

# Wireless Bridge

## **User Manual**

## ST508E/ST515N



V2.0

## **Be Honest & Do Best**

Your Trustworthy Smart Industrial IoT Partner

## Content

1. Introduction 3 -
1.1. Overview 3 -
1.2. Features 3 -
1.3. Specification 3 -
1.4. Output power & receive sensitivity 5 -
1.5. Dimension 5 -
2. Get Started 6 -
2.1. Hardware interface introduction 6 -
2.2. Login setting page 6 -
2.3. Initializing configuration 7 -
3. Configuration and parameter details 8 -
3.1. IP settings 8 -
3.2. Wi-Fi settings 9 -
3.2.1. Work mode & TX power 9 -
3.2.2. Channel & bandwidth 10 -
3.2.3. Wi-Fi SSID & encryption 13 -
3.2.4. Saving the changes 15 -
3.3. To check the wireless connection 15 -
4. Warranty 16 -
5. Contact Us 16 -
6. Disclaimer 16 -
7. Revision History 16 -



## 1. Introduction

#### 1.1. Overview

Our wireless bridge series is based on the Qualcomm solution, with the high output power and high sensitivity that come from the high-quality hardware and equipped with the intelligent dynamic polling protocol iPoll 3 which is based on TDMA technology.

The products have excellent anti-interference ability, even in high-density transmission scenarios with more than 64 stations, which can guarantee the stable transmission and higher throughput. Through iPoll 3, our products support the advanced wireless traffic optimization function, QoS priority supports DSCP mode under 802.1p and supports 4 priority queues, providing the most complete support for multiple services.

The product design meets IP64 to IP66 waterproof grades and industrial standards. It provides 2kv surge protection which can ensure the device work well in complex electrical environments. Our bridge products are widely used in various network communications and video surveillance scenarios such as agriculture, forestry, industry, transportation, docks, tower cranes and elevator monitoring.

#### 1.2. Features

- IP64 or IP66 waterproof supported.
- Ultra-high output power and receive sensitivity.
- Ultra-wide available spectrum(4.9Ghz~6Ghz) and more flexible bandwidth(5/10/20/40Mhz).
- Smart station polling, smart auto-channel, adaptive auto modulation, automatic transmit power control (ATPC) supported.
- Supports point-to-point and point-to-multipoint (Up to 64 points).
- The max coverage distance is up to 3KM.
- QoS (L2/L3 or DSCP/COS) supporting different priority traffic types.
- Professional and responsive HTML 5 graphical user interface.
- Built-in rich and practical toolset (Site survey, Spectrum analyzer, Link test, Antenna alignment, Ping Traceroute).
- Supports client isolation.
- Supports bridge, routing and repeater mode.
- Supports IPv6, scheduled reboot.

## 1.3. Specification

Model	ST508E	ST515N			
	Compact size 5Ghz wireless				
Description	bridge	High performance 5Ghz wireless bridge			
Input voltage	12 - 24 VDC passive PoE				



