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Communication Expert
of Industrial IOT

Outdoor Wireless Bridge

ST508E/ST515N



Introduction

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.

LRI Distribuída no Brasil pela LRI | vendas@lri.com.br | 51 2129-3000

Product 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.
- Supports IPv6, scheduled reboot.

Dimensions

Unit: mm

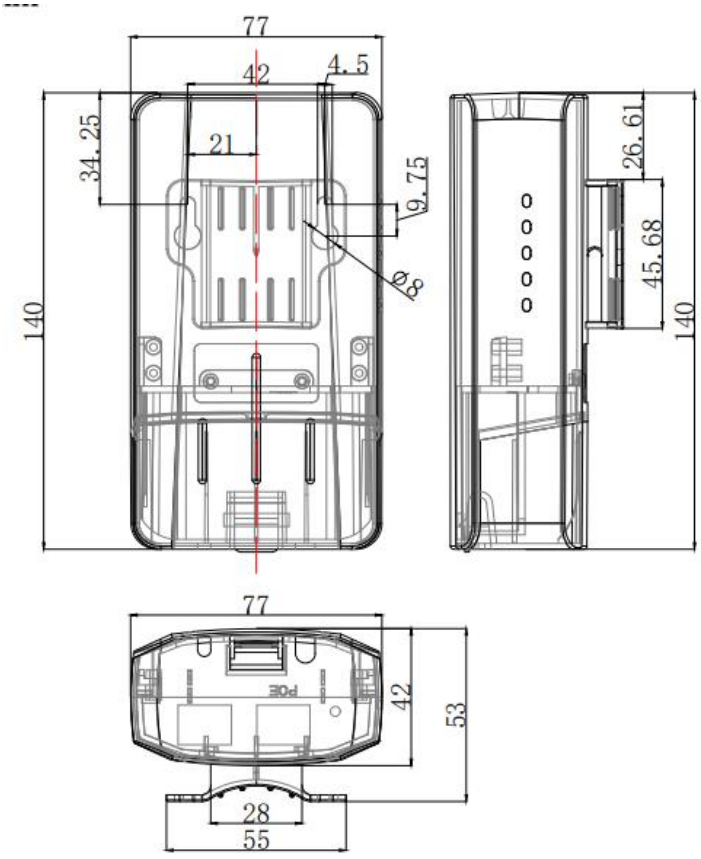


Fig.1 Dimension of ST508E

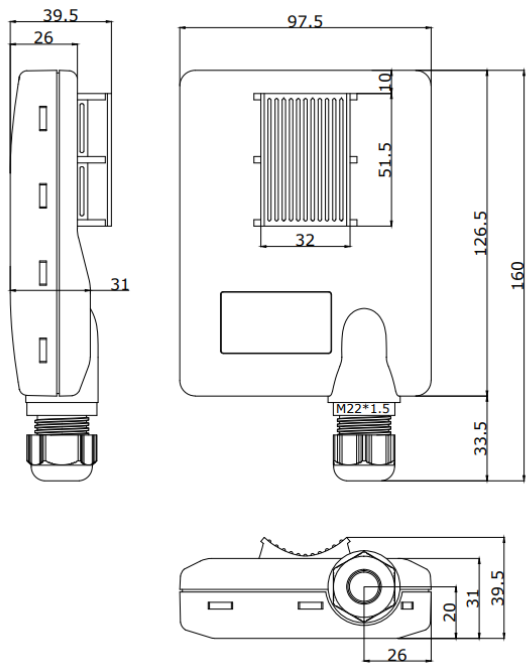


Fig.2 Dimension of ST515N

Specifications

Model	ST508E	ST515N
Description	Compact size 5Ghz wireless 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 dBm (country dependent)	
Receive sensitivity	Varying between -97 and -75 dBm (modulation dependent)	
Frequency	4.9Ghz ~ 6Ghz (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 Max: 2KM	Recommended: 3KM Max: 5KM
Point to multiple points(same model)	Recommended: 0.5KM Max: 1KM	Recommended: 1KM Max: 3KM
Ethernet		
Ethernet	1*RJ45, 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-channel, adaptive auto modulation, automatic transmit power control (ATPC)	
Wireless security	WPA/WPA2 personal, WPA/WPA2 enterprise, WACL, user isolation	
Wireless SoS	4 queues prioritization on iPoll 3	
Network operating modes	Bridge, router IPv4, router IPv6	
Network techniques	Routing with and without NAT, VLAN	
WAN protocols	Static IP, DHCP client, PPPoE client	
Service	DHCP server, SNMP, NTP client, router advertisement daemon, ping watchdog	
Management	HTTP(S) GUI, SSH, SNMP read, Telnet	
System monitoring	SNMP v1/2c/3 server, Syslogs, system alerts via e-mail and SNMP trap	
Wireless tools	Site survey, link test, antenna alignment	
Other	Scheduled reboot	
Physical Parameters		
Dimension	141*77.5*53mm(L*W*H)	158*97*38mm(L*W*H)
Weight	300g	165g
Installation	Pole Mounting, wall mounting	Pole Mounting
Operating Temperature	-40°C ~ +70°C	
Operating Humidity	0 ~ 90 %(non-condensing)	

Output power & receive sensitivity

Receive sensitivity (dBm)	802.11N/ iPoll (20/ 40 MHz)	15 Mbps	30 Mbps	45 Mbps	60 Mbps	90 Mbps	120 Mbps	135 Mbps	150 Mbps
		-97	-95	-93	-88	-85	-81	-79	-77
		30 Mbps	60 Mbps	90 Mbps	120 Mbps	180 Mbps	240 Mbps	270 Mbps	300 Mbps
		-94	-92	-89	-85	-82	-78	-77	-75
	802.11a	6 Mbps	9 Mbps	12 Mbps	18 Mbps	24 Mbps	36 Mbps	48 Mbps	54 Mbps
		-97	-97	-95	-93	-90	-86	-82	-81
Output power (dBm - combined)	802.11N/ iPoll (20/ 40 MHz)	15 Mbps	30 Mbps	45 Mbps	60 Mbps	90 Mbps	120 Mbps	135 Mbps	150 Mbps
		29	28	28	28	27	27	25	24
		30 Mbps	60 Mbps	90 Mbps	120 Mbps	180 Mbps	240 Mbps	270 Mbps	300 Mbps
		28	28	28	28	26	26	24	23
	802.11a	6 Mbps	9 Mbps	12 Mbps	18 Mbps	24 Mbps	36 Mbps	48 Mbps	54 Mbps
		29	29	29	29	29	27	26	25

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