

Product Specification

Product Name: tuya router gateway

Model Name: DSGW-021-tuya

Revision History

Specification		Sect.	Update Description	By
Rev	Date			
1.0	2020-01-30		New version release	

Approvals

Organization	Name	Title	Date

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1. Introduction

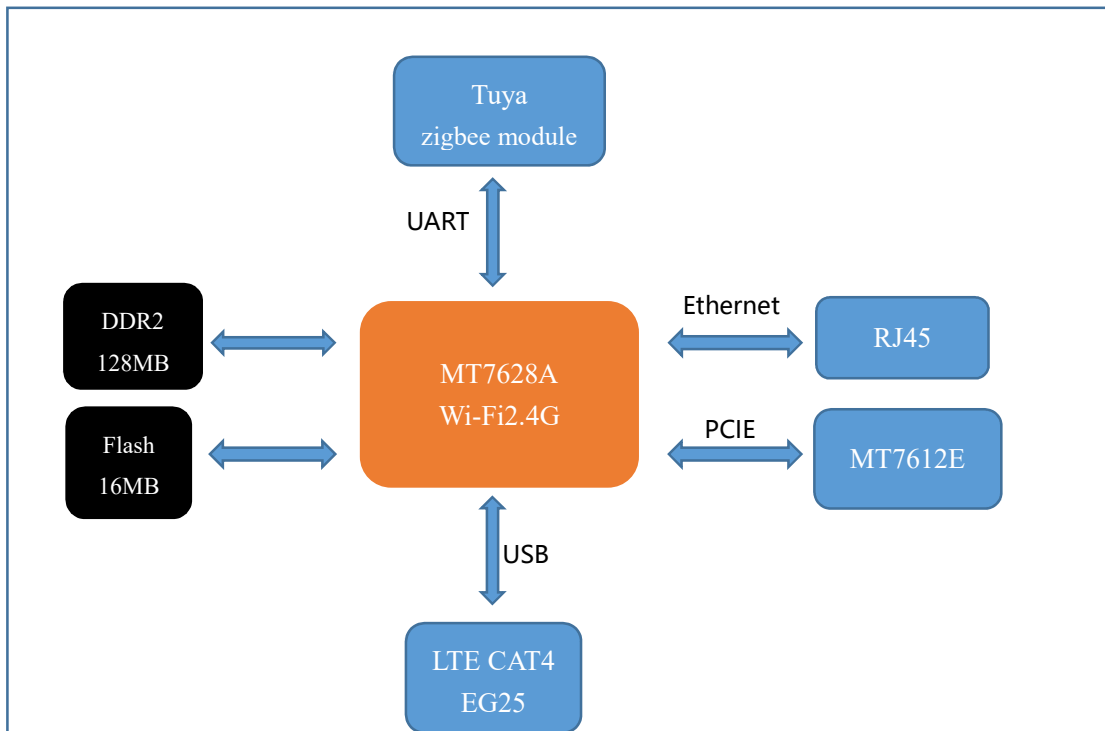
1.1 Purpose& Description

The tuya router gateway is developed based on DSGW-021, it can be connected to tuya's ZigBee device and Wi-Fi device. You can control the devices via the gateway with tuya App or smart life App.

1.2 Product Feature Summary

- Support 5V adapter power supply
- Support IEEE802.11ac,IEEE802.11n,IEEE802.11g,IEEE 802.11b Protocol;
- Support ZigBee3.0
- One WAN/LAN variable network port;
- Support Router function
- Support smartlife and tuya App
- Support LTE cat4

1.3 Hardware block diagram



2. Mechanical Requirement




2.1 Drawings



Model	Function
DSGW-021-tuya-A	Router, CPE, Gateway
DSGW-021-tuya-B	Router, Gateway

3 Electrical Requirements

3.1 Hardware Information

Category	Specifications
Power Supply Port	Support DC Input , Power adapter: 100-240V 50/60HZ, Output is 5V/2A
Reset button	The reset button inside gateway, After pressing the reset button for more than 5 seconds, the Wi-Fi unit will be restored to the factory settings.
Network Interface	WAN/LAN variable.
Indicator LEDs	   Power (Green) Wireless (Yellow) Internet (Red)
Operating Temperature	-10°C~70°C
Currents	350mA@5V

