Product Overview
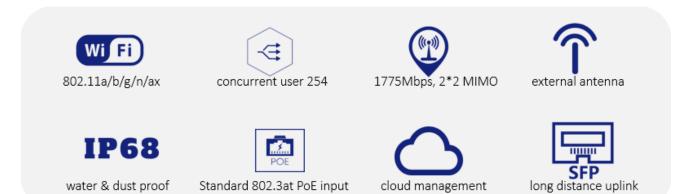
AirPro AP690EX(ODU) is high performance outdoor wireless access point which can support 2.4 GHz and 5 GHz band, adopting technologies such as Multi-User Multiple-Input Multiple-Output (MU-MIMO) and orthogonal frequency division multiplexing (OFDM), providing a data transmission rate of at most 575 Mbps in 2.4GHz band and 1200Mbps in 5GHz band. It supports up to 254 concurrent users. With external antenna, AP690EX(ODU) is widely used at outdoor WIFI coverage networks, such as campus, streets, rural area, resorts and scenic spots.

Wi Fi
802.11a/b/g/n/ax

concurrent user 254

1775Mbps, 2*2 MIMO

external antenna

IP68
water & dust proof

POE
Standard 802.3at PoE input

cloud management

SFP
long distance uplink

Highlights

High-level outdoor 802.1ax wireless access
The AP690EX(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
AP690EX(ODU) comply IP68 can be deployed in the harshest outdoor environment.

Multiple antenna options
AP690EX(ODU) supports external antennal (omnidirectional, directional), the customer can make use accordingly.

Good PoE compatibility
AP690EX(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 AP690EX(ODU), integrated directional antenna supports 27 dB transmission power which can greatly improve wireless coverage.

Support WDS mode

Support WDS mode under both fit/fat AP mode. Use 2.4GHz and 5GHz achieve a wireless bridging function

Cloud management

AP690EX(ODU can operate with the AirPro cloud platform seamless to provide a better cost-performance solution;

Dual-mode fit & fat

AP690EX(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.

Product Specifications

Hardware Specifications

Item	AP690EX(ODU
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	External antenna
Working frequency band	802.11a/n/ac: 5.150 GHz to 5.850 GHz 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, DBPSK@1Mbps 11a/g：OFDM:64QAM@48/54Mbps,16QAM@24Mbps, QPSK@12/18Mbps, BPSK@6/9Mbps 11n：MIMO-OFDM: BPSK, QPSK,16QAM,64QAM 11ac：MIMO-OFDM: BPSK, QPSK,16QAM,64QAM,256QAM 11ax: MIMO-OFDMA: BPSK, QPSK,16QAM,64QAM,256QAM,1024QAM
Transmit power	2.4G: 27dBm 5G：27dBm (*Note：final output power comply with deployment regulation might be different*)
Power adjustment granularity	1 dBm
Working/Storage temperature	-40°C to +65°C –45°C to +80°C
Working/Storage RH	5% to 95% (non-condensing)
Protection level	IP68

Software Specifications

Item	Feature	AP690EX(ODU)
WLAN	**Product positioning**	Outdoor dual frequency
	Working frequency band	2.4 GHz and 5 GHz
	Bandwidth performance	1775Mbps
	Virtual AP (BSSID)	32
	Concurrent user	254
	Number of spatial streams	2.4G: 2 5G:2
	Dynamic channel adjustment (DCA)	Yes
	Transmit power control (TPC)	Yes
	Blind area detection and repair	Yes
	SSID hiding	Yes
	RTS/CTS	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
802.11ax	**Space streams**	2.4GHz:2, 5GHz:2
	Frequency band	2.4GHz + 5GHz
	80 MHz bundling	Yes
	1200Mbps（PHY）	Yes
	Frame aggregation (A-MPDU)	Yes
	Frame aggregation (A-MSDU)	Yes
	Maximum likelihood demodulation (MLD)	Yes
	Transmit beamforming (TxBF)	Yes
	Maximum ratio combining (MRC)	Yes
	Space-time block coding (STBC)	Yes
	Low-density parity-check code (LDPC)	Yes
Security	**Encryption**	64/128 WEP, TKIP, and CCMP encryption
	802.11i	Yes
	Portal authentication	Yes
	WAPI	Yes
	MAC address 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

Item	Feature	AP690EX(ODU)
		blacklist, and dynamic blacklist
	User isolation	AP L2 forwarding suppression Isolation between client
	Periodic SSID enabling and disabling	Yes
	Access control of free resources	Yes
	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, such as MAC authentication, password authentication, or digital certificate authentication between an AP and an AC
	802.11W	Yes, encryption of management frames
Forwarding	**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
QoS	**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 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 user traffic Load balancing based on frequency bands
	Bandwidth limit	Bandwidth limit based on APs 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
	Multicast enhancement	Multicast to unicast
Management	**Network management**	**Centralized management through an AC; both fit and fat modes**
	Maintenance mode	Both local and remote maintenance

Item	Feature	AP690EX(ODU)
	Log function	Local logs, Syslog, and log file export
	Alarm	Yes
	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 service	**Value added marketing**	Support: various apps based on intelligent terminals, advertising push based on location, personalized push of portals
	Value added authentication	WeChat, SMS, QR code
	Passenger flow analysis	yes