SUNDRAY

X-LINK SERIES

XAP-6230-E Datasheet

http://www.sundray.com

1 Product Overview

SUNDRAY XAP-6230-E is a new-generation 802.11ax high-performance wireless access point developed by SUNDRAY. XAP-6230-E is embedded with 2*2 MU-MIMO intelligent antenna matrix. It supports dual frequencies of 802.11ax/ac/a/n and 802.11b/g/n/ ax, and the maximum transmission rate can reach up to 2976 Mbps.

XAP-6230-E adopts the Gigabit port for uplink. Both local power supply and PoE remote power supply are supported. In cooperation with the SUNDRAY XMG series controllers, XAP-6230-E brings unrivaled quick and secure access experience to users.

SUNDRAY XAP-6230-E

Top-speed Wireless Experience

802.11ax high-speed access

SUNDRAY XAP-6230-E series products comply with the new-generation 802.11ax standard and are embedded with an intelligent antenna matrix. The 2.4 GHz RF provides a transmission rate high up to 574 Mbps, the 5 GHz RF provides a transmission rate high up to 2402 Mbps, and the system transmission rate can reach 2.976 Mbps, thereby providing high-performance wireless access services in terms of coverage scope, access density and operation stability.

Gigabit uplink

1 10/100/1000Base-T Ethernet port can be used as the uplink port, breaking the restriction of traditional 100M transmission rate. The wired port is no longer the bottleneck of the wireless access rate.

QoS guarantee

SUNDRAY XAP-6230-E supports different QoS levels. It supports air interface resource management based on applications, SSIDs or STAs to ensure that air interfaces are appropriately allocated and that the data of important SSIDs and applications is transmitted in preference. Transmission priorities can be defined for different service data through 802.11e/WMM. This ensures differentiated QoS levels.

Seamless roaming for L2 and L3

SUNDRAY XAP-6230-E works with SUNDRAY wireless controller to implement seamless roaming for L2 and L3. When a wireless user roams, the IP address and authentication status remain unchanged. The terminal viscosity prevention function is provided to intelligently guide an STA to the optimal AP, increasing the roaming speed.

Airtime fairness

Terminal dragging prevention involves enabling terminals with different negotiated rates to occupy the identical wireless channel time by using the time fairness algorithm. This avoids problems of low wireless access speed, high delay and low network performance caused by low access rates of some terminals.

Intelligent load balancing

In the case of high-density wireless users, SUNDRAY XAP-6230-E works with SUNDRAY wireless controller to implement intelligent load balancing based on the user quantity, traffic, and frequency band for the purpose of improving the bandwidth usage, thereby ensuring high wireless access speed for users. Frequency band-based load balancing enables 2.4/5 GHz dual-frequency terminals to access the 5 GHz frequency band in preference.

Intelligent RF to reduce wireless interference in an all-round way

The work channel and transmit power of the wireless access point are adjusted automatically and interference from the surrounding environment is detected in real time to reduce radio interference in an all-round way and to improve the overall service quality of the wireless network.

All-Round Security Protection

Multiple easy-to-use and secure authentication modes

Multiple flexible, easy-to-use and secure user authentication modes are available. 802.1x, portal, SMS, WeChat, and QR code authentication modes are provided with the support of SUNDRAY wireless controller to meet network deployment requirements in environments including enterprises, schools, shopping malls, hotels, and financial organizations.

All-round wireless security protection

With the support of SUNDRAY wireless controller, XAP-6230-E provides a wide range of wireless security protection functions including WIDS/WIPS, illegitimate AP detection and workaround, ARP spoofing prevention, and DoS attack prevention, constructing a truly secure and reliable wireless network for users.

Timed turning off of RF for network security and environment protection

RF can be turned off and on based on time periods. The wireless network can be automatically turned off at nights and weekends to prevent malicious users from intruding the network and to reduce energy consumption of the equipment.

Flexible Network Deployment

Virtual AP technology

A maximum of 32 ESSIDs can be provided by using the virtual AP technology. Different SSIDs use different authentication modes and have different network access permission. The SSIDs are isolated from each other. L2 isolation can be implemented for terminals that use the same SSID on a subnet or VLAN to ensure user data security.

SSID

An SSID with a maximum of 32 characters can be specified. An SSID can also contain both Chinese and English characters. Individualized SSIDs are available for shopping malls or enterprises to improve discrimination.

3 Technical Specifications

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Hardware Specifications

Product Specifications of SUNDRAY XAP-6230-E	
Item	**Description**
Model	XAP-6230-E
Weight	0.35kg
Dimensions (excluding antenna interfaces and accessories)	170 mm x 170 mm x 41.5 mm
Ethernet port	1*10/100/1000M Ethernet port
PoE	802.3af / 802.3at power supply supported
Local power supply	12 V / 2 A
Transmit power	≤ 20 dBm
Power adjustment granularity	1 dBm
Power range	1 dBm to the value specified by national regulations
Power consumption	< 12.95 W
Antenna	Embedded intelligent antenna matrix
Reset / restore factory settings	Support
Status indicator	1 status indicator
Operating/storage temperature	0°C to + 45°C / - 40°C to + 70°C
Operating/storage humidity	10% - 90% (non-condensing)/5% - 95% (non-condensing)
Protection level	IP 41
MTBF	> 250000 H

