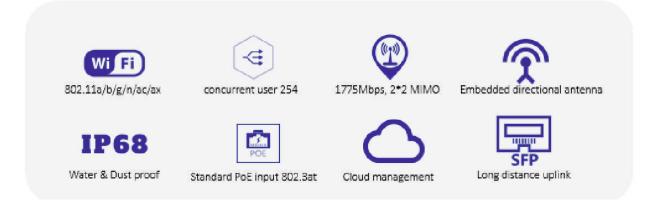


High Performance Outdoor Wireless Access Point

AP690IX (ODU)

# **Quick Overview**

AirPro AP690IX(ODU) is high performance outdoor wireless access point which can support 2.4 GHz and 5 GHz band, adopting technologies such as Multi-User Multiple-Input Multiple-Output (MU-MIMO) and orthogonal frequency division multiplexing (OFDM), providing a data transmission rate of at most 575 Mbps in 2.4GHz band and 1200Mbps in 5GHz band. It supports up to 254 concurrent users. With integrated antenna inside, AP690IX(ODU) is widely used at outdoor WIFI coverage networks, such as campus, streets, rural area, resorts and scenic spots.



# Features

## High-level outdoor 802.1ax wireless access:

The AP690IX(ODU) supports the 802.11ax standard and can operate in 2.4 GHz and 5 GHz both bands. It provides an access bandwidth up to 1.775Gbps, which can connect users up to 254 simultaneously.

# Fiber uplink for long-distance connection:

Fiber port used as uplink ports, which break through the limitations of the conventional copper port, the distance is no longer a bottleneck.

# Operating in a wide temperature range:

Thanks to deliberate hardware design and the selection of dedicated components it can operate in a broad temperature range from -40°C to 65°C.

# Highest IP68 Anti-dust & water standard:

AP690IX(ODU) comply IP68 can be deployed in the harshest outdoor environment.

# Good PoE compatibility:

AP690IX(ODU) can work well with the third-party PoE switches that support 802.3at standard.

#### High-performance RF:

The professional optimized design is employed for the RF module of the AP690IX(ODU), integrated directional antenna supports 27 dB transmission power which can greatly improve wireless coverage.

### Cloud management:

AP690IX(ODU can operate with the AirPro cloud platform seamless to provide a better costperformance solution.

## Dual-mode fit & fat:

AP690IX(ODU can work in fit or fat mode and can flexibly switch between the fit mode and the fat mode according to network planning requirements.



#### **TECHNICAL SPECIFICATIONS**

HARDWARE FEATURES	5		
Dimensions(L*W*D) (mm)	245 × 200 × 90		
Working Frequency	2.4G : 802.11b/g/n/ax		
	5G : 802.11a/n/ac/ax		
Maximum Data Rate	2.4G : 575Mbps		
	5G : 1200Mbps		
Physical Port	1 * 10/100/1000Base-T PoE port for uplink		
	1 * 1000M SFP fiber port		
PoE	802.3at		
Maximum power			
consumption	< 23.4W		
Antenna	Internal Antenna 2.4G 10dBi, 5G 10dBi		
Working frequency band	802.11a/n/ac: 5.150 GHz to 5.850 GHz		
<b>c</b> . <i>,</i>	802.11b/g/n/ax: 2.4 GHz to 2.483 GHz		
	802.11a/n/ac/ax:		
	5.150 ~ 5.350GHz		
	5.47 ~ 5.725GHz		
	5.725 ~ 5.850GHz		
Modulation technology	11b : DSS: CCK@5.5/11Mbps, DQPSK@2Mbps, DBPS	SK@1Mbps	
	11a/g : OFDM:64QAM@48/54Mbps,16QAM@24Mb	-	
	11n : MIMO-OFDM: BPSK, QPSK, 16QAM, 64QAM		
	11ac : MIMO-OFDM: BPSK, QPSK,16QAM,64QAM,2	256QAM	
	11ax : MIMO-OFDMA: BPSK, QPSK,16QAM,64QAM		
Transmit power	2.4G: 27dBm		
	5G : 27dBm		
	(Note : final output power comply with deployment re	aulation might be different)	
Power adjustment	1 dBm	guatormight be differently	
granularity	1 dbm		
Working/Storage	-40°C to + 65°C		
temperature	-45°C to + 80°C		
Working/Storage RH	5% to 95% (non-condensing)		
Protection level			
FIGUECUOITIEVEI	Product positioning	Outdoor dual-frequency	
	Working frequency band	2.4GHz and 5GHz	
	Bandwidth performance	1775Mbps	
	Virtual AP (BSSID)	32	
	Concurrent user	32 254	
	Number of spatial streams	2.4GHz:2, 5GHz:2 Yes	
	Dynamic channel adjustment (DCA)		
	Transmit power control (TPC)	Yes	
	Blind area detection and repair	Yes	
	SSID hiding RTS/CTS	Yes	
WLAN		Yes	
	RF environment scanning	Yes	
	Hybrid access	Yes	
	Restriction on the number of access users	Yes	
	Link integrity check	Yes	
	Accessing control of terminals based on		
	signal strength	Yes	
	Forcing terminals to roam based on signal strength	Yes	
	Intelligent control of terminals based on		
	airtime fairness	Yes	
	High-density application optimization	Yes	
	Space streams	2.4GHz:2, 5GHz:2	
	Frequency band	2.4GHz + 5GHz	
	80 MHz bundling	Yes	
	1200Mbps (PHY)	Yes	
	From a agregation (A MDDU)	Yes	
	Frame aggregation (A-MPDU)		
802.11ax	Frame aggregation (A-MFDO) Frame aggregation (A-MSDU)	Yes	
802.11ax enhancements		Yes Yes	
	Frame aggregation (A-MSDU)		
	Frame aggregation (A-MSDU) Maximum likelihood demodulation (MLD)	Yes	
	Frame aggregation (A-MSDU) Maximum likelihood demodulation (MLD) Transmit beamforming (TxBF)	Yes Yes	