3.2 Performance Requirement

3.2.1 Wi-Fi Performance

	<ul style="list-style-type: none">IEEE wireless LAN standard: IEEE802.11ac, IEEE802.11n; IEEE802.11g; IEEE 802.11b
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Wi-Fi-Performance	<ul style="list-style-type: none"> ● Data Rate: <ul style="list-style-type: none"> IEEE 802.11b Standard Mode:1,2,5.5,11Mbps IEEE 802.11g Standard Mode:6,9,12,18,24,36,48,54 Mbps IEEE 802.11n: MCS0~MCS7 @ HT20/ 2.4GHz band <li style="padding-left: 40px;">MCS0~MCS7 @ HT40/ 2.4GHz band <li style="padding-left: 40px;">MCS0~MCS9 @ HT40/ 5GHz band IEEE 802.11ac: MCS0~MCS9 @ VHT80/ 5GHz band ● Sensitivity: VHT80 MCS9 : -60dBm@10% PER(MCS9) /5GHz band <li style="padding-left: 20px;">HT40 MCS9 : -63dBm@10% PER(MCS9) /5GHz band <li style="padding-left: 20px;">HT40 MCS7 : -70dBm@10% PER(MCS7) /2.4GHz band <li style="padding-left: 20px;">HT20 MCS7 : -71dBm@10% PER(MCS7) /2.4GHz band ● Transmit Power: <ul style="list-style-type: none"> IEEE 802.11ac: 13dBm @HT80 MCS9 /5GHz band IEEE 802.11ac: 16dBm @HT80 MCS0 /5GHz band IEEE 802.11n: 14dBm @HT20/40 MCS7 /5GHz band IEEE 802.11n: 16dBm @HT20/40 MCS0 /5GHz band IEEE 802.11n: 16dBm @HT20/40 MCS7 /2.4GHz band IEEE 802.11g: 16dBm @54MHz IEEE 802.11b: 18dBm @11MHz ● Wireless Security: WPA/WPA2, WEP, TKIP, and AES ● Working mode : Bridge、Gateway、AP Client
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3.2.2 ZigBee3.0 Performance

ZigBee Performance	<ul style="list-style-type: none"> ● TX Power: 17.5dBm ● Range: 100 meters minimum, open filed ● Receiving Sensibility:-94dBm ● Frequency offset: +/-20KHZ
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3.2.3 LTE

Cellular network	<ul style="list-style-type: none"> ● 4G FDD-LTE B1/B3/B7/B8/B20 (2100/1800/2600/900/800MHz) ● TDD-LTE B38/B39/B40/B41 (2600/1900/2300/2500MHz) ● 3G: DC-HSPA+/HSPA+/HSPA/UMTS B1/B8 (2100/900MHz)
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3.2.4 Software feature

Quality of Service	Prioritizes network traffic by device or application
Operating Modes	Wireless Router

WAN Type	Dynamic IP/Static IP/PPPoE/PPTP(Dual Access)/L2TP(Dual Access)
Management	Access Control, Local Management, Remote Management reboot schedule
DHCP	Server, Client, DHCP Client List, Address Reservation
Port Forwarding	Virtual Server, Port Triggering, UPnP, DMZ
Dynamic DNS	DynDns, NO-IP
VPN	PPTP VPN, IPSec VPN , OpenVPN
Access Control	Parental Control, Local Management Control
Firewall Security	DoS, SPI Firewall, IP Address Filter/Domain Filter, IP and MAC Address Binding
Protocols	Supports IPv4 and IPv6
Guest Network	2.4GHz guest network x 1, 5GHz guest network x 1
IPSec VPN	Supports up to 10 IPSec VPN tunnels
Smart home APP	Tuya App or smartlife

4. QA Requirements

4.1 Quality Information

Quality & Testing Information	
Information Description	Standard(Yes) custom(No)
ESD Testing	Yes
RF Antenna Analysis	Yes
Environmental Testing	Yes
Reliability Testing	Yes
Certification	FCC,CE,IC

5. Application

3.Router Function

3.1 Login

Use can login the web management to set the router. Connect to the LAN port of Wi-Fi hotspot to login the gateway.



