

4-Port I/O Gateway

SIG-5601 User Manual

Version 1.3

Sollae Systems

<https://www.ezTCP.com>



This symbol, found on your product or on its packaging, indicates that this product should not be treated as household waste when you wish to dispose of it. Instead, it should be handed over to an applicable collection point for the recycling of electrical and electronic equipment. By ensuring this product is disposed of correctly, you will help prevent potential negative consequences to the environment and human health, which could otherwise be caused by inappropriate disposal of this product. The recycling of materials will help to conserve natural resources. For more detailed information about the recycling of this product, please contact your local city office, household waste disposal service or the retail store where you purchased this product.

Note:

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

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1 Overview

1.1 Introduction

SIG-5601 is an industrial I/O gateway connected to Sollae Cloud. It is equipped with 4 analog input ports, 4 digital input ports, 4 digital output ports, an Ethernet and a WiFi interface. Users can remotely monitor the values of sensors/devices connected to the digital and analog input ports of this product, as well as control the devices connected to the digital output ports by using a web browser on your PC, tablet or smartphone.

☞ *This document presents the information related to device only. To connect the device to Sollae Cloud, see [Sollae Cloud User Guide](#).*

1.2 Features

- 4 analog input ports: Voltage (0 ~ 5V) or Current (4 ~ 20mA, 0 ~ 20mA)
- 4 digital input ports: Wet Contact, Dry Contact, NPN, PNP input
- 4 digital output ports (Relay): both NO and NC output
- Digital input port with Up/Down Counter
- Ethernet and WiFi (USB WiFi Dongle is required) Interfaces
- Freely connected to Sollae Cloud via MQTT
- Data is encrypted and securely transmit using TLS 1.2
- Client certificate authentication for devices
- Industrial temperature range (-40°C ~ +85°C)

1.3 Specification

Digital Input	
Input Type	Dry Contact / Wet Contact / NPN / PNP
Input Voltage Range	4.5V ~ 25V
Number of Ports	4 ports
Digital Output	
Output Type	Relay (Type C - NO: Max DC 30V/5A with resistive load, NC: Max DC 30V/1A with resistive load)
Number of Ports	4 ports
Analog Input	
Input Type	Voltage (0V ~ 5V) or Current (4mA ~ 20mA / 0mA ~ 20mA)
Resolution	12 bits
Number of Ports	4 ports
Network Physical Interface	
Wired LAN	10Base-T/100Base-TX Ethernet (RJ45) Ethernet Speed Auto Sense, 1:1 or Cross-over Cable Auto Sense
Wireless LAN	IEEE802.11b/g Wireless LAN with a USB dongle
Software Functions	
Wireless LAN Mode	Infrastructure
Protocols	IP, TCP, ICMP, DHCP, mDNS, MQTT, SSL/TLS 1.2 WPA-PSK / WPA2-PSK, WPA-Enterprise (TTLS / PEAP)
Network Security	Client certificate-based mutual authentication over TLS 1.2
Indicators	
LED	PWR, RUN, STS, LINK, MTX, MRX, Di0~Di3, Do0~Do3
Management	
spFinder	Configuration and Monitoring Tool
Access Security	Password
Dimension	
Size & Weight	180mm x 110mm x 26mm, about 485g
Operating Environment	
Input Voltage	PWR1 - Terminal Block, DC8.5V~38V PWR2 - DC jack, DC5V±0.5V USB (Setup) - USB type-B, DC5V±0.5V
Protection	Reverse Voltage Protection / Surge Protection
Current Consumption	Typically, 3.3W
Operating Temperature	-40℃ ~ +85℃ (with 5% ~ 85% RH, avoiding icing and condensation)
Storage Temperature	-40℃ ~ +85℃
Certificate	
KC	Registration (KN 32, KN 35)
CE	EMC 2014/30/EU, RoHS 2011/65/EU
FCC	FCC Part 15 Subpart B, Class A

Table 1-1 Specification

1.4 Interface

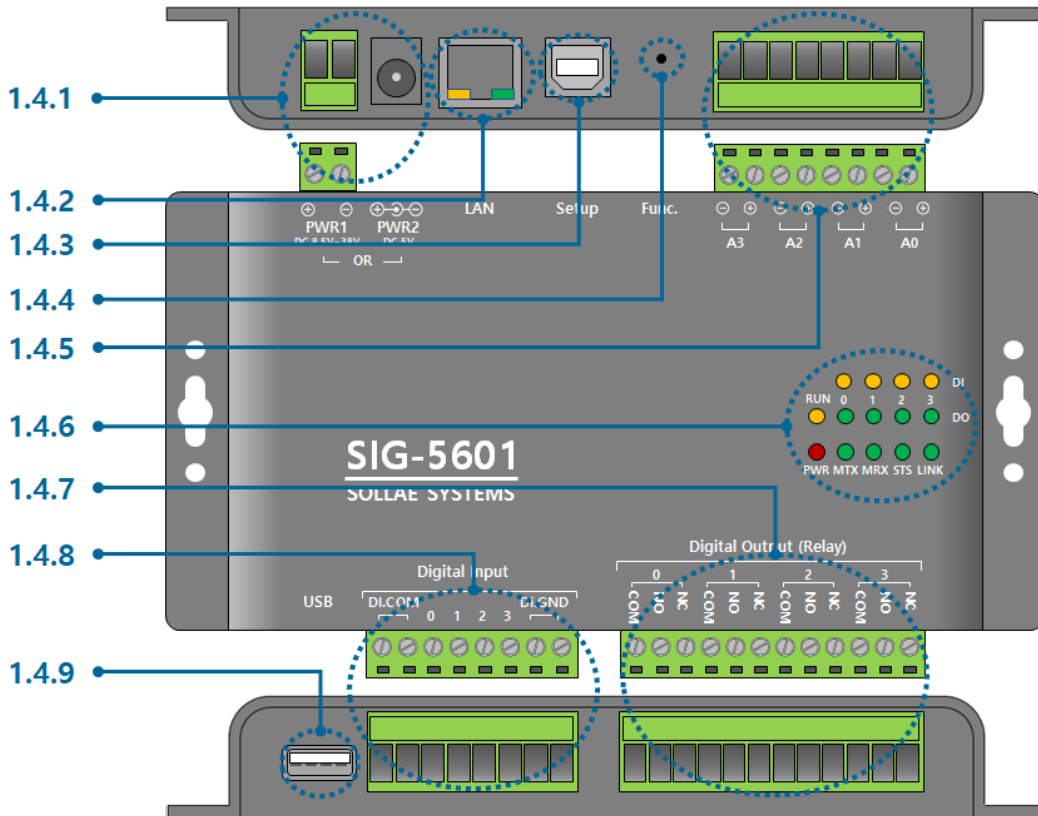


Figure 1-1 Interface

1.4.1 Power

- PWR1 Port

This port is one of the main input ports for supplying power (DC 8.5V ~ 38V). This port is interfaced with a 2-pole terminal block.