Power adapter	100 – 240 VAC				
Max power consumption	4.5W				
Wi-Fi					
Protocol	802.11a/n, iPoll 3				
Output Power	Up to 29 dB	m (country dependent)			
Receive sensitivity	Varying between -97 and	d -75 dBm (modulation dependent)			
Frequency	4.9Ghz ~ 6G	hz (country dependent)			
Channel bandwidth	5/	10/20/40Mhz			
MIMO		2*2			
Modulation schemes	802.11 a/n: OFDM (	64-QAM, 16-QAM, QPSK, BPSK)			
Max rate		300Mbps			
Error correction	FEC	, Selective ARQ			
Antenna	Built-in, 8dBi	Built-in, 15dBi			
Coverage Distance					
Point to point	Recommended: 1KM Recommended: 3KM				
	Max: 2KM	Max: 5KM			
Point to multiple	Recommended: 0.5KM	Recommended: 1KM			
points(same model)	Max: 1KM	Max: 3KM			
Ethernet					
Ethernet	1*RJ45	5, 10/100M(PoE in)			
Software					
Wireless operating modes	Access point (auto WDS), access point (iPoll 3), station (WDS, iPoll 3), station (ARP NAT)				
Wireless techniques	Smart station polling, smart auto-c transmit pov	channel, adaptive auto modulation, automatic wer control (ATPC)			
Wireless security	WPA/WPA2 personal, WPA/	WPA2 enterprise, WACL, user isolation			
Wireless SoS	4 queues p	prioritization on iPoll 3			
Network operating modes	Bridge, ro	uter IPv4, router IPv6			
Network techniques	Routing with	Routing with and without NAT, VLAN			
WAN protocols	Static IP, DHCP client, PPPoE client				
	Static IP, DF	HCP client, PPPoE client			
Service	Static IP, DF DHCP server, SNMP, NTP client, ro	HCP client, PPPoE client outer advertisement daemon, ping watchdog			
Service Management	Static IP, DF DHCP server, SNMP, NTP client, ro HTTP(S) GUI,	HCP client, PPPoE client outer advertisement daemon, ping watchdog SSH, SNMP read, Telnet			
Service Management System monitoring	Static IP, DF DHCP server, SNMP, NTP client, ro HTTP(S) GUI, SNMP v1/2c/3 server, Syslogs	HCP client, PPPoE client outer advertisement daemon, ping watchdog SSH, SNMP read, Telnet s, system alerts via e-mail and SNMP trap			
Service Management System monitoring Wireless tools	Static IP, DF DHCP server, SNMP, NTP client, ro HTTP(S) GUI, SNMP v1/2c/3 server, Syslogs Site survey, lin	HCP client, PPPoE client outer advertisement daemon, ping watchdog SSH, SNMP read, Telnet s, system alerts via e-mail and SNMP trap k test, antenna alignment			
Service Management System monitoring Wireless tools Other	Static IP, DF DHCP server, SNMP, NTP client, ro HTTP(S) GUI, SNMP v1/2c/3 server, Syslogs Site survey, lin Sch	HCP client, PPPoE client outer advertisement daemon, ping watchdog SSH, SNMP read, Telnet s, system alerts via e-mail and SNMP trap k test, antenna alignment neduled reboot			
Service Management System monitoring Wireless tools Other Physical Parameters	Static IP, DF DHCP server, SNMP, NTP client, ro HTTP(S) GUI, SNMP v1/2c/3 server, Syslogs Site survey, lin Sch	HCP client, PPPoE client outer advertisement daemon, ping watchdog SSH, SNMP read, Telnet 5, system alerts via e-mail and SNMP trap k test, antenna alignment neduled reboot			
Service Management System monitoring Wireless tools Other Physical Parameters Dimension	Static IP, DF DHCP server, SNMP, NTP client, ro HTTP(S) GUI, SNMP v1/2c/3 server, Syslogs Site survey, lin Sch 141*77.5*53mm(L*W*H)	HCP client, PPPoE client outer advertisement daemon, ping watchdog SSH, SNMP read, Telnet s, system alerts via e-mail and SNMP trap k test, antenna alignment neduled reboot 158*97*38mm(L*W*H)			
Service Management System monitoring Wireless tools Other Physical Parameters Dimension Weight	Static IP, DF DHCP server, SNMP, NTP client, ro HTTP(S) GUI, SNMP v1/2c/3 server, Syslogs Site survey, lin Sch 141*77.5*53mm(L*W*H) 300g	HCP client, PPPoE client puter advertisement daemon, ping watchdog SSH, SNMP read, Telnet s, system alerts via e-mail and SNMP trap k test, antenna alignment neduled reboot 158*97*38mm(L*W*H) 165g			
Service Management System monitoring Wireless tools Other Physical Parameters Dimension Weight Installation	Static IP, DH DHCP server, SNMP, NTP client, ro HTTP(S) GUI, SNMP v1/2c/3 server, Syslogs Site survey, lin Sch 141*77.5*53mm(L*W*H) 300g Pole Mounting, wall mounting	HCP client, PPPoE client puter advertisement daemon, ping watchdog SSH, SNMP read, Telnet s, system alerts via e-mail and SNMP trap k test, antenna alignment neduled reboot 158*97*38mm(L*W*H) 165g Pole Mounting			
Service Management System monitoring Wireless tools Other Physical Parameters Dimension Weight Installation Operating Temperature	Static IP, DH DHCP server, SNMP, NTP client, ro HTTP(S) GUI, SNMP v1/2c/3 server, Syslogs Site survey, lin Sch 141*77.5*53mm(L*W*H) 300g Pole Mounting, wall mounting	HCP client, PPPoE client puter advertisement daemon, ping watchdog SSH, SNMP read, Telnet s, system alerts via e-mail and SNMP trap k test, antenna alignment neduled reboot 158*97*38mm(L*W*H) 165g Pole Mounting 40°C ~ +70°C			