Authorization Required

Please enter your password

3.2 Modify the password

Click on the change password on the login page to enter the change password page.



Authorization Required

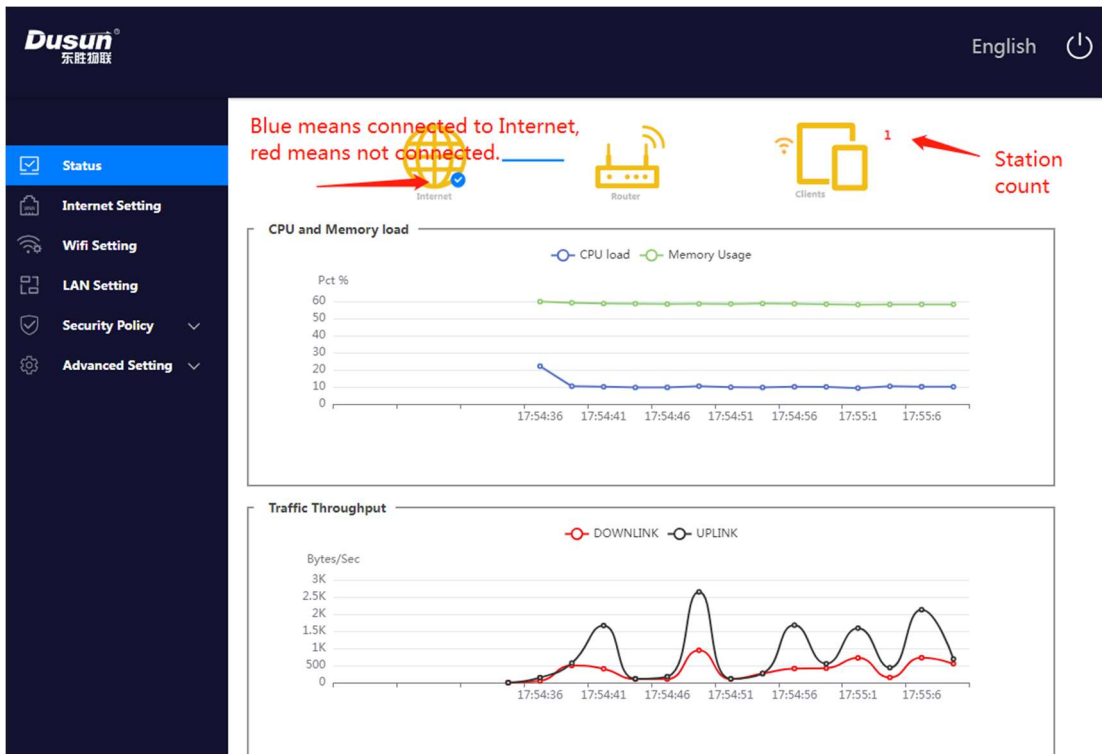
Please enter your current password and new password.