- PWR2 Port

This port is one of the main input ports for supplying power (DC 5 ± 0.5V). The specification is as follows:

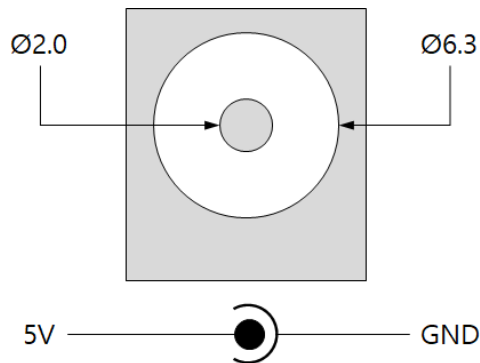


Figure 1-2 Power

1.4.2 Ethernet

SIG-5601 provides 10/100Mbps Ethernet. The pin assignment is as follows:

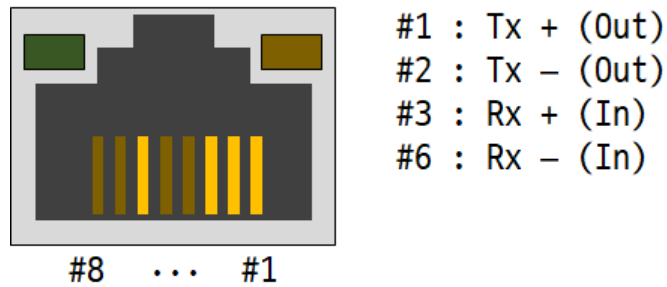


Figure 1-3 Ethernet

1.4.3 Setup Port

This port is used for making a connection with a PC via USB cable.

1.4.4 Function Button

This button is used to implement a factory reset.

1.4.5 Analog Input Port

This port is interfaced with a 5mm pitch 8-pole terminal block.

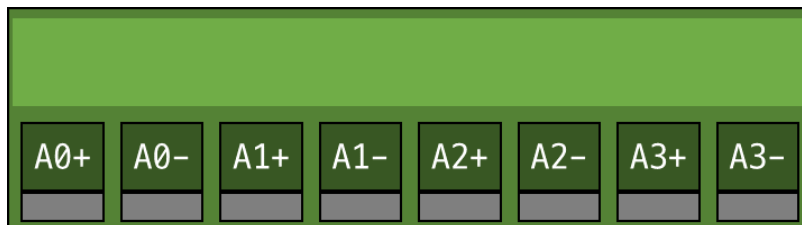


Figure 1-4 Analog Input Port

- Port Specification

Division	Value
Number of ports	4
Input mode	Voltage (0 ~ 5V) or Current (4 ~ 20mA / 0 ~ 20mA)
Resolution	12-bit (0 ~ 4,095)

Table 1-2 Port Specification

1.4.6 LED

LED operations according to each state are as follows:

When the supplied power is stable: PWR



When the supplied power is NOT stable: PWR



When the script is running: RUN



When the script is running: RUN



When a network is not connected: LINK



When a network is connected: LINK



When an IP address is not assigned: LINK



When a MQTT connection is NOT established: STS



When a MQTT connection is established: STS



When sending data to the cloud: MTX



When receiving data (command) from cloud: MRX



When the input/output port is LOW: Di0 ~ Di3, Do0 ~ Do3



When the input/output port is HIGH: Di0 ~ Di3, Do0 ~ Do3



1.4.7 Digital Output Port

This port is interfaced with a 5mm pitch 12-pole terminal block.

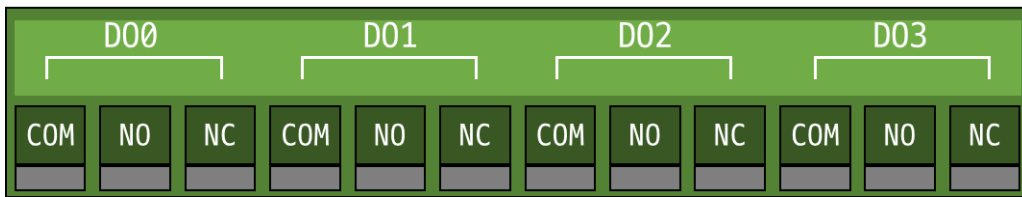


Figure 1-5 Digital output port

- Port Specification

Division		Value
Number of ports		4
Max. Allowed Current at DC 30V	Normal Open	5A
	Normal Close	1A

Table 1-3 Port Specification

☞ *The port specifications are for resistive loads. For capacitive loads such as SMPS and inductive loads such as motors, the current under normal operation should be about 10 ~ 20% of the maximum allowed current.*

- Port Operation

State	NO Operation	NC Operation
LOW	NOT Connected to C0/C1	Connected to C0/C1
HIGH	Connected to C0/C1	NOT Connected to C0/C1

Table 1-4 Port Operation

1.4.8 Digital Input Port

This port is interfaced with a 5mm pitch 8-pole terminal block.

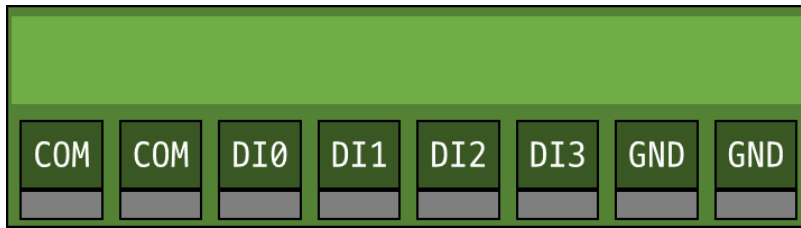


Figure 1-6 Digital Input Port

- Port Specification

Division	Value
Number of ports	4
Maximum Input Voltage	DC 25V
Voltage Required for HIGH decision	higher than DC 4.5V
Voltage for LOW decision	lower than DC 1V