## **1.4. Output power & receive sensitivity**

		15 Mbps	30 Mbps	45 Mbps	60 Mbps	90 Mbps	120 Mbps	135 Mbps	150 Mbps
tivit	802.11N/	-97	-95	-93	-88	-85	- <mark>81</mark>	-79	-77
iensi	MHz)	30 Mbps	60 Mbps	90 Mbps	120 Mbps	180 Mbps	240 Mbps	270 Mbps	300 Mbps
ive s (dE		-94	-92	-89	-85	-82	-78	-77	-75
Rece	002 11-	6 Mbps	9 Mbps	12 Mbps	18 Mbps	24 Mbps	36 Mbps	48 Mbps	54 Mbps
	602.11a	-97	-97	-95	-93	-90	-86	-82	-81
		15 Mbps	30 Mbps	45 Mbps	60 Mbps	90 Mbps	120 Mbps	135 Mbps	150 Mbps
ver ined	802.11N/	29	28	28	28	27	27	25	24
pow mbii	iPoll (20/ 40 MHz)								
0	MHz)	30 Mbps	60 Mbps	90 Mbps	120 Mbps	180 Mbps	240 Mbps	270 Mbps	300 Mbps
itput n - co	MHz)	30 Mbps 28	60 Mbps 28	90 Mbps 28	120 Mbps 28	180 Mbps 26	240 Mbps 26	270 Mbps 24	300 Mbps 23
Output (dBm - co	MHz)	30 Mbps 28 6 Mbps	60 Mbps 28 9 Mbps	90 Mbps 28 12 Mbps	120 Mbps 28 18 Mbps	180 Mbps 26 24 Mbps	240 Mbps 26 36 Mbps	270 Mbps 24 48 Mbps	300 Mbps 23 54 Mbps

## 1.5. Dimension

Unit: mm



Figure 1. Dimension of ST508E





Figure 2. Dimension of ST515N

## 2. Get Started

#### 2.1. Hardware interface introduction

Refer to the following figure to connect the wireless bridge to the computer through a PoE adapter and an Ethernet cable.



Figure 3. Hardware connection

## 2.2. Login setting page

Connect PC to the LAN port of the AP controller, and set the PC IP to static IP 192.168.2.xxx, such as 192.168.2.101. The IP should be on the same network segment as the wireless bridge.

Enter the default IP address of the wireless bridge 192.168.2.66 in the browser, and the browser will navigate to login page. The username is admin, the password is admin01.





Figure 4. Login page

#### 2.3. Initializing configuration

When you log in to the device for the first time, you need to read and agree to the user agreement. As different countries may have different requirements for equivalent omnidirectional power and equipment working channels, users can choose a country based on the actual situation and strictly abide by local laws and regulations when using the product.

If you need to open all the power and channels of the devices, please select the country as "Compliance testing", which is the test mode. In this mode, you can adjust the transmit power of the device to the maximum and enable all channels. The country code can also be changed on the configuration page after completing the initial configuration.