Software Specifications

Item		Description
Model		XAP-6230-E
RF	MIMO	2*2:2
	Maximum transmission speed of a single frequency	2.4 G: 574 Mbps 5 G: 2402 Mbps
	Operating frequency band	802.11ax/ac /n/a: 5.725-5.850 GHz, 5.15-5.35 GHz (China) 802.11b/g/n/ax: 2.4-2.483GHz (China)
	Modulation technology	OFDM: BPSK@6/9Mbps, QPSK@12/18Mbps, 16-QAM@24Mbps, 64-QAM@48/54Mbps DSSS : DBPSK@1Mbps, DQPSK@2Mbps,CCK@5.5/11Mbps MIMO-OFDM : MCS 0-15 MIMO-OFDM (11ac): MCS 0-9 MIMO-OFDMA (11ax):MCS 0-11
	Channel rate	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
	Channel quantity	802.11a, 802.11n, 802.11ac,802.11ax (compatible with 802.11a): 5 channels 802.11b, 802.11g, 802.11n,802.11ax (compatible with 802.11b / g mode): 13 channels
	Manual and automatic channel adjustment	Support
	Automatic power adjustment	Support
	Manual power adjustment	The AP supports manual power adjustment with an adjustment granularity of 1 dBm. The power scope is from 1 dBm to the value specified by national regulations.
	Timed turning on or off of RF	RF can be turned on or off based on the specified time period.
	Coverage black hole detection and compensation	Support

3 Technical Specifications

Item		Description
WLAN function	Maximum number of connected users	256 (maximum number of connected users of a single RF: 128)
	Connected user quantity restriction	Support
	Virtual AP	32
	Chinese SSID	Support
	SSID hiding	Support
	User-, traffic-, and frequency band-based intelligent load balancing	Support
	Bandwidth restriction	STA-, SSID-, or AP-based rate limiting is supported.
	STA function	Abnormal STA disconnection detection, STA aging detection, and STA statistic and status query are supported.
	ACL Policy	Support
Security authentication	Authentication mode	Combined with multi-service gateway or XRT router, it supports OPEN, PSK, enterprise authentication, local account authentication, third-party Radius authentication, and third-party Portal authentication. With cloud authentication, it can also support visitor authentication (SMS, Facebook, Line, Zalo, Twitter, Instagram, Voucher authentication) and employee authentication (enterprise WeChat and Nail authentication).

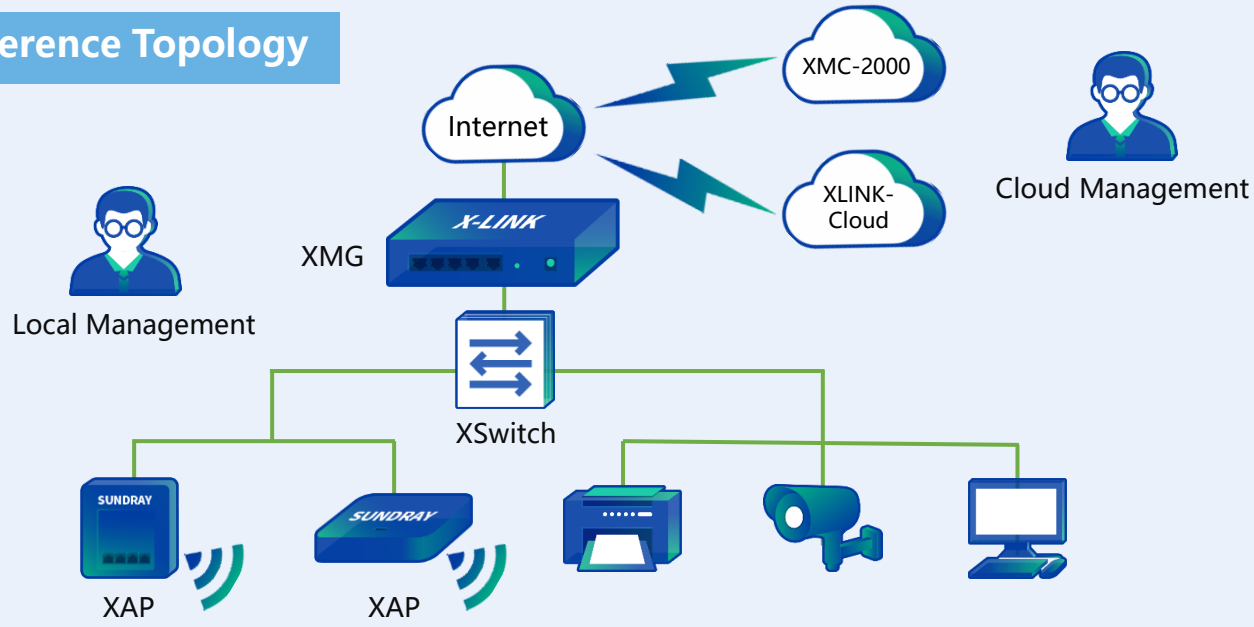
3 Technical Specifications

Item		Description
Wireless optimization	High-density access scenario optimization	Support
	Fair bandwidth	Support.
	Broadcast and multiple cast optimization	Support
AP access mode	AC discovery mechanism	L2 broadcast automatic discovery L3 discovery based on configured static IP addresses DHCP Option43 discovery DNS domain name discovery
Layer3 function	Network access mode	DHCP and static IP address

4 Order Information

Model	Specifications	Remarks
SUNDRAY XAP-6230-E series		
XAP-6230-E	Wi-Fi 6 Ceiling AP, dual frequencies of 2.4 GHz and 5 GHz,, a maximum access rate of 2976 Mbps, Gigabit uplink port, supports PoE power supply and local power supply (the PoE injector and local power adapter need to be independently purchased).	Essential

Reference Topology



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