#### **TECHNICAL SPECIFICATIONS**

Encryption       64/128 WEP, TKIP, and CCMP encryption         802.111       Yes         Portal authentication       Yes         WARI       McC address authentication       Yes         WARI       Yes         McC address authentication       Yes         PEAP authentication       Yes         Protection against DoS attacks       Frame filtering, white list, static blacklist, and dynamic blacklist         Forwarding security       Frame filtering, white list, static blacklist, and dynamic blacklist         User isolation       Previde: SSID enabling and disabiling       Yes         Accl.       Access control of free resources       Yes         Wireless SAVI       Yes       Secure access control of APs       Secure access control of APs         Secure access control of APs       Secure access control of APs       Secure access control of APs         Forwarding       IP address setting       Static IP address allocation       Preve         IP of forwarding       Yes       Yes       Yes         Forwarding       IP address setting       Static IP address allocation       Yes         IP of forwarding       Yes       Yes       Yes         Forwarding method       Yes       Yes	HARDWARE FEATURES		
Portal authentication       Yes         MAC address authentication       Yes         MAC address authentication       Yes         PEAP authentication       Yes         PEAP authentication       Yes         Protection against DoS attacks       Anti-DoS for wireless management packets         Forwarding security       Frame fittering, white list, state blacklist, and digmain to blacklist         Accl       Art L2 forwarding suppression         Isolation between pression       Isolation between pression         Access control of frame resources       Yes         Wireless SAVI       Yes         Secure access control of APs       Secure access control of APs, such as MAC authentication, or digital cartificate authentication, or Manic         Proverding       IP address setting       State IP address allocation         Proverding       Yes       Yes         Areas       ICA forwarding       Yes         Areas       IGMP encoping       Reaming         Areas       IGMP encoping       Yes         Areas       IGMP encoping       Marking         Multicast       IGMP encoping		Encryption	64/128 WEP, TKIP, and CCMP encryption
WAPi       Yes         MAC address authentication       Yes         LDAP authentication       Yes         UDAP authentication       Yes         PEAP authentication       Yes         Protection against DoS attacks       Anti-DoS for wireless management packets         Protection against DoS attacks       Anti-DoS for wireless management packets         Protection against DoS attacks       Anti-DoS for wireless management packets         Over Solution       AP L2 forwarding suppression         Issess control of free resources       Yes         ACL       Access control of various data packets such as MAC, TeVA, and IPV6 packets         Secure access control of APs       Secure access control of various data packets auton as MAC, TeVA, and IPV6 packets         Secure access control of APs       Secure access control of management frames         Yes       Mark address atting       Static IP address atlong         IPV6 forwarding       Yes       Yes         IPV6 forwarding       Yes       Yes         Prive fortal       Yes       Yes         Forwarding       Yes       Yes         IPV6 forwarding       Yes       Yes         Priority mapping       Yes       Yes		802.11i	Yes
MAC address authentication       Yes         LDAP authentication       Yes         PEAP authentication       Yes         PEAP authentication       Yes         Protection against DoS attacks       Anti-DoS for wireless management packets         Forwarding security       Frame filtering, white list, statc blacklist, and dynamic blacklist         and dynamic blacklist       Previde its SSID enabling and disabling         Access control of free resources       Yes         Vireless SAVI       Yes         ACL       Access control of free resources         Secure access control of free resources       Yes         ACL       Secure access control of an PAs, such as MAC         authentication, password authentication, or digital certificate authentication, or digital certificate authentication or dynamic         PEP address setting       Static P address configuration or dynamic         Porwarding       Yes         Forwarding       Yes         Muticast       IGMP snooping         Roaming       Yes         Portorus adjing reference       Signal strength, bit error rate, RSSI, S/N, whether neighboring APS are normally operating, etc.         VDS       Yes         QoS policy mapping       Ethernet port 802, Pidentification and marking<		Portal authentication	Yes
LDAP authentication       Yes         PEAP authentication       Yes         WIDS/WIPS       Yes         Protection against DoS attacks       Anti-DoS for wireless management packets         Forwarding security       Frame filtering, white list, static blacklist, and dynamic blacklist         User isolation       Hard Forwarding suppression         Virieless SAVI       Yes         Access control of free resources       Yes         Access control of APs       Secure access control of APs, and Ive packets         Secure access control of APs       Secure access control of APs, and Ive packets         Secure access control of APs       Secure access control of APs, and Ive packets         Secure access control of APs       Secure access control of APs, and Ive packets         Secure access control of APs       Secure access control of APs, and Ive packets         Secure access control of APs       Secure access control of APs, and PvG packets         Secure access control of APs       Secure access control of APs         B02:11W       Yes         Yes ortal       Yes         Forwarding       Yes         IPv6 forwarding       Yes         IPv6 forwarding       Yes         Priorting methoning APs are normally operating, etc.		WAPI	Yes