APCPE QM-	5 v7 65 230911 (Update) Simple mo	ode 🗘					Log
		OPERA	TING COUNTRY			CPU los	ad (16 %)
	i	User agre	ement			Se Se	arching
		The correct requirement and Autom	t country code must be sele its for authorized channels, atic Transmit Power Control	cted before using the equipr channel width, output power (ATPC).	nent to meet the regulatory Dynamic Frequency Selection (DI	FS)	
i	INFORMATION	Installer or rules.	equipment owner takes all r	responsibility for proper prod	uct usage according to the regulation	Dry	ť
Le .	Product name:	STE Vendor or	distributor/reseller is not res	ponsible for illegal wireless e	quipment operation.		
	Device serial No.: Network mode:	066 Bric		I have read and	agree	r:	
=	Wireless mode:	Sta	Operating cou	untry: Compliance testin	ı ~		
	Radio		5 GHz Antenna gain	, dBi: 8			
	Channel: Channel width, MHz					Poll 3	
	Tx power, dBm: Noise floor, dBm:	10			Change Car	ncel	
	Wireless Station (WDS/IPr	11 2/Poll 3)					
	Network SSID	Security	Peer MAC	Tx/Rx rate, Mbps	TX/RX CCQ, %	Protocol	Link uptime
	APCPE	Open					
	Network						
	IP method: IP address:	Static 192.168.2.66			IPv6 method: Disabl	led	

Figure 5. Initializing configuration

## 3. Configuration and parameter details

## 3.1. IP settings

This wireless bridge supports both static IP and DHCP client. The factory default is a static IP.

In static IP mode, please ensure the uniqueness of the IP address to avoid IP conflicts with other devices on the network.

In DHCP mode, the wireless bridge is assigned an IP address by the DHCP Server device

		; 8	2	Uptime 7 min. 58 sec.	CPU load (0 %)
				Ethernet?	00BaseT/Full 🗇 Searching
(1	NETWORK CONFIG	GURATION			
ភំ	N	etwork mode: Bridge	*	Management	VLAN ID: 2
=		Enable IPv6:			
¢°	Ethernet settings	Enable STP:			
				Duplay	Autonegotiation
	Interface	Mode	Speed, Mbps	Dublex	
a tot	Interface Ethernet1	Mode Auto	Speed, Mbps 10/100	Full	Enabled
848 8	Interface Ethernet1 Ethernet2	Mode Auto Auto	Speed, Mbps 10/100 10/100	Full	Enabled
din	Interface Ethernet1 Ethernet2 IPv4 configuration	Mode Auto Auto	Speed, Mbps 10/100 10/100	Full Full	Enabled Enabled
848 844	Interface Ethemet1 Ethemet2 IPv4 configuration	Mode Auto Auto IP method: Static	Speed, Mbps 10/100 10/100	Full Full Full	Enabled Enabled
	Interface Ethemet1 Ethemet2 IPv4 configuration	Mode Auto Auto IP method: Static IP address: 192.188.2	Speed, Mbps 10/100 10/100	Fut Fut Fut DN1	Enabled Enabled
樹	Interface Ethemet1 Ethemet2 IPv4 configuration	Mode Auto Auto IP method: Static IP address: 192.188.2 Subnet mask: 255.255.2	Speed, Mops 10/100 10/100	Pul Pul DN: DN: Sec	Enabled Enabled



		i	* •	Uptime 8 min. 43 sec.	00BaseT/Full Xisconnected	CPU load (15 %)
([t-	NETWORK CONF	IGURATION				
m ≓		Network mode: Bridge Enable IPv6: Enable STP:	×	Management	VLAN ID: 2	
40	Ethernet settings					
101	Interface	Mode	Speed, Mbps	Duplex	Autonegotiation	
	Ethernet1	Auto	10/100	Full	Enabled	
	IPv4 configuration	Auto	10/100	Full	Enabled	
		IP method: Dynamic DHCP lease: Rene	~	Seco	ondary IP:	
	DH	ICP IP fallback:				
		IP address: 192.168.2.6 Subnet mask: 255.255.255	5.0			
	De	efault gateway: 192.168.2.1				

Figure 6. Static IP

Figure 7. DHCP client

## 3.2. Wi-Fi settings

The Wi-Fi settings include Work Mode, TX power, SSID and Wi-Fi encryption.