Current Password

New Password

Confirm New Password

3.3 Router Status



3.4 Internet Setting

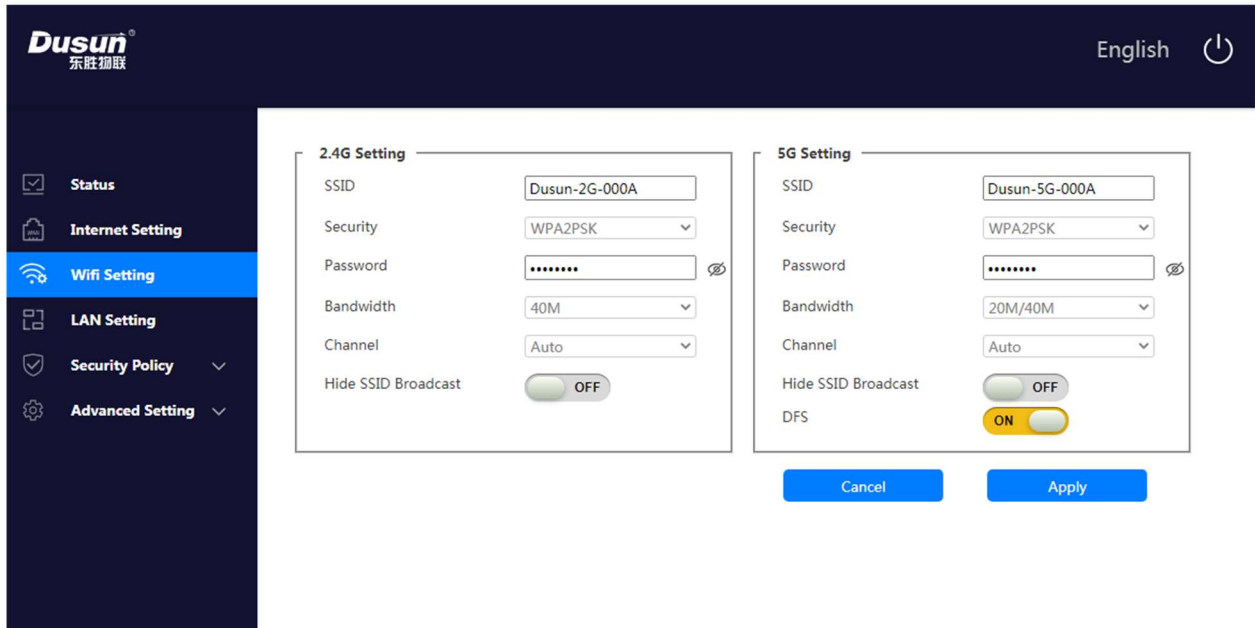
You can setting the WAN Ethernet port and LTE.

The screenshot shows the 'Internet Setting' page in the DUSUN web interface. The left sidebar is the same as in the previous screenshot. The main content area is divided into two panels:

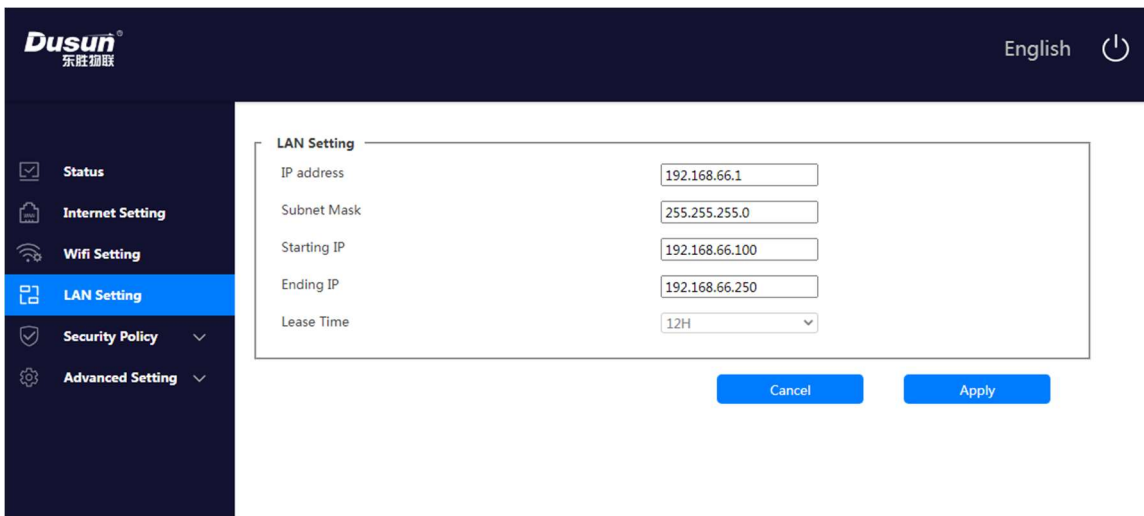
- Wired Internet Setting:**
 - Ethernet WAN:
 - IP config:
- LTE Internet Setting:**
 - LTE WAN:
 - If you don't know below info, leave them as blank.
 - APN:
 - AuthMode:
 - Username:
 - Password:

At the bottom of the settings panels are two buttons: 'Cancel' and 'Apply'.

