Point to Point / Multi-Point 3km IP Bridge

W3500S

User Manual

Please read these instructions carefully before operating the unit and keep for further reference.

genie

Contents

Please read this instruction carefully before operating the product and keep it for further reference. All examples and pictures used here are for reference only.
The contents of this manual are subject to change without notice.

The Genie W3500S is a 5G wireless outdoor CPE with the next generation 802.11a/n Wi-Fi standard. Up to 300Mbps high speed data transmission and equipped with two 10/100m LAN ports, the W3500S achieves data transmission over the air for point-to-point and point to multi-point connections up to 3km transmission distance. The W3500S is designed to be simple to install and extremely reliable to use.

1.1 Product Features

- Complies with IEEE 802.11a/n, 5G,300Mbps Data Rate
- 2x 10/100m LAN Port
- 500mW high power, built-in 14dBi MIMO panel antenna, stronger signal strength, more wireless coverage
- Support passive PoE
- Built-in firewall, IP filtering, URL filtering and MAC filtering
- Complies with IEEE 802.3az standard, beamforming technology, RF power adjustment and frequency analyser for better application in varying environments
- Supports DDNS, VPN pass through, Port forwarding and DMZ host
- Supports 64/128-bit WEP security, 128bit WPA (TKIP/AES) security
- RED compliant
- Point to point
- Point to multi-point

1.2 Package Contents

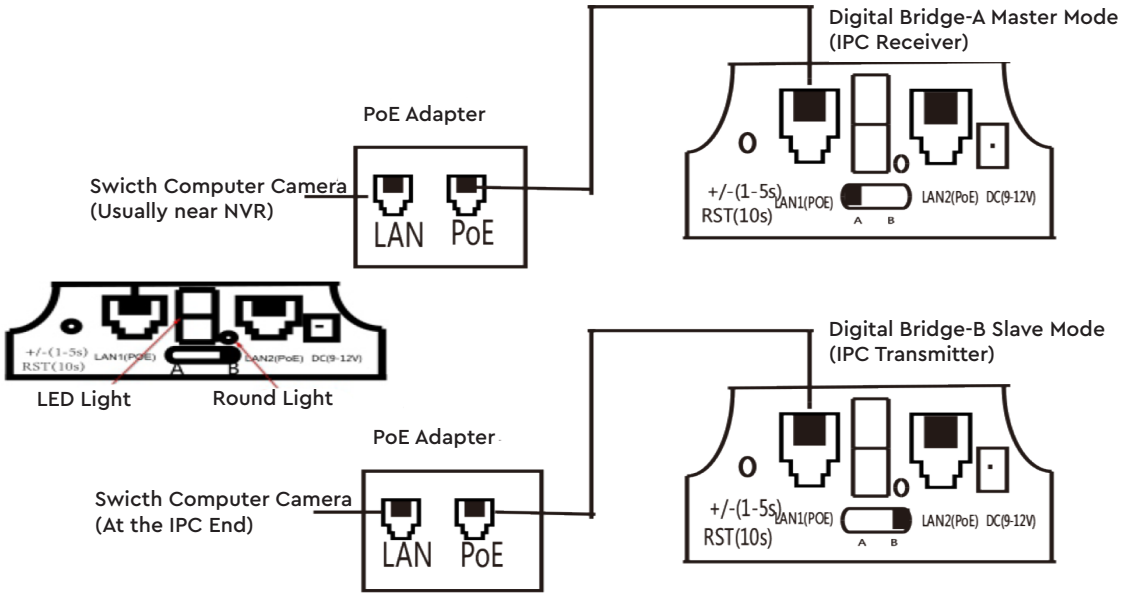
- 1x outdoor CPE
- 1x 24V PoE power supply
- 1x jubilee clip
- 1x user manual

1.3 Specification

Functions	Chipset	AR9344
	Dram	DDR2 64MB
	Flash	8MB
	Interface	10/100Mbps LAN x2
	Data Rate	11a:54M,48M,36M,24M,18M,12M,9M,6Mbps 11n:7.2M,14.4M,21.7M,28.9M,43.3M,57.8M,65M,72.2M,14.4M, 28.9M,43.3M,57.8M,86.7M,115.6M,130M,144.4Mbps 433Mbps
	Transmission Mode	DSSS
	Modulation Mode	OFDM/BPSK/QPSK/CCK/DQPSK/DBPSK
	Wireless Standard	IEEE802.11a, IEEE802.11n ,IEEE802.3u
	Protocol	CSMA/CA,TCP/IP,IPX SPX, NetBEUI, DHCP, NDIS3, NDIS4, NDIS5
	Frequency	4900~6100MHz
Others	Power Consumption	≤3W
	Power	PoE 24V 1A (Default), PoE 48V 0.5A (Optional)
	Sensitivity	802.11a: 6Mbps ≤ -89, 54Mbps ≤ -68 802.11n: HT20 – MCS 0 ≤ -86; MCS 7 ≤ -68 HT40 – MCS 0 ≤ -83; MCS 7 ≤ -65
	Antenna	Frequency: 5180~5825MHz Polarisation Direction: Vertical DB: 14 dBi
	RF @25°C ±2dB	802.11a: 6–24Mbps: 19±2dBm 36- 48Mbps: 19±2dBm 54Mbps: 19±2dBm 802.11n: HT20 – / HT40 – MCS 0–3: 17±2dBm / MCS 0–3: 16±2dBm MCS 4: 17±2dBm / MCS 4: 16±2dBm MCS 5: 17±2dBm / MCS 5: 16±2dBm MCS 6: 17±2dBm / MCS 6: 16±2dBm MCS 7: 17±2dBm / MCS 7: 16±2dBm
	Management	WEB management: Supports Telnet: Supports Serial: Supports
	Security	MAC control: Supports Encryption: WEP Encryption 64/128bits,WPA,WPA2,802.1x
	Environment Conditions	Working: -30~65°C Storage: -50~80°C Humidity: ≤95% (Non-condensing)
	Dimensions	310 × 95 × 75 mm
	Weight	0.45kg