PEAP authentication       Yes         WIDS/WIPS       Yes         Protection against DoS attacks       Anti-DoS for wireless management packets         Forwarding security       Frame filtering, which elist, static blacklist, and dynamic blacklist         User isolation       AP L2 forwarding suppression         Isolation between client       Isolation between client         Periodic SSID enabling and disabling       Yes         Access control of free resources       Yes         ACL       Access control of APs         Secure access control of APs       Secure access control of APs, such as MAC         ACL       Access control of APs         Secure access control of APs       Secure access configuration or dynamic         PA address setting       DHCP address allocation         Prestorearding       Yes         Local forwarding       Yes         IPv6 forwarding       Yes         IPv6 portal       Yes         Local forwarding reference       Signal strength, bit error rate, RSSI, S/N, whether neighboring APs are normally operating Mapping from wireless priorities to wired priorities         WDS       Yes         AP switching reference       Signal strength, bit error rate, RSSI, S/N, whether neighboring APs are normally operating Mapping of different QOS		MAC address authentication	Yes
WDS/WPS       Yes         Protection against DoS attacks       Anti-DoS for wireless management packets         Forwarding security       Frame filtering, white list, static blacklist, and dynamic blacklist         User isolation       AP L2 forwarding suppression         Isolation between client       Periodic SSID enabling and disabling Access control of free resources       Yes         Wireless SAVI       Yes       ACL       Access control of APs, such as MAC authentication, password authentication, or digital certificate authentication deven an AP and an AC         Secure access control of APs       Secure access configuration or dynamic DHCP address altic IP address configuration or dynamic DHCP address allocation         Forwarding       Yes         IPs doress altic IP address altic IP address allocation       Yes         Forwarding       Yes         IPs doress altic IP address altic IP address configuration or dynamic DHCP address allocation       Yes         Forwarding       Yes         IPs dores       Signal strength, bit error rate, RSSI, S/N, whether neighboring APs are normally opparating, etc.         WDS       Yes         QoS policy mapping       Hearnet port 802.1P identification and marking Mapping of data strates with different QoS policies         QoS policy mapping       Yes         Used balancing based on the number of users		LDAP authentication	Yes
Protection against DoS attacks       Anti-DoS for wireless management packets         Forwarding security       Frame filtering, white list, static blacklist, and dynamic blacklist         User isolation       AP L2 forwarding suppression         Isolation to firse resources       Yes         Access control of frae resources       Yes         ACL       Access control of APs         Secure access control of APs       Secure access control of APs, such as MAC, IFv4, and IPv6 packets         Secure access control of APs       Secure access control of APs, such as MAC         authentication, password authentication, or yramic			
Forwarding security       Frame filtering, which list, static blacklist, and dynamic blacklist         User isolation       AP L2 forwarding suppression isolation between client         Periodic SSID enabling and disabiling Access control of free resources       Yes         Wireless SAVI       Yes         ACL       Access control of APs, such as MAC authentication, password authentication, or digital certificate suthentication, or digital certificate suthentication or dynamic DHCP address leaders         Secure access control of APs       Secure access control of APs, such as MAC authentication password authentication or digital certificate suthentication or dynamic DHCP address leaders         Forwarding       IP address setting       Static IP address configuration or dynamic DHCP address allocation         Forwarding       Yes       Nutlicast       IGMP snoopping Reaming         Forwarding       Yes       Yes         WDS       Yes       Yes         WMM       Yes       Yes         QoS policy mapping       Happing from wireless priorities to wired priorities       Yes SIDs/VLANs to different QoS policies         QoS policy mapping       Yes       Yes       Yes         QoS policy mapping       Yes       Mapping of different QoS policies         Mapping of different packst filtering and flow classification Load balancing based on thenumber of use			
Security       and dynamic blacklist         Security       Periodic SSID enabling and disabling Access control of there resources Wireless SAVI       Yes         ACL       Access control of various data packets such as MAC, IPV4, and IPv6 packets       Secure access control of APs         Secure access control of APs       Secure access control of APs       Secure access control of APs, such as MAC authentication, password authentication, or digital certificates authentication or dynamic DHCP address and IPv6 packets         Forwarding       IP address setting       Static IP address configuration or dynamic DHCP address allocation         Forwarding       Yes       Yes         IPv6 forwarding       Yes         VDS       Yes         WDS       Yes         VDS       Yes         QoS policy mapping       Ethernet port 802.P identification and marking         Mapping of diatrength, bit error rate, RSSI, S/N, whether neiphobring APs are normally opperating, etc.         QoS policy mapping       GooS policy mapping         G		-	
Security   Isolation between client     Periodic SDD enabling and disabling Access control of free resources Wireless SAVI   Yes Yes     ACL   ACCE     Secure access control of APs   Secure access control of various data packets such as MAC, IPV4, and IPV6 packets     Secure access control of APs   Secure access control of APs     authentication, password authentication, or digital cartificate authentication between an AP and an AC     802.11W   Yes, encryption of management frames     IPv6 forwarding   Yes     IPv6 forwarding   Yes     IPv6 forwarding   Yes     IPv6 forwarding   Yes     IVDS   Yes     AD switching reference   Signal strength, bit error rate, RSSI, S/N, whether neighboring APs are normally opportaing, etc.     VDS   Yes     VDS   Yes     QoS policy mapping   Ethernet port 802.1P identification and marking     QoS policy mapping   Mapping of different SSIDe/VLANs to different QoS policies     GoS   L2-L4 packet filtering and flow classification Load balancing   Yes     Load balancing   Call admission control (CAC)   CAC     Power saving mode Automatic emergency mechanism of APs Intelligent identification ortherminals   Bandwidth limit based on SSIDs Bandwidth limit based on SSIDs		Forwarding security	