Table 1-5 Port Specification

● Circuit Diagram of Digital Input

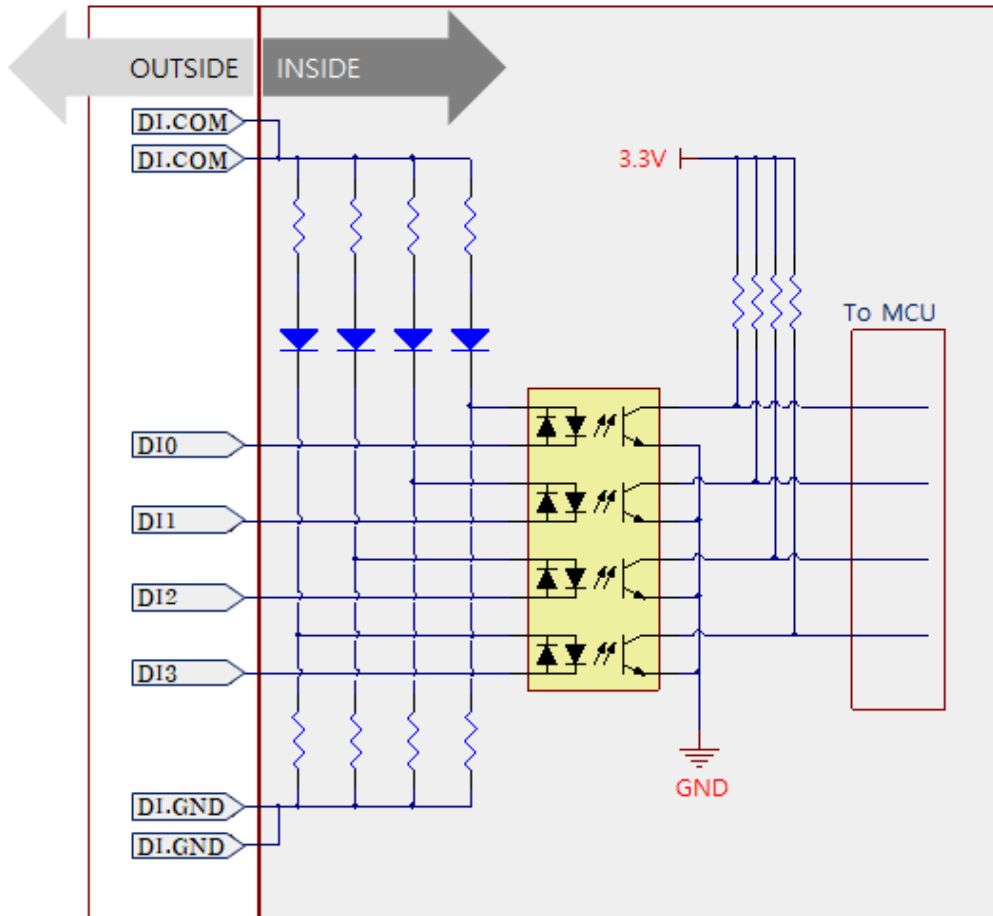


Figure 1-7 Circuit Diagram of Digital Input

- WET contact

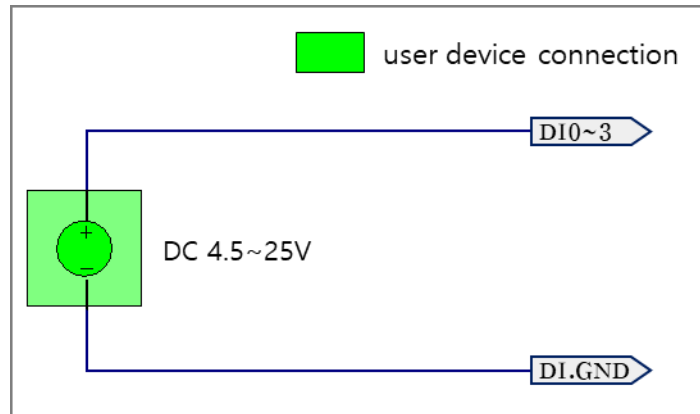


Figure 1-8 WET contact

- DRY contact

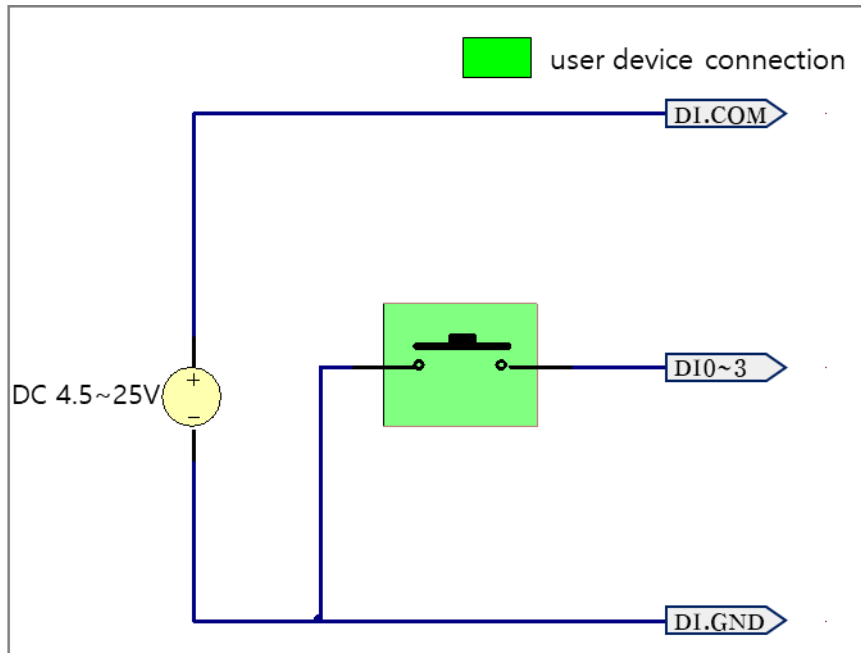


Figure 1-9 DRY contact

● NPN transistor

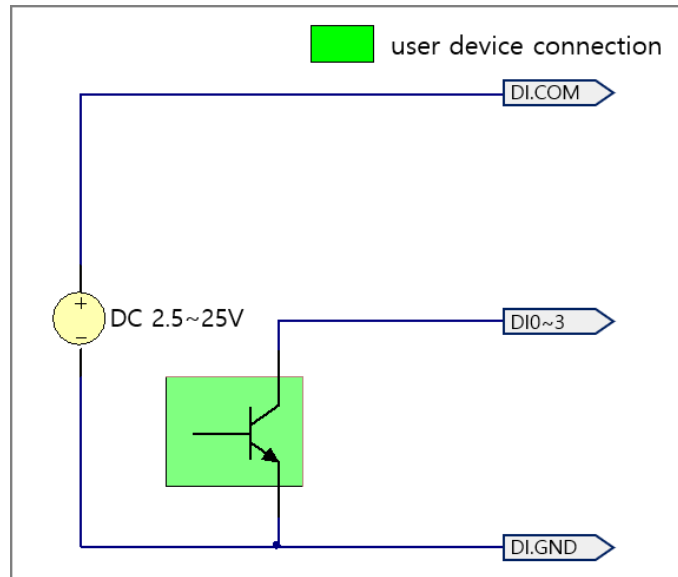


Figure 1-10 NPN transistor

● PNP transistor

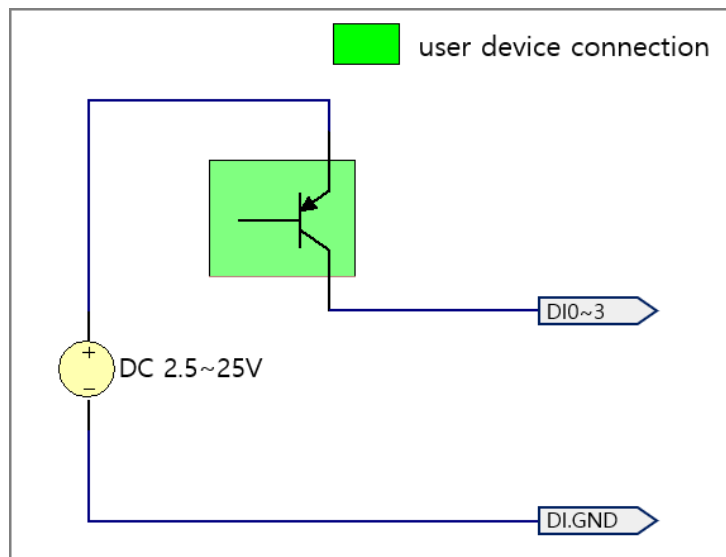


Figure 1-11 PNP transistor

1.4.9 USB Host Port

This port is for connecting a USB wireless LAN adapter. You can connect your product to IEEE802.11b/g wireless LAN with connecting a USB wireless LAN adapter to this port.

☞ Caution: Only adapters using Ralink RT3070/5370 chipsets are available.

2 Preparation

2.1 Installing the Setting Tool

You need a Windows program which is called spFinder to use this product. Download the program on our web site and install it on your PC.

Functions of the spFinder are as follows:

- Searching products connected via network and USB
- Setting products
- Monitoring status of products

2.2 Connecting a Product

Connect a product with your PC via a LAN cable or a USB cable. In the case of using a LAN cable, note that your PC and the product should be on the same local area network.