* Actual performance will always depend on many environmental conditions. Maximum distances are only achieved where there are clear lines of sight and no environmental obstacles or issues.

2.0 Configure Connections

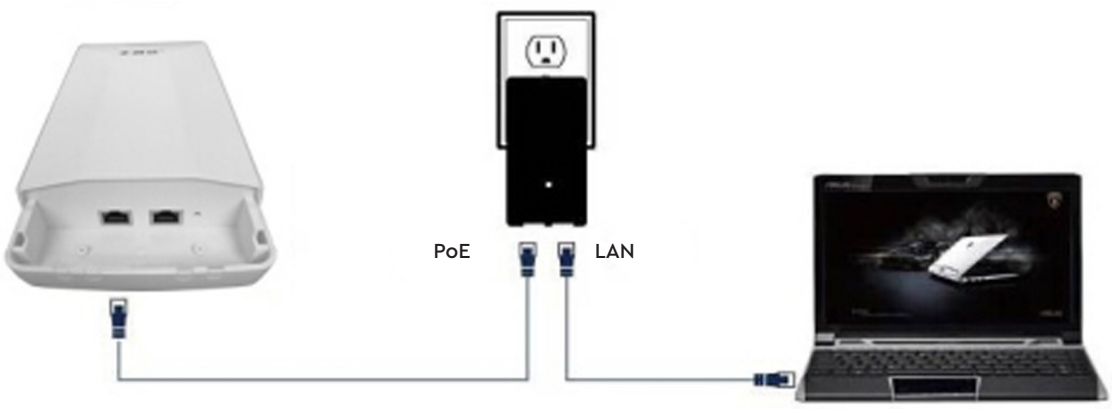


1. First set A-B mode DIP switch, the LED L will appear and start blinking. After the L disappears, it will show the selected configuration.
2. Use the reset button to configure the LED digital display. Click the reset button for the startup configuration status, then click again to increase the character displayed.
3. Assuming that a pair of bridges with the same number is configured (number 1), set radio A to 1 and set radio B to 1 where the LED will flash during this process and L will begin to blink. Wait for a short period and L will stop blinking and will be replaced with the number 1. Number 1 will continue to flash until radio A and radio B are connected, then the number 1 will be solid.

Link	LED's ON – bridge connection is successful, LED's OFF – not connected
LAN1	LED flashing – communication in progress, LED OFF – no data communication
LAN2	LED flashing – communication in progress, LED OFF – no data communication
PWR	Power indicator, power on
LED	H displayed – configured to manual state
LED	L displayed and flashing – represents settings
LED	Flashing, this indicates ready for configuration
Round Light	A, B status LED – indicates which mode the radio is in
RST	Held for 1–5s increases the LED digital display from 0-F
RST	Held for over 10s, system automatically restarts

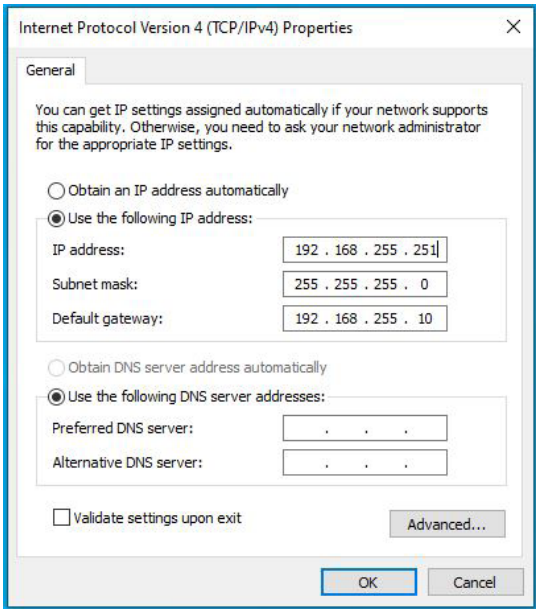
LED	A IP	B IP	2.4 ID	5.8 ID
0	192.168.255.100	192.168.255.200	0	0
1	192.168.255.101	192.168.255.201	1	165
2	192.168.255.102	192.168.255.202	2	161
3	192.168.255.103	192.168.255.203	3	157
4	192.168.255.104	192.168.255.204	4	153
5	192.168.255.106	192.168.255.205	5	149
6	192.168.255.106	192.168.255.206	6	48
7	192.168.255.107	192.168.255.207	7	44
8	192.168.255.108	192.168.255.208	8	40
9	192.168.255.109	192.168.255.209	9	36
A	192.168.255.110	192.168.255.210	10	140
B	192.168.255.111	192.168.255.211	11	132
C	192.168.255.112	192.168.255.212	13	124
D	192.168.255.113	192.168.255.213	96	116
E	192.168.255.114	192.168.255.214	50	108
F	192.168.255.115	192.168.255.215	55	100