#### 3.2.1. Work mode & TX power

Work mode: The wireless bridge can work at Access Point or remote station mode.

TX power: The stronger the TX power, the stronger the signal, and the longer the transmission distance. You can adjust the TX power based on the needed transmission distance.

Access point mode: For point-to-point pairing, the ipoll2 is recommended, while ipoll3 is recommended for point to multiple point pairing.



	$(\cdot)$			Uptime 17 min. 50 sec.	CPU load (3 %)	
		$\mathbf{v}$		Ethermett: 100BaseT/Full	Searching	
((ı.	WIRELESS CONFIGURATION	I				
ಹೆ	Enable radio	-		Operating country: CT		
<b></b>	Operating mode	Access Point (iPoll 2)	~			
Q0	Tx power, dBm		10	Channel: Auto	/ 40 MHz	
101	Enable ATPC			<u> </u>		
	Advanced radio settings					
	Network SSID	Security	Management	Broadcast SSID	VLAN	
	APCPE	Open	Enabled	Yes	(m)	٥

Figure 8. Access point mode

	i		Uptime 18 min. 55 sec. Ethernel1: 100Base1	CPU los T/Full Treat Sector	sd (6 %) arching
(	WIRELESS CONFIGURATIO	N			
ភឹង	Enable radi	o: 🗸 🚺	Operating count	ry: CT	
#	Operating mod	e: Station (WDS/iPoll 2/iPoll 3)	~		
Q <sub>0</sub>	Tx power, dBr	n. [] 10	Channel width, MI	Hz: 20/40 ~	
969	Enable ATP		Smart channel wid	th:	
	Advanced radio settings		Non-standard channe	lis: 🔢 🗯	
	Network SSID	Security	Management	VLAN	
	APCPE	Open	Enabled		0

> Remote station mode: Set the remote station TX power according to the actual transmission distance.

Figure 9. Remote station mode

#### 3.2.2. Channel & bandwidth

> Access point mode: The default working channel is "Auto".

When the device starts up, it will automatically scan the wireless signals in the environment and automatically select a channel that it thinks is relatively clean. Our 5Ghz equipment has rich spectrum resources (4.9Ghz~6.0Ghz), but in an environment with many wireless devices, it is still recommended to plan and use different fixed channels for multiple devices to avoid interference.

Users can use the device's built-in "Wireless Environment Survey" and "Spectrum Analysis" tools to analyze the wireless channel occupancy in the environment to provide a reference for channel



planning.

The default bandwidth is 40Mhz. On the premise that the bandwidth can meet the transmission rate, it is recommended to reduce the bandwidth to 20Mhz. Lower bandwidth means better signal, stronger anti-interference capability and more non-overlapping available channels.

(lı	WIRELESS CONFIGURATION				
ភង	Enable radio:	- 0		Operating country: C	r
=	Operating mode:	Access Point (iPoll 2)	~		
	Radio settings				
¢ĉ	Tx power, dBm:		10	Channel: A	uto / 40 MHz
~					
01	Enable ATPC:				
	Advanced radio settings				
	Network \$\$ID	Security	Management	Broadcast \$\$ID	VLAN
	APCPE	Open	Enabled	Yes	- ¢

Figure 10. Auto channel

	WIRELESS CONFIGURATION				
8	Enable radio:	~		Operating country:	СТ
⇒	Operating mode:	Access Point (iPoll 2)	~		
	Radio settings				
¢\$	Tx power, dBm:		10	Channel:	100 (5500 MHz) / 40 MHz
ļţ	Enable ATPC:	×			
	Advanced radio settings				
	Network SSID	Security	Management	Broadcast SSID	VLAN
	APCPE	Open	Enabled	Yes	