2.3 Searching Devices

Run spFinder on your PC and press the search button. If you select the product found, the setup menu appears on the right.

2.4 Logging in

Before accessing the searched product, you need to log in first. The default ID and password are as follows:

Division	Default Values
ID	sig-5601
Password	sig-5601

Table 2-1 The default values of ID and password

☞ If you search the product via network and it has the default value for a password, spFinder automatically processes the login.

3 Settings

3.1 Network

3.1.1 Obtain an IP address automatically

This product can automatically obtain an IP address by DHCP. A DHCP server is required to use this.

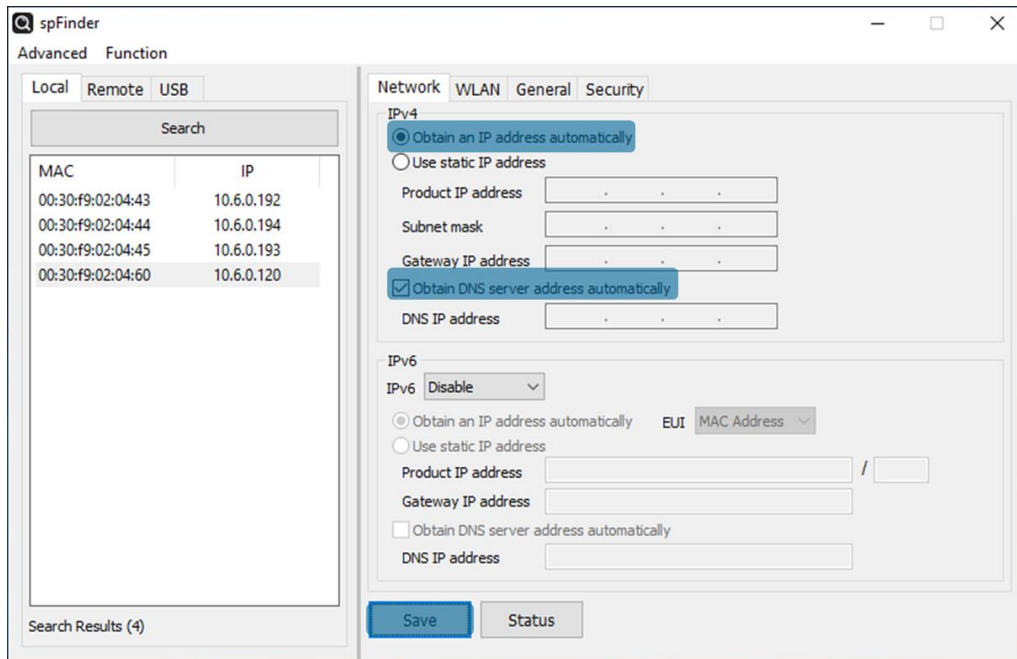


Figure 3-1 Obtain an IP address automatically

- Select the [Obtain an IP address automatically].
- Check the [Obtain DNS server address automatically] and click the [Save] button.

3.1.2 Use a Static IP address

You can set a static IP address to this product.

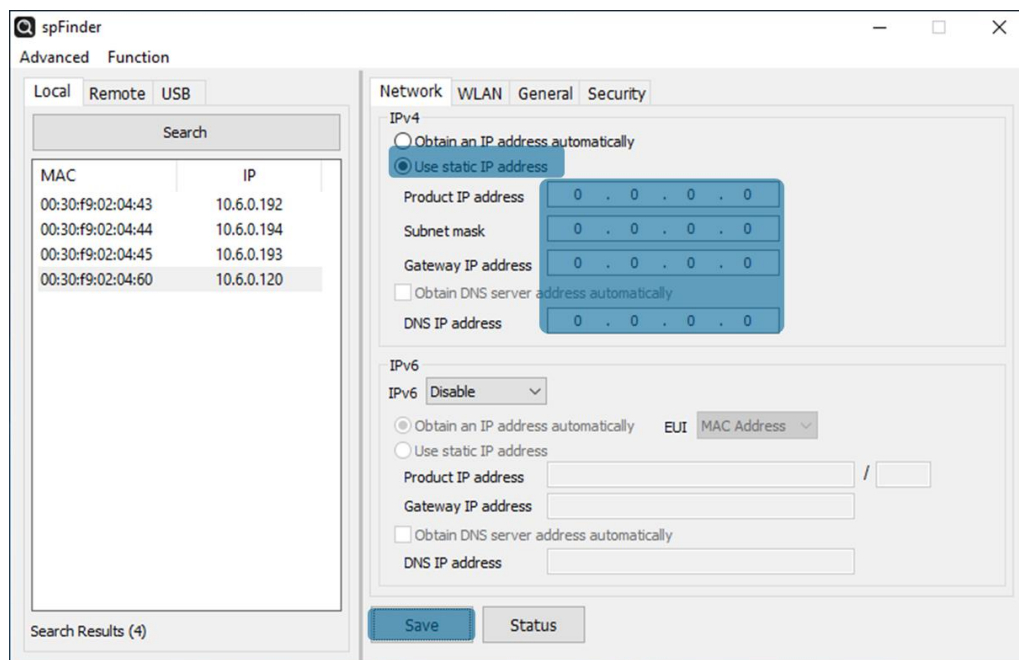


Figure 3-2 Use a static IP address

- Select the [Use static IP address].
- Set the [Local IP address], [Subnet mask], [Gateway IP address] and [DNS IP address].
- Click the [Save] button.