Periodic SSID enabling and disabling Access control of the resources   Yes     ACL   Access control of various data packets such as MAC, IPv4, and IPv6 packets     Secure access control of APs   Secure access control of APs, such as MAC authentication, password authentication, or digital certificate authentication, or authentication, password authentication, or authentication between an AP and an AC     802:11W   Yes     Forwarding   IP address setting     IPv6 forwarding IPv6 forwarding   Yes     Local forwarding IPv6 portal   Yes     Gods   USB     VDS   Yes     VDS   Yes     VDS   Yes     VDS   Yes     VDS   Yes     QoS policy mapping   Ethernet port 802.1P identification and marking     Gods   L2-L4 packet filtering and flow classification Load balancing     Gods   L2-L4 packet filtering and flow classification Load balancing     Gods   L2-L4 packet filtering and flow classification Load balancing     Gods   L2-L4 packet filtering and flow classification Load balancing based on user traffic Load balancing based on user traffic Load balancing based on specific data streams     Gold balancing   Call admission control (CAC) Power saving mode Automatic emergency mechanism of APs Intelligent identification of treminals     Bandwidth limit based on SSIDs   Bandwidth limit based on SSIDs     Bandwidth limit bas		User isolation	AP L2 forwarding suppression
Access control of free resources   Yes     Wriveless SAVI   Yes     ACL   Access control of various data packets such as MAC, IPV4, and IPV6 packets     Secure access control of APs   Secure access control of APs, such as MAC     Boot   authentication, password authentication, or digital certificate authentication between an AP and an AC     Boot.11W   Yes, encryption of management frames     IP address setting   DHCP address allocation     IP of forwarding   Yes     IP of forwarding   Yes     IP of forwarding   Yes     ID address of thing reference   Signal strength, bit error rate, RSSI, S/N, whither neighboring APs are normally operating, etc.     WDS   Yes     WDS   Yes     QoS policy mapping   Ethernet port 802:1P identification and marking     QoS   Local policy mapping     QoS   Local balancing     QoS   Local balancing     QoS   Local balancing     Load balancing   Yes     Bandwidth limit   Bandwidth limit based on specific data streams     Real admission control (CAC)   CAC based on the number of users     Call admission control (CAC)   CAC based on the number of users     Call admission control (CAC)   CAC based on the number of users     Power saving mode   Yes	Security		
Wireless SAVI   Yes     ACL   ACcesss control of Various data packets such as MAC, IPv4, and IPv6 packets     Secure access control of APs   Secure access control of APs, such as MAC authentication, password authentication, or digital certificate authentication, or digital certificate authentication of management frames     802.11W   Yes, encryption of management frames     IP address setting   Static IP address configuration or dynamic DHCP address allocation     IPv6 forwarding   Yes     IPv6 portal   Yes     Local forwarding   Yes     Multicast   IGMP snooping Roaming     WDS   Yes     WDS   Yes     WMM   Yes     Priority mapping   Ethernet port 802.1P identification and marking     QoS policy mapping   Mapping of different SDIS/VLANs to different QoS policies     QoS   L2-L4 packet filtering and flow classification Load balancing based on the number of users Load balancing based on serverific Load balancing based on frequency bands Bandwidth limit     Bandwidth limit   Bandwidth limit based on specific data streams     Call admission control (CAC)   CAC based on the number of users Load balancing based on serverific data streams     Call admission control (CAC)   CAC based on the number of users Load balancing based on specific data streams     Call admission control (CAC)   CAC based on the number of users Load balancing based on specific data streams </td <td></td> <td></td> <td></td>			
ACL     Access control of various data packets such as MAC, PV-4, and PVo packets       Secure access control of APs     Secure access control of APs, such as MAC, authentication, password authentication, or adjustal certificate authentication between an AP and an AC       802.11W     Yes, encryption of management frames       IP address setting     Static IP address configuration or dynamic DHCP address allocation       Proverding     Yes       IP v6 forwarding     Yes       Multicast     IGMP snooping       Rearning     Yes       AP and subtributing reference     Signal strength, bit error rate, RSSI, S/N, whether neighboring APs are normally operating etc.       WDS     Yes       VMM     Yes       Priority mapping     Ethernet port 802.1P identification and marking       Mapping from wrieless priorities to wired priorities     Mapping of data streams that match with different QoS policies       QoS     L2-L4 packet filtering and flow classification Load balancing based on the number of users Load balancing based on specific data streams       Bandwidth limit     Bandwidth limit based on specific data streams       Call admission control (CAC)     CAC based on the number of users Load balancing based on terminals Bandwidth limit based on specific data streams       Call admission control (CAC)     CAC basased on ten number of users Load balancing based on			
QoS     Secure access control of APs     as MAC, IPv4, and IPv6 packets       Secure access control of APs     Secure access control of APs, such as MAC       authentication, password authentication, or     digital contricate authentication between an AP and an AC       802.11W     Yes, encryption of management frames       IP address setting     DHCP address configuration or dynamic       IPv6 forwarding     Yes       IPv6 forwarding     Yes       Multicast     IGMP snooping       Roaming     Yes       AP switching reference     Signal strength, bit error rate, RSSI, S/N, whether neighboring APs are normally operating, etc.       WDS     Yes       VMM     Yes       Priority mapping     Ethernet port 802.1P identification and marking       Mapping from wireless priorities to wired priorities     Mapping of different SSIDs/VLANs to different QS policies       QoS policy mapping     L2-14 packet filtering and flow classification     Yes Mapping of different QS policies       QoS     L2-14 packet filtering and flow classification     Local balancing based on the number of users       Load balancing     Call admission control (CAC)     CAC based on frequency bands       Bandwidth limit     Bandwidth limit based on sSIDS     Bandwidth limit based on the number of users </td <td></td> <td></td> <td></td>			