Figure 11. Fixed channel

		CHA	ANNEL SELECT	ION			CPU load (6 %)
	i		Cha	nnel width, MH:	40 ~		Searching
((t-	WIRELESS CONFIGURATIO		Hide	indoor channel : andard channels:	5 10 20 40	-	
523	Enable rad	By se	lecting more than one o	channel autochannel fe	ature is enabled automatic	ally.	6
		⊡	Channel	TX limit, dBm	EIRP limit, dBm	DFS/ATPC required	<u>^</u>
=	Operating mot		36 (5180 MHz)	29	100	No	
	Radio settings		44 (5220 MHz)	29	100	No	
¢¢			52 (5260 MHz)	29	100	No	
	Tx power, dB		60 (5300 MHz)	29	100	No	(5500 MHz) / 40 MHz
	Enable ATF		100 (5500 MHz)	29	100	No	
	Advanced radio settings		108 (5540 MHz)	29	100	No	
			116 (5580 MHz)	29	100	No	
	Network SSID		124 (5620 MHz)	29	100	No	VLAN
	APCPE		132 (5660 MHz)	29	100	No	- 0

Figure 12. Channel selecting



		i 🔷	*		Uptime 23 min. 46 sec. Ethernet1: 100Base	T/Full ected	CPU load (4 %)	
٩	SITE SURVEY							
٢	Nete: starting site sur	vey scan may temporary disable Channel width: Configure	e wireless link(s). ed only		Non-standard chann	els: IX		
(h	Start scan			Enter key	word to filter results			
665	AP count: 18	≑ SSID	≑ Security	≑ Signal, dBm	Noise floor, dBm	Protocol	Channel	Channel width
	D4:AD:20:6A:11:3C	core-1139-5G	WPA2 Personal	-55	-116	802.11a/n	36 (5180 MHz)	40+
H-	D4:AD:20:FF:34:A8	NR530X-34A5-5G1	WPA2 Personal	-60	-116	802.11a/n	36 (5180 MHz)	40+
	1C:40:E8:15:2C:0E	AP310i-2C0B-5G	WPA2 Personal	-71	-116	802.11a/n	40 (5200 MHz)	40-
	68:77:24:CC:62:8F	713-5G	WPA/WPA2 Personal	-83	-116	802.11a/n	44 (5220 MHz)	40+
	3A:CA:84:00:24:5E	DIRECT-5E-HP Smart Tank 6	50-670 WPA2 Personal	-93	-116	802.11a/n	44 (5220 MHz)	20
	7E:77:24:CC:62:8F	-	WPA/WPA2 Personal	-83	-116	802.11a/n	44 (5220 MHz)	40+
	DC:D8:7C:56:01:9E	JDCwifi_019A_Gaming	WPA/WPA2 Personal	-66	-116	802.11a/n	48 (5240 MHz)	40-
	D4:AD:20:FF:34:A9	NR530X-34A5-5G2	WPA2 Personal	-73	-116	802.11a/n	52 (5260 MHz)	40+
	D4:AD:20:FF:32:03	-	WPA2 Personal	-80	-116	802.11a/n	52 (5260 MHz)	40+
	D4:AD:20:FF:34:13	U300-3410-5G	WPA2 Personal	-67	-116	802.11a/n	56 (5280 MHz)	40-
	D4:AD:20:FF:32:4F	iiq-5	WPA2 Personal	-68	-116	802.11a/n	56 (5280 MHz)	40-
	D4:AD:20:69:5F:6E	USR-5F6B-5G	WPA2 Personal	-62	-116	802.11a/n	60 (5300 MHz)	40+
	EC:60:73:2B:4C:30	sw-server	WPA/WPA2 Personal	-68	-116	802.11a/n	60 (5300 MHz)	40+
	D4:AD:20:FF:30:6F	UST-SZ	WPA2 Personal	-64	-116	802.11a/n	60 (5300 MHz)	40+
	F2:60:73:2B:4C:30		WPA/WPA2 Personal	-68	-116	802.11a/n	60 (5300 MHz)	40+
	D4:AD:20:5A:EA:6F	USR-EA6C-5G	WPA2 Personal	-68	-116	802.11a/n	64 (5320 MHz)	40-
	00:19:3B:94:14:AC	APCPE_TEST5G_TH	WPA2 Personal	-64	-116	iPoll 2	100 (5500 MHz)	40+
	DC:D8:7C:56:01:9D	JDCwifi_019A	WPA/WPA2 Personal	-73	-116	802.11a/n	157 (5785 MHz)	40+

Figure 13. Site Survey



Figure 14. Spectrum Analyzer

Remote station mode: In this mode, the wireless bridge will automatically adapt to the working channel and bandwidth of the master device. Generally, there is no need to set the bandwidth separately, just leave it as the default configuration.