3.2 WLAN

WLAN setting is only for connecting your product to a wireless LAN. Make sure to connect a USB wireless LAN adapter before you set it.

☞ *Note: Ethernet connectivity of your product is disabled when you using the wireless LAN function.*

☞ *The WLAN Topology should set to Infrastructure mode only. Soft AP mode is not suitable for the cloud-connected devices.*

3.2.1 Infrastructure

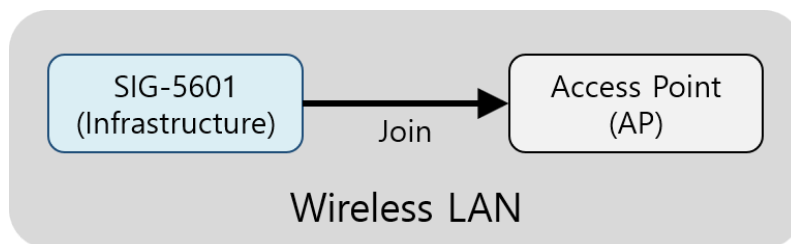


Figure 3-3 Infrastructure mode

The wireless network includes an Access Point (AP) in the infrastructure mode. Related information of the AP (SSID, shared key and etc.) is required to be set on your product to connect the product to the AP.

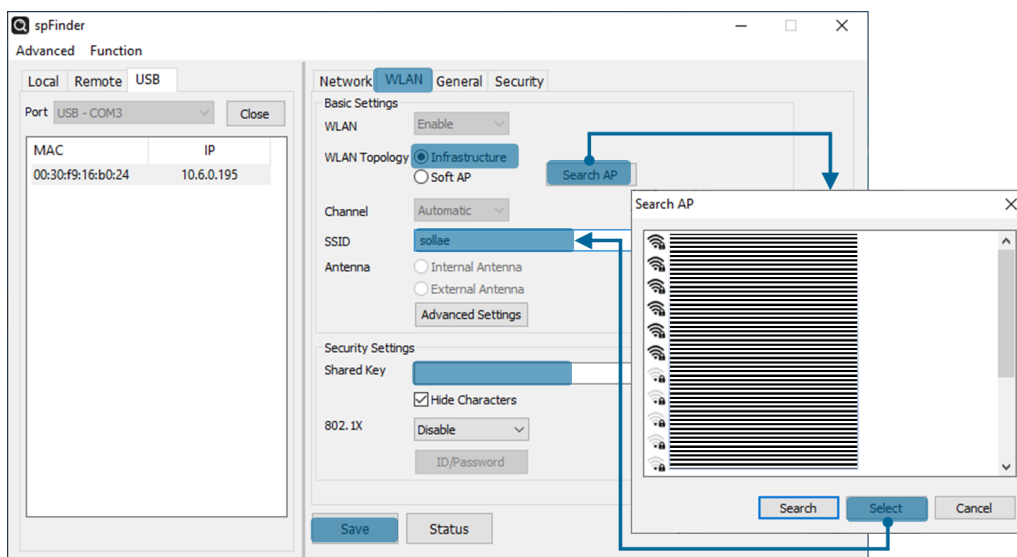


Figure 3-4 Settings of infrastructure

- Select the [WLAN Topology] to the [Infrastructure] on the [WLAN] tab.
- Choose an AP by clicking the [Search AP] button or input an SSID in the [SSID] input box.
- Input a password to the [Shared Key] input box if the AP requires a password.
- Click the [Save] button.

3.2.2 Advanced Settings

You can configure advanced settings for WLAN by clicking the [Advanced Settings] button. We recommend using the default values if you do not have any problem with it.

- PHY Mode

You have three options for PHY mode and those are [802.11], [802.11b] and [802.11b/g] mode.

- Short Preamble

Under good condition of WLAN environment, you can expect a slight improvement by enabling this option. Otherwise, you had better to disable this option.

- Short Slot

Using this option, you can expect some improvement in WLAN performances. If you are in bad condition of WLAN environment, you had better to disable this option.

- CTS Protection

Using this option, you can expect some improvement in WLAN performances under WLAN environment that both 802.11b and 11g devices are.

3.3 General

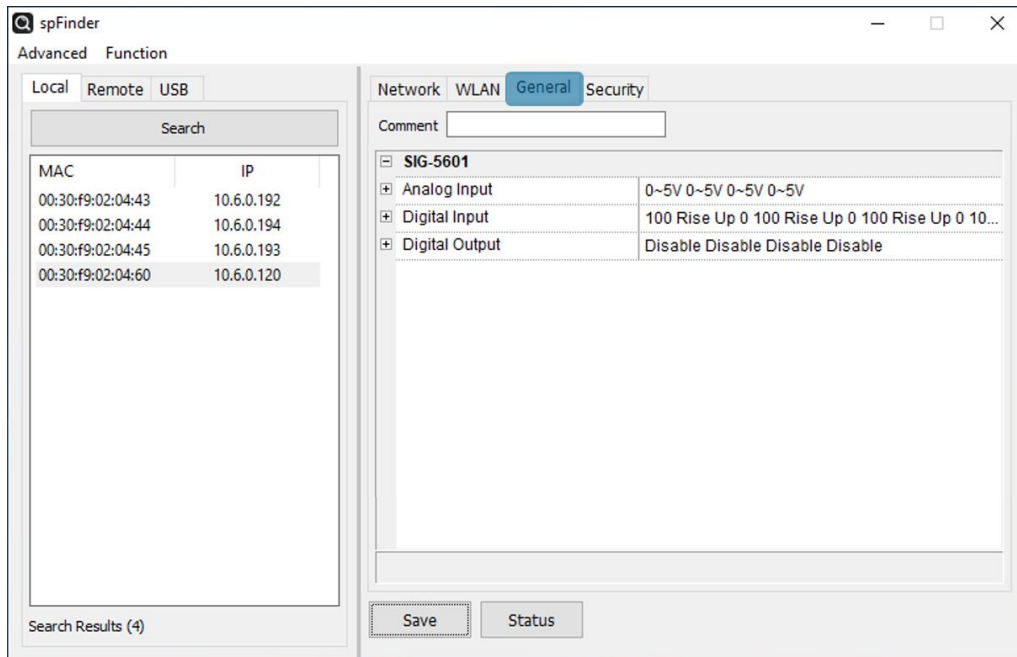


Figure 3-5 General

3.3.1 Comment

This setting is for storing the product description. The maximum setting size of this item is 32 bytes. We can add information such as: When a device is registered to the cloud, this field will be used as the default device description on Sollae Cloud.

3.3.2 Analog Input

This item selects the analog input type. The setting value can be selected among [0 ~ 5V], [4 ~ 20mA] and [0 ~ 20mA]. The default value is [0 ~ 5V].