3.5 Wi-Fi setting

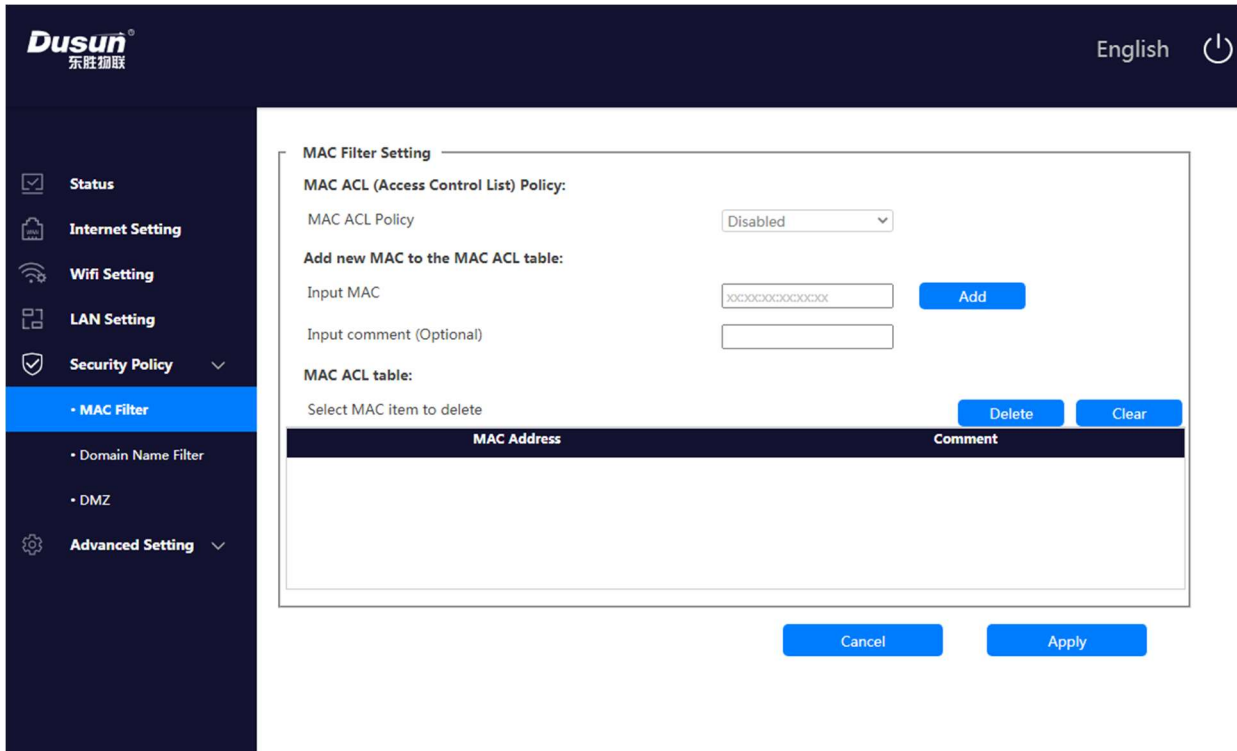


3.6 LAN setting

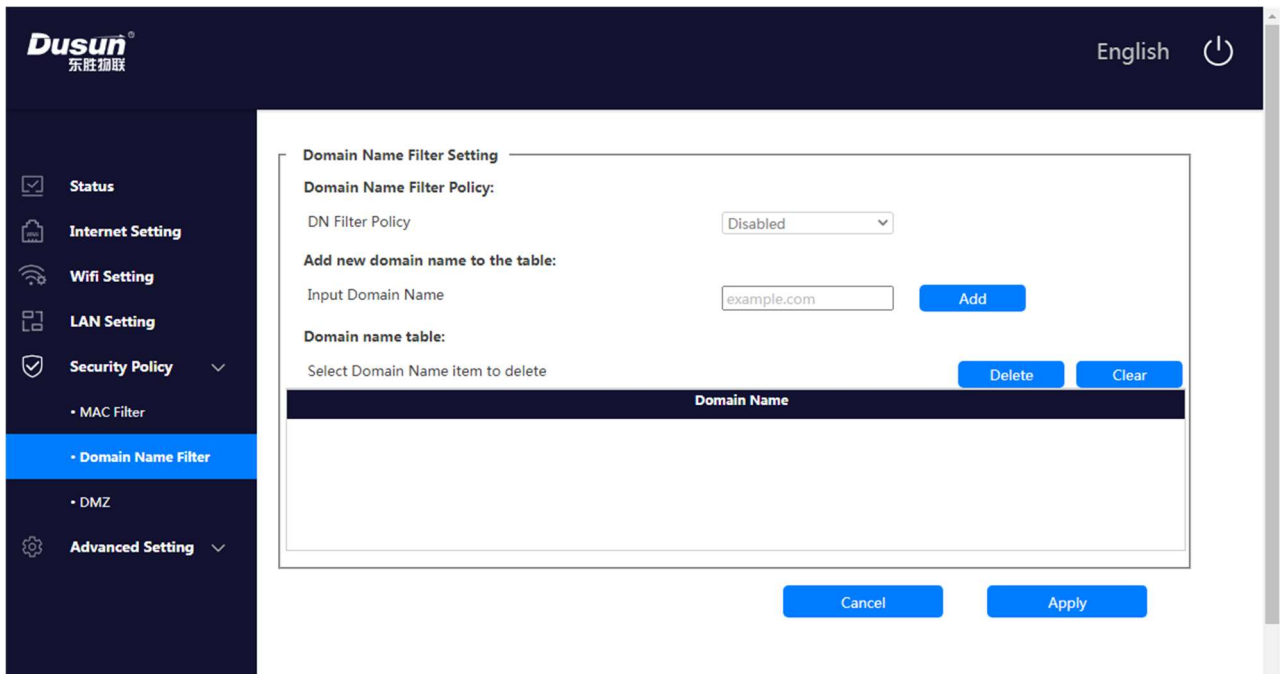


3.7 Security Policy

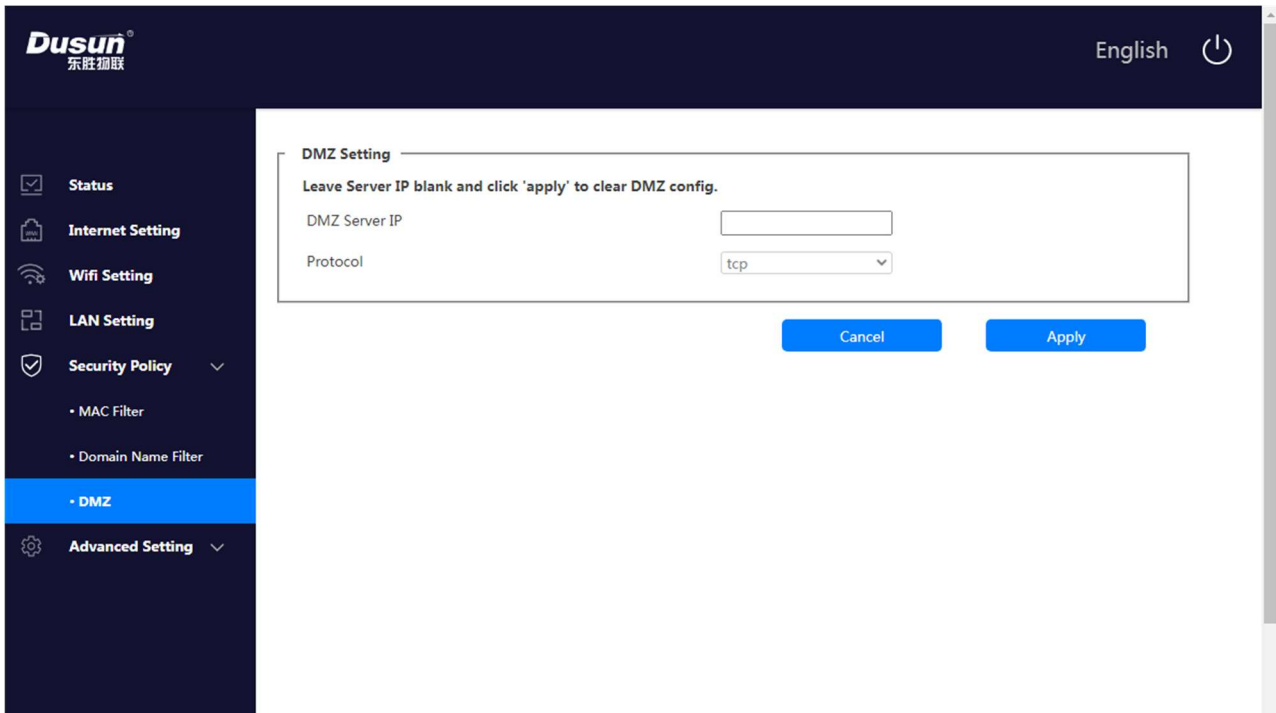
3.7.1 MAC filter



3.7.2 Domain Name filter