Secure access control of APs       Secure access control of APs, such as MAC authentication, pasword authentication, or digital certificate authentication authentication, or AP and an AC         802.11W       Yes, encryption of management frames         IP address setting       Static IP address configuration or dynamic DHCP address allocation         Forwarding       Yes         Local forwarding       Yes         Multicast       IGMP snooping         Roaming       Yes         AP switching reference       Signal strength, bit error rate, RSSI, S/N, whether neighboring APs are normally operating, etc.         WDS       Yes         VDS       Yes         QoS policy mapping       Ethernet pot 802.1P identification and marking         Mapping of different QoS policies       Mapping of different QoS policies         L2-L4 packet filtering and flow classification       Yes: MAC, IPv4, and IPv6 packets         Load balancing       Load balancing based on user traffic Load balancing based on server balas         Bandwidth limit       Bandwidth limit based on aPs         Bandwidth limit       Bandwidth limit based on trainals Bandwidth limit based on trainals         Bandwidth limit identification of terminals       Yes		ACL	-
GoS   authentication, password authentication, or digital cartificate authentication between an AP and an AC B02:1W   Ye and an AC Yes, antificate authentication or dynamic DHCP address allocation     Forwarding   IP address setting   Static IP address allocation     IPv6 forwarding   Yes     Local forwarding   Yes     Multicast   IGMP snooping     Roaming   Yes     AP switching reference   Signal strength, bit error rate, RSSI, S/N, whether neighboring APs are normally operating, etc.     VDS   Yes     VMM   Yes     Priority mapping   Ethernet port 802.1P identification and marking     GoS policy mapping   Ethernet port 802.1P identification and marking     Local balancing   Ves     Local balancing   Yes     GoS   L2-L4 packet filtering and flow classification     Load balancing   Yes     Bandwidth limit   Bandwidth limit based on sSIDS Bandwidth limit based on sPS     Bandwidth limit   Bandwidth limit based on specific data streams     Call admission control (CAC)   CAC based on the number of users     Power saving mode   Yes     Automatic emergency mechanism of APs Intelligent identification of terminals   Yes			· · · ·
Box     digital certificate authentication between an AP and an AC       Box     Yes, encryption of management frames       IP address setting     Static IP address configuration or dynamic DHCP address allocation       IPv6 forwarding     Yes       Local forwarding     Yes       IPv6 forwarding     Yes       IPv6 forwarding     Yes       Multicest     IGMP snooping       Reaming     Yes       AP switching reference     Signal strength, bit error rate, RSSI, S/N, whether neighboring APs are normally operating, etc.       WDS     Yes       WMM     Yes       Priority mapping     Ethernet port 802.1P identification and marking       Mapping of different SDIS/VLANs to different QoS policies     Mapping of different SDIS/VLANs to different QoS policies       QoS     Local balancing     Local balancing       QoS     Local balancing     Local balancing       QoS     Call admission control (CAC)     CAC based on the number of users treams       Call admission control (CAC)     CAC based on the number of users treams       Call admission control (CAC)     Yes       Power saving mode     Yes       Automatic emergency mechanism of APs     Yes       Intelli		Secure access control of APs	-
AP and an AC Yes, encryption of management frames         IP address setting       Static IP address configuration or dynamic DHCP address allocation         IPv6 forwarding       Yes         IPv6 portal       Yes         Local forwarding       Yes         Multicast       IGMP snooping         Roaming       Yes         AP switching reference       Signal strength, bit error rate, RSSI, S/N, whether neighboring APs are normally operating, etc.         WDS       Yes         WMM       Yes         QoS policy mapping       Ethernet port 802.1P identification and marking         QoS policy mapping       Mapping of different SSDs/VLANs to different QoS policies         QoS       L2-L4 packet filtering and flow classification Load balancing       Load balancing based on the number of users Load balancing based on netwinals         Bandwidth limit       Bandwidth limit based on SSIDs Bandwidth limit based on SSIDs Bandwidth limit based on secific data streams         Call admission control (CAC)       CAC based on the number of users Load balancing based on therminals Bandwidth limit based on specific data streams         Call admission control (CAC)       CAC based on the number of users Load balancing based on therminals         Bandwidth limit comergenc			
802.11W       Yes, encryption of management frames         IP address setting       Static IP address configuration or dynamic DHCP address allocation         IPv6 forwarding       Yes         Local forwarding       Yes         Multicast       IGMP snooping         Roaming       Yes         AP switching reference       Signal strength, bit error rate, RSSI, S/N, whether neighboring APs are normally operating, etc.         WDS       Yes         Priority mapping       Ethernet port 802.1P identification and marking         QoS policy mapping       Mapping of different SSIDs/VLANs to different QoS policies         QoS       Local balancing       Yes: MAC, IPv4, and IPv6 packets         Bandwidth limit       Bandwidth limit       Bandwidth limit based on APs Bandwidth limit based on terminals         GoS       Call admission control (CAC)       CAC based on the number of users treams         Call admission control (CAC)       CAC based on the number of users treams       Streams         Call admission control (CAC)       CAC based on the number of users treams       Streams         Power saving mode       Yes       Yes         Prover saving mode       Yes       Yes         Prover saving mode       Yes       Yes			