The analog input mode can be set via spFinder only. It is impossible to set via Sollae Cloud.

3.3.3 Digital Input

- Valid Time (Unit: ms)

This item is to set the valid time of input signal. In order for the input signal to be judged as a valid signal, it must last longer than the time set in this item. The setting unit is milliseconds; The range is 100 to 30000. The default value is 100.

- Counter Type

This item is to set the counter type of each port. You can choose one among three options: Rise (rising edge), Fall (falling edge) and Both (rising edge or falling edge). The default value is Rise.

- Counter Direction

This item is to set the counter direction: Up (counting up) or Down (counting down). The default value is Up

- Default Count Value

The value that counter will start after the device booting up.

☞ *Valid Time, Counter Type, Counter Direction, and Default Count Value can also be set via Sollae Cloud after the device is registered under an account.*

3.3.4 Digital Output

- Fail Safe Mode

This item is to enable/disable the Fail-Safe function. When the MQTT connection to Sollae Cloud is lost, if Fail-Safe is enabled, the output port is set to LOW, otherwise the output port keeps the current state.

☞ *The fail-safe mode can be set via spFinder only. It is impossible to set via Sollae Cloud.*

☞ *User Interface and other features configurations can only be set via Sollae Cloud.*

3.4 Security

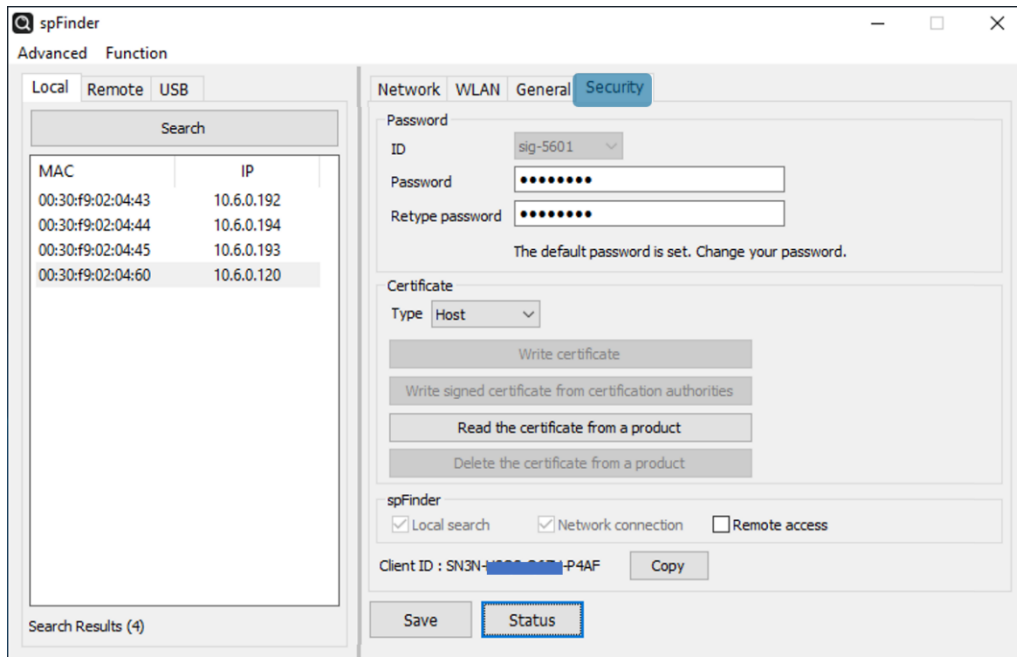


Figure 3-6 Security

3.4.1 Password

Both ID and password are required to access this product. Note that changing the default password to another is highly recommended for security. The password should be longer than 8 characters.

- Input a password to use to [Password] and [Retype password].
- Click the [Save] button.

3.4.2 Certificate

All TLS certificates were preloaded to the device, please ignore this part.

3.4.3 spFinder

These items are related to spFinder use.

- Local search

If this item is not checked, you will not be able to search for or connect to the product on your local network. This item can be set only when the product is connected via USB.
- Network connection

If this item is not checked, the product cannot be searched on the local network and the product cannot be connected on the local or remote network. This item can be set only when the product is connected via USB.

- Remote access

If this item is checked, the product can be connected from the remote network.
For security, this item is unchecked by default.

3.4.4 Client ID

The Unique ID which is used to register the device under your account in Sollae Cloud. See more detail on [Sollae Cloud](#).

4 Management

4.1 Checking Status

This is a function to view the current status of the product. Information in the [Status] window is automatically updated every second. After searching and connecting the product with spFinder, press the [Status] button to display this window. When you open this window, the spFinder connects to the product and keeps the connection until you close the window or time out. While the connection is maintained, other hosts cannot access the product using the spFinder.

4.1.1 Product Information

- Product Information Window

This area shows some major information of your product.

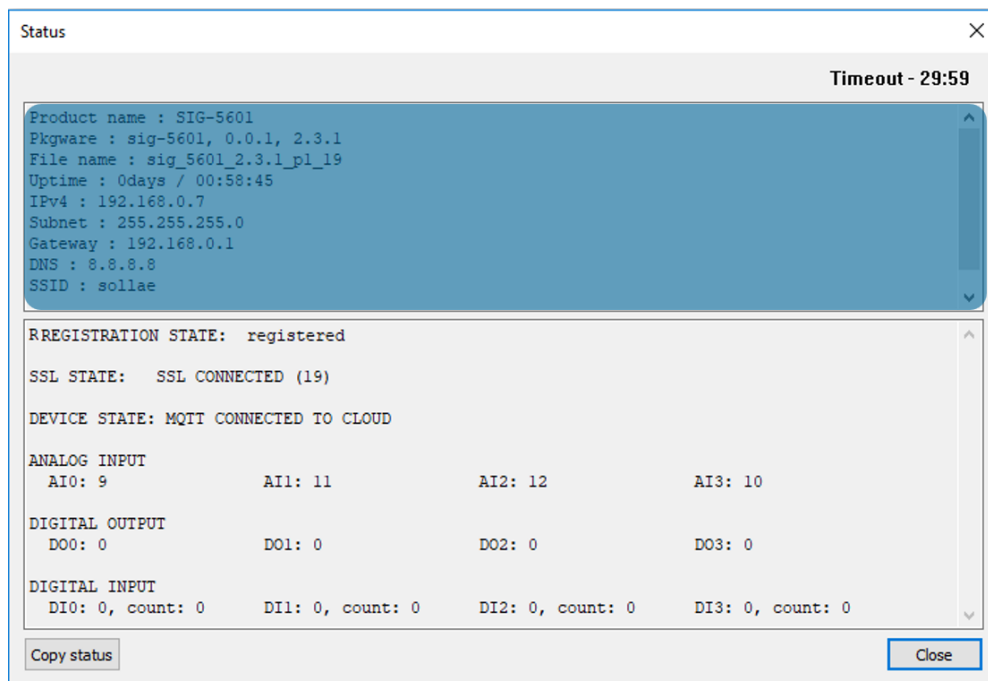


Figure 4-1 Product Information Window

- Product Information List

Item	Description
Product name	Product name
Pkgware	Model name, package version, Firmware version
File name	File name
Uptime	Elapsed time since it boots up (day / hour:min:sec)
IPv4	Assigned IPv4 address
Subnet	Assigned subnet mask
Gateway	Assigned gateway IP address
DNS	Assigned DNS server IP address
SSID	The SSID of WLAN

Table 4-1 Product Information List

4.1.2 Communication Status

- Communication Status Window

This area shows some communication status of your product. This area is refreshed every second.