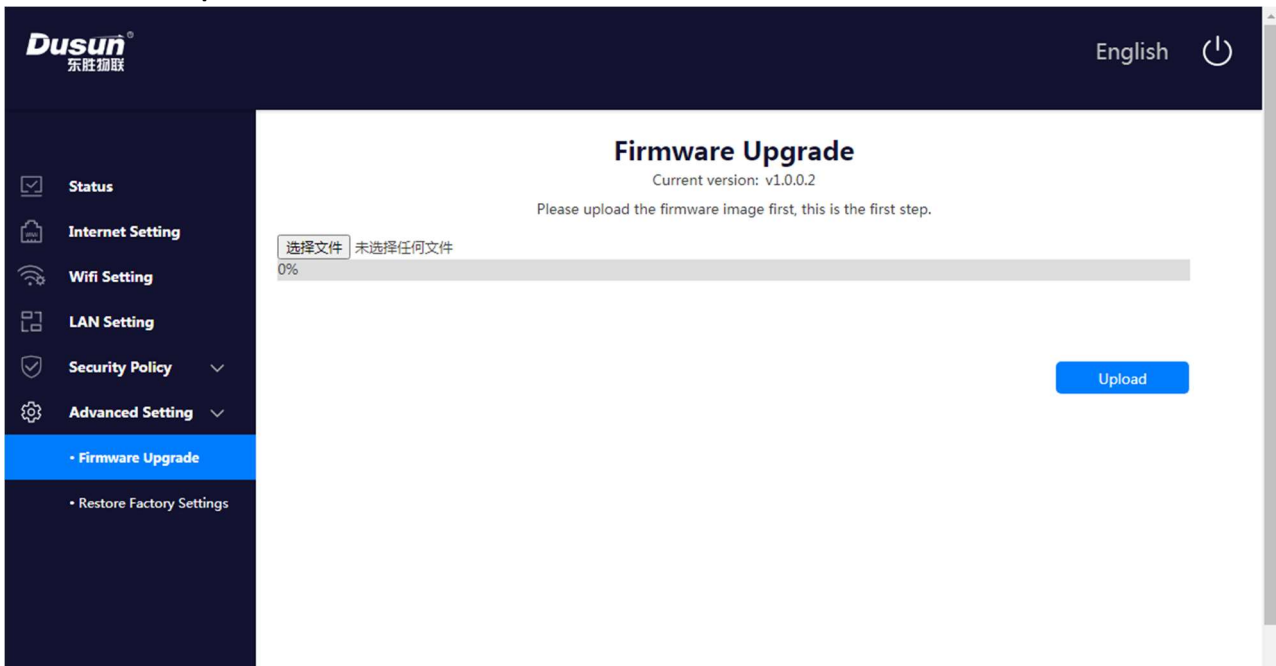


3.7.3 DMZ

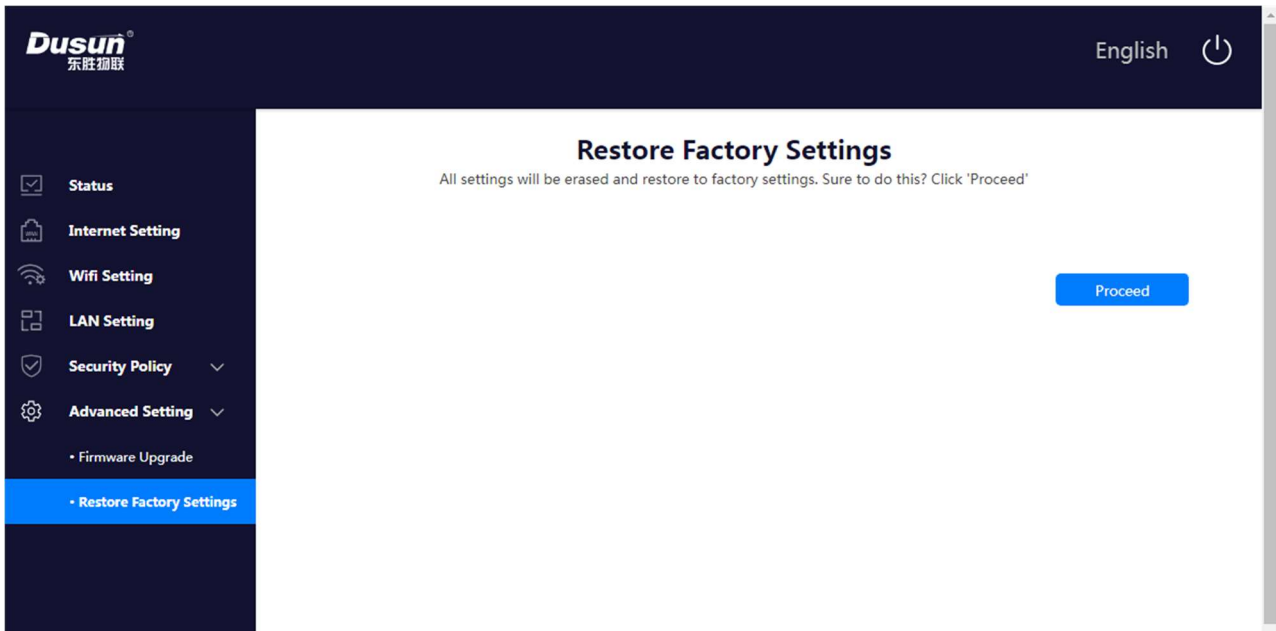


3.8 Advanced Setting

3.8.1 Firmware update



3.8.2 Factory Setting



4. APP

4.1 Download the APP

Use your phone to scan QR code or search “smart Life”app in google play store or APP store to download and install it.



4.2 Add the gateway

Select Add Device and find Other (Wi-Fi) in the list of others

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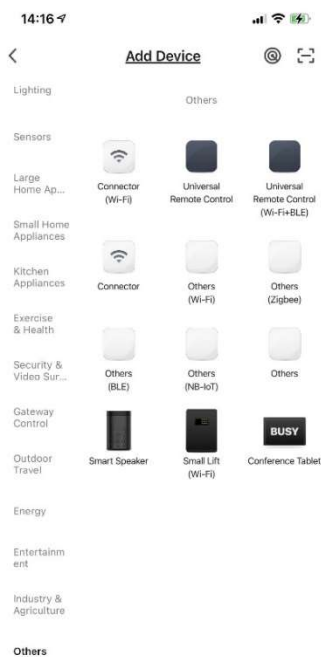
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Connect your mobile phone to the device's hotspot.



● Connect your phone to the hotspot shown below:

● Go back and add devices.

Go to Connect