2.1 Set-Up Diagram



2.2 LAN Access

1. After powering on the radio, connect LAN2 port to the PC network port and configure IP address and subnet mask to 192.168.255.xxx



2. Open your browser and input the login IP address of the device (if the device is A, enter "http://192.168.255.1", if the device is B, enter "http://192.168.255.2") and press enter to login to the WEB management interface.

2.3 Device A Configuration

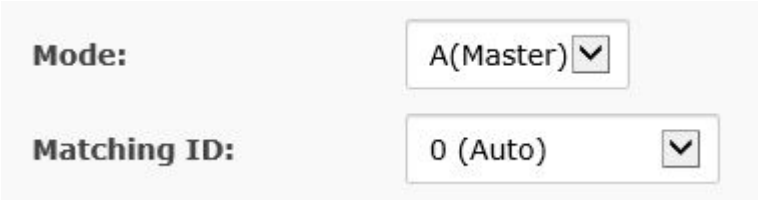
1. Login to the interface of [Bridge Set]
2. Bridge mode is set to mode A
3. Set the ID number (the ID number of device A should be the same as device B)
4. After, select the [Application Settings] button and the configuration is complete.

2.4 Device B Configuration

1. Login to the interface of [Bridge Set]
2. Bridge mode is set to mode B
3. Set the ID number (the ID number of device B should be the same as device A)
4. After, select the [Application Settings] button and the configuration is complete.

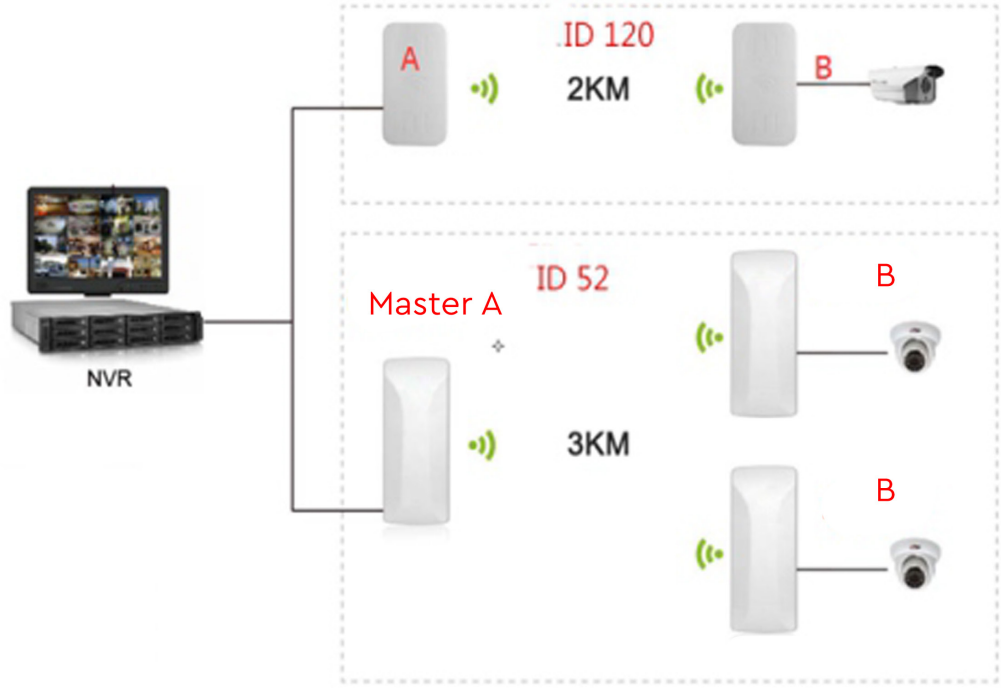
Note:

- For one-to-one configuration, the ID number must be the same for device A and device B.
- For additional one-to-one configurations on the same site, keep the ID numbers different to avoid conflict with eachother.
- To login, enter a user name and password (the default for both is "admin") and press the OK button.
- After a successful login you can access the bridge configuarion interface.



2.5 Using Schematic

1. One-to-one configuration is used for connection between two devices.
2. One-to-many configuarion is used for connection between one device A and multiple device B (Up to 4 at no more that 60 degrees apart).



Sales +44(0)1707 330541
Enquiries sales@genieproducts.co.uk
Website www.genieproducts.co.uk