IP address setting     Static IP address configuration or dynamic DHCP address allocation       IPv6 forwarding     Yes       IPv6 portal     Yes       Local forwarding     Yes       Multicast     IGMP snooping       Roaming     Yes       AP switching reference     Signal strength, bit error rate, RSSI, S/N, whether neighboring APs are normally operating, etc.       WDS     Yes       WMM     Yes       Priority mapping     Ethernet port 802.1P identification and marking       QoS policy mapping     Mapping of different SSIDs/VLANs to different QoS policies       Load balancing     Load balancing       Load balancing     Load balancing based on the number of users       Load balancing     Load balancing based on terminals       Bandwidth limit     Bandwidth limit based on SSIDs       Bandwidth limit     Bandwidth limit based on terminals       Bandwidth limit based on terminals     Static attreams       Call admission control (CAC)     CAC based on the number of users       Power saving mode     Yes       Automatic emergency mechanism of APs     Yes       Intelligent identification of terminals     Yes		000 1110/	
Powarding     DHCP address allocation       Forwarding     Yes       IPv6 forwarding     Yes       Local forwarding     Yes       Multicast     IGMP snooping       Roaming     Yes       AP switching reference     Signal strength, bit error rate, RSSI, S/N, whether neighboring APs are normally operating, etc.       WDS     Yes       WMM     Yes       Priority mapping     Ethernet port 802.1P identification and marking       Mapping of different SSIDs/VLANs to different QoS policies     Mapping of data streams that match with different QoS policies       QoS     L2-L4 packet filtering and flow classification     Yes: MAC, IPv4, and IPv6 packets       Load balancing     Load balancing based on trequency bands       Bandwidth limit     Bandwidth limit based on SSIDs       Bandwidth limit     Bandwidth limit based on SIDs       Bandwidth limit based on specific data streams     Streams       Call admission control (CAC)     CAC based on the number of users       Power saving mode     Yes       Power saving m			
Forwarding     Yes       Forwarding     IPv6 forwarding     Yes       IPv6 portal     Yes       Local forwarding     Yes       Multicast     IGMP snooping       Reaming     Yes       AP switching reference     Wignal strength, bit error rate, RSSI, S/N, whether neighboring APs are normally opperating, etc.       WDS     Yes       WMM     Yes       Priority mapping     Ethernet port 802.1P identification and marking       GoS policy mapping     GoS policy mapping       L2-L4 packet filtering and flow classification     Yes: MAC, IPv4, and IPv6 packets       Load balancing     Load balancing based on ser traffic       Load balancing     Load balancing based on ser traffic       Load balancing     Load balancing based on ser traffic       Load balancing     Bandwidth limit       Bandwidth limit     Bandwidth limit based on specific data streams       Call admission control (CAC)     CAC based on the number of users       Power saving mode     Yes       Automatic emergency mechanism of APs     Yes       Intelligent identification of terminals     Yes		IP address setting	
Forwarding     IPv6 portal     Yes       Local forwarding     Yes       Multicast     IGMP snooping       Reaming     Yes       AP switching reference     Signal strength, bit error rate, RSSI, S/N, whether neighboring APs are normally operating, etc.       WDS     Yes       WDM     Yes       Priority mapping     Ethernet port 802.1P identification and marking       Mapping from wireless priorities to wired priorities     Mapping of different SSIDs/VLANs to different QoS policies       QoS     L2-L4 packet filtering and flow classification     Lead balancing based on the number of users       Load balancing     Load balancing based on the number of users     Load balancing based on terminals       Bandwidth limit     Bandwidth limit based on SSIDs     Bandwidth limit based on sersific data streams       Call admission control (CAC)     CAC based on the number of users     Power saving mode       Query saving mode     Yes     Yes		IPv6 forwarding	
Forwarding     Local forwarding     Yes       Multicast     IGMP snooping       Roaming     Yes       AP switching reference     Signal strength, bit error rate, RSSI, S/N, whether neighboring APs are normally operating, etc.       WDS     Yes       WMM     Yes       Priority mapping     Ethernet port 802.1P identification and marking       Mapping from wireless priorities to wired priorities     Mapping of different SSIDs/VLANs to different QoS policies       QoS     L2-L4 packet filtering and flow classification     Yes: MAC, IPv4, and IPv6 packets       Load balancing     Load balancing based on the number of users       Bandwidth limit     Bandwidth limit based on SSIDs       Bandwidth limit     Bandwidth limit based on specific data streams       Call admission control (CAC)     CAC based on the number of users       Power saving mode     Yes       Yes     Yes			
QoS     Multicast Rearning     IGMP snooping Yes       AP switching reference     Signal strength, bit error rate, RSSI, S/N, whether neighboring APs are normally operating, etc.       WDS     Yes       Priority mapping     Ethernet port 802.1P identification and marking       QoS policy mapping     Mapping of different SSIDs/VLANs to different QoS policies       L2-L4 packet filtering and flow classification     Yes: Load balancing based on user traffic Load balancing       Bandwidth limit     Bandwidth limit based on frequency bands Bandwidth limit     Bandwidth limit based on sSIDs Bandwidth limit based on specific data streams       Call admission control (CAC)     CAC based on the number of users       Power saving mode Automatic emergency mechanism of APs Intelligent identification of terminals     Yes	Forwarding		
Rearing     Yes       AP switching reference     Signal strength, bit error rate, RSSI, S/N, whether neighboring APs are normally operating, etc.       WDS     Yes       WDM     Yes       Priority mapping     Ethernet port 802.1P identification and marking       Mapping from wireless priorities to wired priorities     Mapping of different SSIDs/VLANs to different QS policies       QoS     L2-L4 packet filtering and flow classification     Yes: MAC, IPV4, and IPv6 packets       Load balancing     Load balancing based on the number of users     Load balancing based on specific data streams       Bandwidth limit     Bandwidth limit based on APs     Bandwidth limit based on SIDs       Bandwidth limit     Bandwidth limit based on specific data streams     Call admission control (CAC)       Power saving mode     Yes     Yes       Automatic emergency mechanism of APs     Yes       Intelligent identification of terminals     Yes	l	0	