(î:	WIRELESS CONFIGURATION				
ሕ	Enable radio:	<b>~</b> [1]	Operating cour	ntry: CT	
₽	Operating mode:	Station (WDS/iPoll 2/iPoll 3)			
قىد	Radio settings				
96	Tx power, dBm:	10	Channel width, N	<b>IHz:</b> 20/40 ✓	
	Enable ATPC:		Smart channel wi	dth:	
			Non-standard chann	els: 🔲 🛪	
	Advanced radio settings			×	
	Network SSID	Security	Management	VLAN	
	APCPE	Open	Enabled		٥

Figure 15. Channel Width

#### 3.2.3. Wi-Fi SSID & encryption

The wireless bridge can work at Access Point or remote station mode. When used in pairing, the access point and site need to ensure that the wireless SSID and wireless security settings are consistent to establish a connection and realize wireless data transmission.

Access point mode: Transmit wireless signals for site devices to connect. Please set the SSID and wireless security configuration according to actual needs so that the site and the access point can establish a connection. When setting the SSID, make sure the SSID name is unique so that the remote device can identify to avoid confusion and misconnection; wireless security refers to the wireless encryption method. It is recommended to enable encryption to better ensure data security. Please select the encryption method as "WPA2 Personal" and enter Password. After enabling wireless security, the site device can only establish a connection with the device by entering the same password as the local device.

		WIRELESS AP SETT	INGS				
		[	SSID: APCPE		Broadcast SSID:		
_		Security settings					
((:	WIREL	Sec	urity: WPA2 Personal	*			
ភា		Passph	rase: 88888888				
=		Bandwidth limitation					
	Radio s	⊕ WACL					
00		Advanced settings					
	🗉 Adva				<b>`</b> [	Done Cancel	
	Network	SSID	Security	Management	Broadcast SSID	VLAN	
	APCPE		WPA2 Personal	Enabled	Yes		٥



#### Figure 16. Wireless AP Settings

Remote station mode: You need to set your own SSID and wireless security configuration according to the access point to ensure that a connection is established with the access point. When setting the SSID, you can manually enter the SSID name. If the access point has been configured and is powered on and running normally, you can also scan the SSID sent by the access point and select it from the discovery list; wireless security refers to wireless encryption method, please select the encryption method correctly and enter the password consistent with the access point.

		WIRELESS STATION SE	ETTINGS					
		Primary SSID Failover	SSID					
((r	WIREL	s	SID: APCPE	٩	Lock AP by MAC address:	00:00:00:00:00		
		Security settings						
<del>đa</del>		Securi	ity: WPA/WPA2 Personal	×				
11	Dedica	Passphra	se: 88888888					
¢°,	Radio s	Bandwidth limitation						
						S		
	🖲 Adva					Done	Cancel	
	Network	SSID	Security		Managem	ent	VLAN	
	APCPE		WPA/WPA2 Personal		Enabled		19 <del>4</del> 2	٥