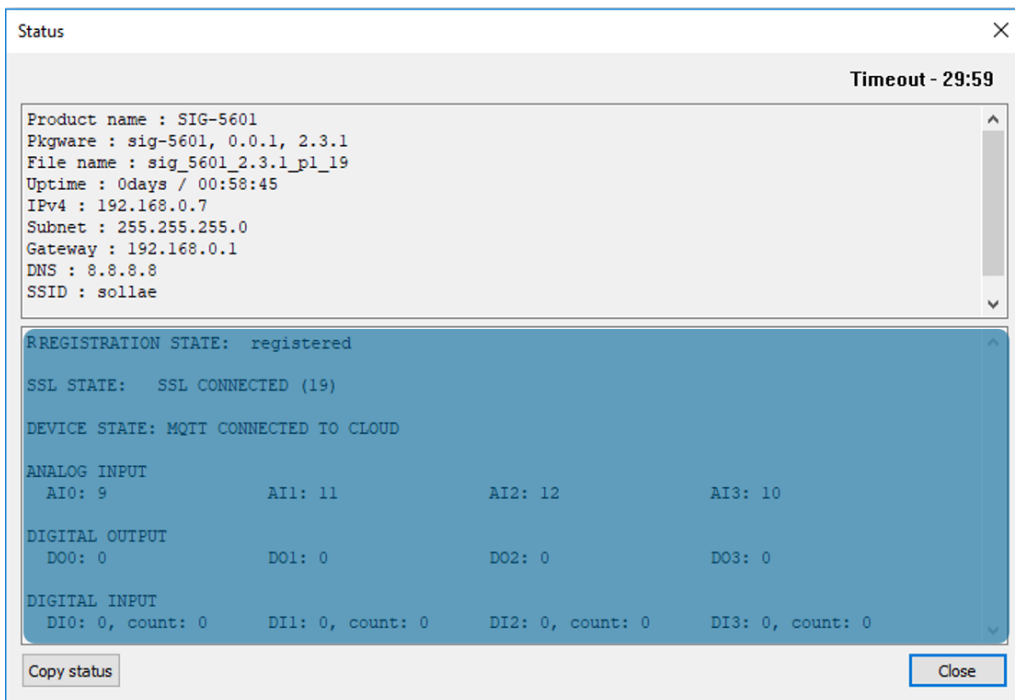


Figure 4-2 Communication Status Window

● REGISTRATION STATE

The registration state indicates whether the device is registered on Sollae Cloud under an account or not.

Status	Description
checking	Checking the registration status
unregistered	The device is unregistered under any account
registered	The device was registered under an account

Table 4-2 REGISTRATION STATE

● SSL STATE

SSL/TLS connection state.

Status	Description
SSL CLOSED	Disconnected
SSL CONNECTING	Connecting
SSL CLOSING	Closing connection
SSL CONNECTED	Connected

Table 4-3 SSL STATE

● DEVICE STATE

The device operation state.

Status
STARTING
UPDATING INFORMATION TO CLOUD
FAILED TO UPDATE INFORMATION TO CLOUD
DEVICE IS UNREGISTERED TO AN USER
CONNECTING MQTT SERVER
MQTT CLOSED
MQTT CONNECTED TO CLOUD
MQTT PING TO CLOUD
DELAYING BEFORE RECONNECTING
UPGRADING PKGWARE
CONFIGURING DEVICE
APPENV FAILED
CERTS FAILED

Table 4-4 DEVICE STATE

● ANALOG INPUT

Shows the value of analog input ports.

Item	Description
AI0~3	The ADC value is ranged from 0 to 4095, which is converted from the analog input signal on the port. The analog input signal is ranged from 0 to 5V, 4 to 20mA, or 0 to 20mA in 0~5V, 4~20mA, or 0~20mA input types, respectively. This value may be rescaled by Sollae Cloud to other measurement (e.g., temperature, humidity...) to be displayed on the Cloud.

Table 4-5 ANALOG INPUT

- DIGITAL OUTPUT

Shows the state of digital output ports.

Item	Description
D00~3	Current state of each digital output port

Table 4-6 DIGITAL OUTPUT

- DIGITAL INPUT

Shows the state and counter's value of digital input ports.

Item	Description
DI0~3	Current state of each digital input port and counter value (0: LOW, 1: HIGH)

Table 4-7 DIGITAL INPUT

4.1.3 Timeout

This is the timeout display function that appears in the upper right of the status window. When this time reaches zero, the connection between spFinder and the product is lost. The initial value is 30 minutes. If you move the mouse pointer in the internal area of the status window, the timer is reset to the initial value again.

4.1.4 Copy status

Clicking this button copies all information displayed in the current status window to the clipboard.

4.2 Firmware Change

New firmware can be released when adding functions or fixing bugs. If you are using old firmware, you can upgrade it to the latest version. Firmware can be upgraded online or manually via spFinder, or remotely via Cloud.

4.2.1 Online Upgrade

If you can access to the Internet by your PC, the Firmware can be upgraded online.