AP switching reference     Signal strength, bit error rate, RSSI, S/N, whether neighboring APs are normally operating, etc.       WDS     Yes       WMM     Yes       Priority mapping     Ethernet port 802.1P identification and marking       Mapping from wireless priorities to wired priorities     Mapping of different SSIDs/VLANs to different QoS policies       QoS     L2-L4 packet filtering and flow classification     Yes: MAC, IPv4, and IPv6 packets       Load balancing     Load balancing based on the number of users     Load balancing based on specific data streams       Bandwidth limit     Bandwidth limit based on SSIDs     Bandwidth limit based on specific data streams       Call admission control (CAC)     CAC based on the number of users     Power saving mode       Power saving mode     Yes     Yes			
QoS     WDS     Yes       WMM     Yes       Priority mapping     Ethernet port 802.1P identification and marking       Mapping from wireless priorities to wired     priorities       QoS policy mapping     Mapping of different SSIDs/VLANs to different QoS policies       Mapping of data streams that match with different QoS policies     Mapping of data streams that match with different packet fields to different QoS policies       L2-L4 packet filtering and flow classification     Yes: MAC, IPv4, and IPv6 packets       Load balancing     Load balancing based on the number of users Load balancing based on trequency bands       Bandwidth limit     Bandwidth limit based on SSIDs       Bandwidth limit     Bandwidth limit based on specific data streams       Call admission control (CAC)     CAC based on the number of users       Power saving mode     Yes       Automatic emergency mechanism of APs     Yes       Intelligent identification of terminals     Yes			
WDS     operating, etc.       WDS     Yes       WMM     Yes       Priority mapping     Ethernet port 802.1P identification and marking       Mapping from wireless priorities to wired     morities       QoS policy mapping     Mapping of different SSIDs/VLANs to different QoS policies       Mapping of data streams that match with different packet fields to different QoS policies     Mapping of data streams that match with different packet fields to different QoS policies       L2-L4 packet filtering and flow classification     Yes: MAC, IPv4, and IPv6 packets       Load balancing     Load balancing based on the number of users       Load balancing     Load balancing based on specific data streams       Bandwidth limit     Bandwidth limit based on SSIDs       Bandwidth limit     Bandwidth limit based on the number of users       Call admission control (CAC)     CAC based on the number of users       Power saving mode     Yes       Automatic emergency mechanism of APs     Yes       Intelligent identification of terminals     Yes			
WDS     Yes       WMM     Yes       Priority mapping     Ethernet port 802.1P identification and marking       Mapping from wireless priorities to wired priorities     Mapping from wireless priorities to wired priorities       QoS policy mapping     Mapping of different SSIDs/VLANs to different QoS policies       L2-L4 packet filtering and flow classification     Yes: MAC, IPV4, and IPv6 packets       Load balancing     Load balancing based on the number of users       Bandwidth limit     Bandwidth limit based on APs       Bandwidth limit     Bandwidth limit based on SSIDs       Bandwidth limit based on terminals     Bandwidth limit based on terminals       Call admission control (CAC)     CAC based on the number of users       Power saving mode     Yes       Automatic emergency mechanism of APs     Yes       Intelligent identification of terminals     Yes			
Priority mappingEthernet port 802.1P identification and marking Mapping from wireless priorities to wired prioritiesQoS policy mappingMapping of different SSIDs/VLANs to different QoS policies Mapping of data streams that match with different packet fields to different QoS policiesQoSL2-L4 packet filtering and flow classification Load balancingYes: MAC, IPV4, and IPv6 packets Load balancing based on the number of users Load balancing based on frequency bandsBandwidth limitBandwidth limit based on APs Bandwidth limit based on SSIDs Bandwidth limit based on terminals Bandwidth limit based on specific data streamsCall admission control (CAC)CAC based on the number of users Power saving modePower saving modeYesAutomatic emergency mechanism of APs Intelligent identification of terminals YesYes		WDS	
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QoS policy mappingMapping from wireless priorities to wired prioritiesQoS policy mappingMapping of different SSIDs/VLANs to different QoS policies Mapping of data streams that match with different packet fields to different QoS policiesQoSL2-L4 packet filtering and flow classification Load balancingYes: MAC, IPv4, and IPv6 packets Load balancing based on the number of users Load balancing based on seer traffic Load balancing based on seer traffic Load balancing based on the number of users Bandwidth limitBandwidth limitBandwidth limit based on SSIDs Bandwidth limit based on specific data streamsCall admission control (CAC)CAC based on the number of users Power saving modePower saving modeYes Yes Automatic emergency mechanism of APs Intelligent identification of terminals		Priority mapping	Ethernet port 802.1P identification and
QoS policy mappingprioritiesQoS policy mappingMapping of different SSIDs/VLANs to different QoS policiesMapping of data streams that match with different packet fields to different QoS policiesL2-L4 packet filtering and flow classificationYes: MAC, IPv4, and IPv6 packetsLoad balancingLoad balancing based on the number of users Load balancing based on user traffic Load balancing based on seed on the number of users Bandwidth limitBandwidth limitBandwidth limit based on APs Bandwidth limit based on sSIDs Bandwidth limit based on terminals Bandwidth limit based on terminals			marking
