- **Radio 3**: 2.4GHz (AP front facing down)





FAQ

How do I reset the device to factory defaults?

You can reset the device by using the reset button or accessing the web interface.

What is the supported power source for the AP 7739?

The AP 7739 supports a 54V DC 0.8A adapter PoE for power.

Documents / Resources

	Intelbras AP 7739 Wi Fi Router [pdf] User Guide AP 7739 Wi Fi Router, AP 7739, Wi Fi Router, Router

References

- User Manual

intelbras

AP 7739, AP 7739 Wi Fi Router, intelbras, router, Wi-Fi Router

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