Figure 17. Enter the SSID and password

		SEARCH SSID						0
		Enter keyword to filter res	ults					
		NR530X-34A5-5G2	D4:AD:20:FF:34:A9	WPA2 Personal	-75	802.11a/n	5260 MHz	•
((:	WIREL		D4:AD:20:FF:32:03	WPA2 Personal	-80 🚥	802.11a/n	5260 MHz	
		U300-3410-5G	D4:AD:20:FF:34:13	WPA2 Personal	-72	802.11a/n	5280 MHz	
ភិ		iiq-5	D4:AD:20:FF:32:4F	WPA2 Personal	-72	802.11a/n	5280 MHz	
		UST-SZ	D4:AD:20:FF:30:6F	WPA2 Personal	-66	802.11a/n	5300 MHz	
₽		USR-5F6B-5G	D4:AD:20:69:5F:6E	WPA2 Personal	-63	802.11a/n	5300 MHz	
	Radio s	sw-server	EC:60:73:2B:4C:30	WPA/WPA2 Personal	-72	802.11a/n	5300 MHz	
¢\$			F2:60:73:2B:4C:30	WPA/WPA2 Personal	-72	802.11a/n	5300 MHz	
		USR-EA6C-5G	D4:AD:20:5A:EA:6F	WPA2 Personal	-71	802.11a/n	5320 MHz	
âţê		APCPE	D4:AD:20:87:60:3D	WPA2 Personal	-74	iPoll 2	5500 MHz	
		JDCwifi_019A	DC:D8:7C:56:01:9D	WPA/WPA2 Personal	-71	802.11a/n	5785 MHz	
	E Adva	Last updated: 2024/1/31 16:4	14:40					Ŧ
	Adva							
	Network						Select	Cancel

Figure 18. Auto scan



#### 3.2.4. Saving the changes

After modifying the configuration, click the "Save Changes" button in the upper right corner. All configurations will take effect after saving.

APCPE.QM-5.v7.65.230911 (Update)	Simple mode •		Save changes -
		Uptime 40 min. 28 sec.	CPU load (14 %)
		Ethernet1: 100BaseT/Full	🛜 Searching

Figure 19. Saving changes

#### 3.3. To check the wireless connection

If the connection is successfully established, the user can view relevant connection information on the status page, such as signal strength, speed, connection duration, etc.

		* 3		Uptime 9 min. 20 sec.		CPU load (81 %)		
	A Contraction			Ethern	et1: Disconnected et2: Disconnected	🗢 1 stations		
i	WIRELESS NETWORKS				/			0
<u>[w</u>	Enter keyword to filter results					Info	Counters	Other
@ .	SSID: APCPE							
	Total stations/limit: 1 / 128							
:=	- + Station	IP address	Local Signal, dBm	Remote Signal, dBm	🕸 SNR, dB	Tx/Rx rate, Mbps	Cink uptime	2
	D4:AD:20:79:04:5A ST508E	192 168 2 66	-42 / -40	-50 / -57	71/73	270/270	1 min. 28 sec.	T

Figure 20. Wireless connection

				Up 42	time min. 57 sec.	CPU load	(44 %)	
					Ethernet1: 100BaseT/Full Ethernet2: Disconnected	<del>;</del> -51/-5	58 dBm	
onfigura	ation saved							
i	INFORMATION							0
M	Prod Device :	uct name: ST508E serial No.: 0666623102500	004	Ope Friendl	rating country: CT y device name: ST508E			
=	Network mode: Bridge Wireless mode: Station (WDS//Poll 2//Poll 3)		oli 2/iPoli 3)	Device location: Device location Latitude/Longitude: 0 / 0				
	Radio							
	Channel w Tx po Noise fi	Channel: 100 (5500 MHz) idth, MHz: 40 Upper wer, dBm: 10 oor, dBm: -105		Ant	Protocol: 802.11a/n/iP Radio mode: MIMO 2x2 enna gain, dBi: 8	'oll 3		
	Wireless Station (	WDS/iPoll 2/iPoll 3)						
	Network SSID	Security	Peer MAC	Tx/Rx rate, Mbps	Tx/Rx CCQ, %	Protocol	Link uptime	
	APCPE	WPA2 Personal	D4:AD:20:87:60:3D	270/270	100 / 100	iPoll 2	0 min. 31 sec.	
	Network							
	li IF Sub Default	Pmethod: Static address: 192.168.2.66 net mask: 255.255.05 gateway: 192.168.2.1			IPv6 method: Disabled			

Figure 21. Connection information



## 4. Warranty

## 5. Contact Us

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## 7. Revision History

Version	Date	Author	Description
V1.0.0	2023-11-17		Established



V1.0.1	2024-01-27	May Liu	Translation







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