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QoSL2-L4 packet filtering and flow classificationYes: MAC, IPv4, and IPv6 packetsQoSLoad balancingLoad balancing based on the number of users Load balancing based on user traffic Load balancing based on frequency bandsBandwidth limitBandwidth limitBandwidth limit based on APs Bandwidth limit based on terminals Bandwidth limit based on specific data streamsCall admission control (CAC)CAC based on the number of users Power saving mode Automatic emergency mechanism of APs Intelligent identification of terminalsYes			priorities
QoSL2-L4 packet filtering and flow classification Load balancingMapping of data streams that match with different packet fields to different QoS policiesQoSL2-L4 packet filtering and flow classification Load balancingYes: MAC, IPv4, and IPv6 packets Load balancing based on the number of users Load balancing based on user traffic Load balancing based on frequency bandsBandwidth limitBandwidth limit based on APs Bandwidth limit based on SSIDs Bandwidth limit based on terminals Bandwidth limit based on specific data streamsCall admission control (CAC)CAC based on the number of users Power saving modePower saving mode Automatic emergency mechanism of APs Intelligent identification of terminalsYes		QoS policy mapping	Mapping of different SSIDs/VLANs to
QoSL2-L4 packet filtering and flow classificationYes: MAC, IPv4, and IPv6 packetsLoad balancingLoad balancing based on the number of usersLoad balancingLoad balancing based on user trafficLoad balancing based on frequency bandsBandwidth limitBandwidth limitBandwidth limit based on APsBandwidth limitBandwidth limit based on terminalsBandwidth limitBandwidth limit based on terminalsBandwidth limitBandwidth limit based on terminalsBandwidth limit based on the number of usersYesPower saving modeYesAutomatic emergency mechanism of APsYesIntelligent identification of terminalsYes			different QoS policies
QoSL2-L4 packet filtering and flow classification Load balancingYes: MAC, IPv4, and IPv6 packets Load balancing based on the number of users Load balancing based on user traffic Load balancing based on frequency bandsBandwidth limitBandwidth limit Bandwidth limitBandwidth limit based on APs Bandwidth limit based on SSIDs Bandwidth limit based on terminals Bandwidth limit based on specific data streamsCall admission control (CAC)CAC based on the number of users Power saving mode Automatic emergency mechanism of APs Intelligent identification of terminalsYes			Mapping of data streams that match with
QoSL2-L4 packet filtering and flow classification Load balancingYes: MAC, IPv4, and IPv6 packets Load balancing based on the number of users Load balancing based on user traffic Load balancing based on frequency bandsBandwidth limitBandwidth limit based on APs Bandwidth limit based on SSIDs Bandwidth limit based on terminals Bandwidth limit based on specific data streamsCall admission control (CAC)CAC based on the number of users Power saving mode Automatic emergency mechanism of APs Intelligent identification of terminals			different packet fields to different QoS
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Load balancing based on frequency bandsBandwidth limitBandwidth limit based on APsBandwidth limit based on SSIDsBandwidth limit based on terminalsBandwidth limit based on specific datastreamsCall admission control (CAC)CAC based on the number of usersPower saving modeYesAutomatic emergency mechanism of APsYesIntelligent identification of terminalsYes	QoS	Load balancing	-
Bandwidth limit     Bandwidth limit based on APs       Bandwidth limit     Bandwidth limit based on SSIDs       Bandwidth limit based on terminals     Bandwidth limit based on specific data       Streams     Streams       Call admission control (CAC)     CAC based on the number of users       Power saving mode     Yes       Automatic emergency mechanism of APs     Yes       Intelligent identification of terminals     Yes			-
Bandwidth limit based on SSIDs       Bandwidth limit based on terminals       Bandwidth limit based on specific data       streams       Call admission control (CAC)     CAC based on the number of users       Power saving mode     Yes       Automatic emergency mechanism of APs     Yes       Intelligent identification of terminals     Yes			
Bandwidth limit based on terminals       Bandwidth limit based on specific data       Streams       Call admission control (CAC)     CAC based on the number of users       Power saving mode     Yes       Automatic emergency mechanism of APs     Yes       Intelligent identification of terminals     Yes		Bandwidth limit	
Call admission control (CAC)     Bandwidth limit based on specific data streams       Call admission control (CAC)     CAC based on the number of users       Power saving mode     Yes       Automatic emergency mechanism of APs     Yes       Intelligent identification of terminals     Yes			
StreamsCall admission control (CAC)CAC based on the number of usersPower saving modeYesAutomatic emergency mechanism of APsYesIntelligent identification of terminalsYes			
Call admission control (CAC)CAC based on the number of usersPower saving modeYesAutomatic emergency mechanism of APsYesIntelligent identification of terminalsYes			
Power saving modeYesAutomatic emergency mechanism of APsYesIntelligent identification of terminalsYes			
Automatic emergency mechanism of APsYesIntelligent identification of terminalsYes			
Intelligent identification of terminals Yes		-	
Multicast ennancement Multicast to unicast			



#### Model No. AP690IX (ODU)

#### **TECHNICAL SPECIFICATIONS**

HARDWARE FEATURES		
	Network management	Centralized management through an AC;
		both fit and fat modes
	Maintenance mode	Both local and remote maintenance
	Log function	Local logs, Syslog, and log file export
	Alarm	Yes
Management	Fault detection	Yes
	Statistics	Yes
	Switching between the fat and fit modes	An AP working in fit mode can switch to the
		fat mode through a wireless AC;
		An AP working in fat mode can switch to the
		fit mode through a local control port or
		Telnet.
	Remote probe analysis	Yes
	Watchdog	Yes
	Value added marketing	Support: various apps based on intelligent
		terminals, advertising push based on
Value added service		location, personalized push of portals
	Value added authentication	WeChat, SMS, QR code
	Passenger flow analysis	Yes



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