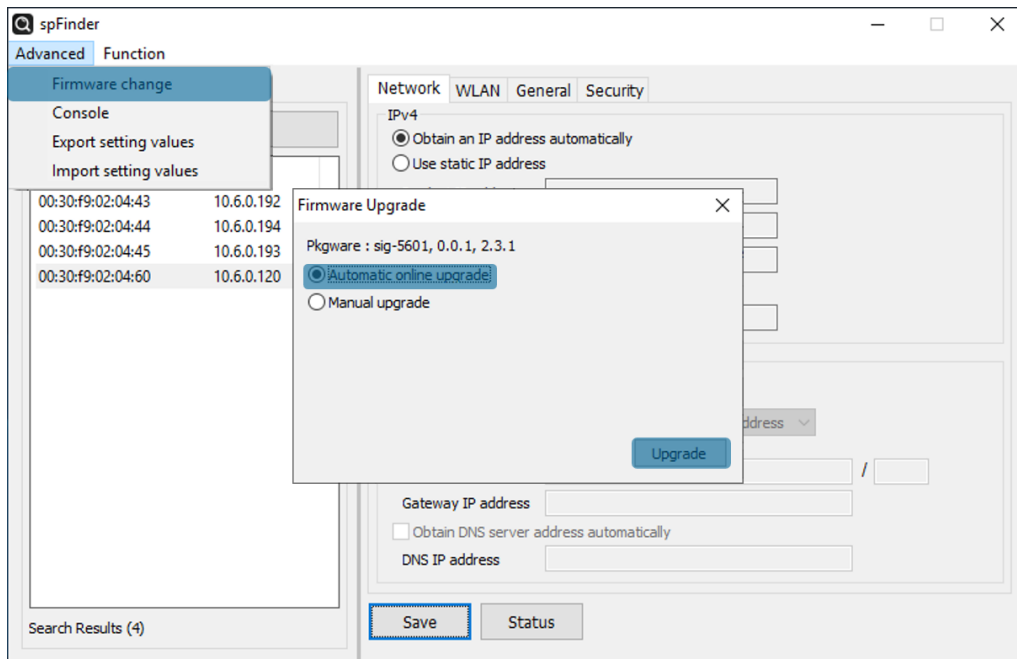


Figure 4-3 Online Upgrade

- Search and Connect to your product by spFinder.
- Click [Advanced] > [Firmware change] menu.
- Click [Upgrade] button selecting [Automatic online upgrade] menu.

4.2.2 Manual Upgrade

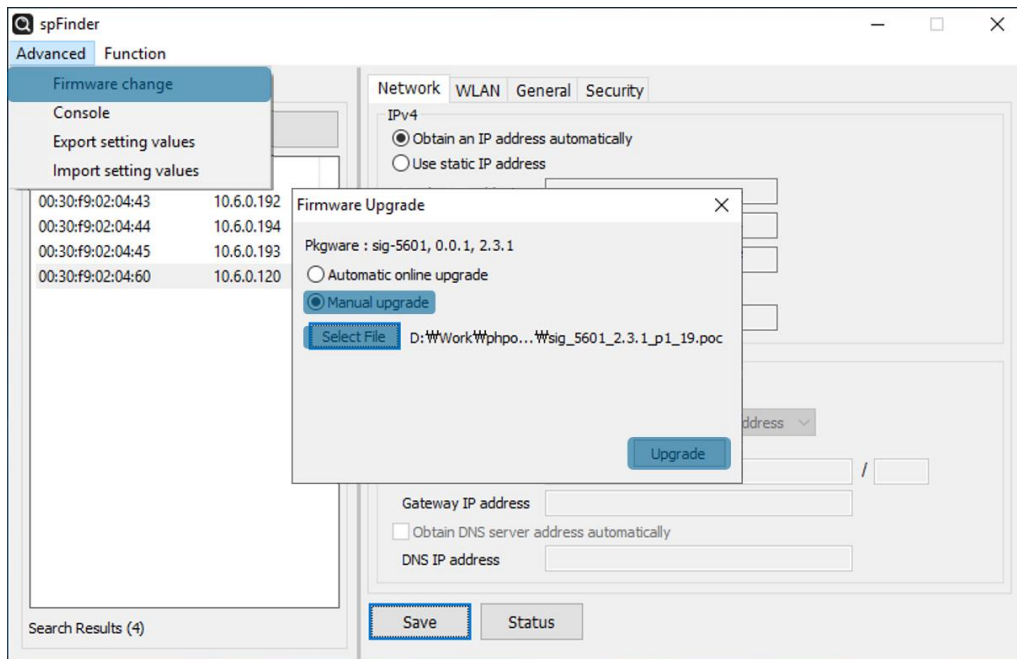


Figure 4-4 Manual Upgrade

- Download a Firmware file to your PC.
- Search and connect to your product by spFinder.
- Click [Advanced] > [Firmware Change] menu.
- Select to [Manual upgrade] on the [Firmware Upgrade] window.
- Click [Select File] button and select the Firmware file on you PC
- Click [Upgrade] button.

4.2.3 Remote Upgrade via cloud

See [Cloud User Guide](#)

4.3 Console

The console function analyzes and displays the the device's operation status and log.

After searching and connecting the product with spFinder, click [Console] in the [Advanced] menu to display the console window. When you open this window, the spFinder connects to the product and keeps the connection until you close the window or time out. While the connection is maintained, other hosts cannot access the product using the spFinder.

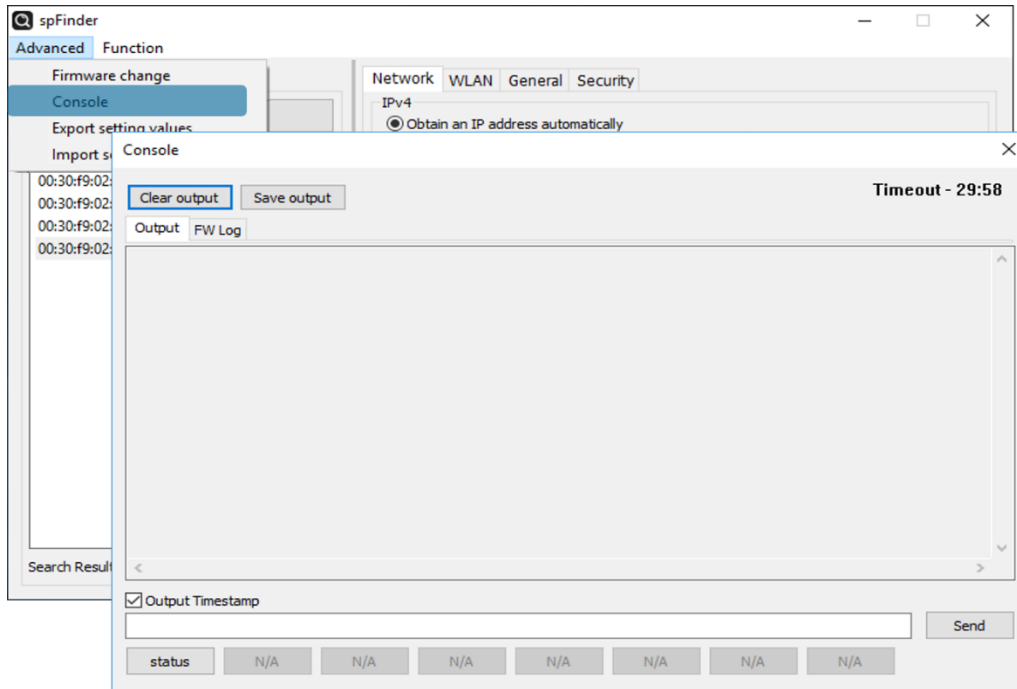


Figure 4-5 Console

4.3.1 Output Tab

This tab displays console messages.

- Clear output
Pressing this button clears all output messages on the Output tab.
- Save output
Press this button to save the message to be output to the Output tab as a file. While saving the message as a file, the size of the saved file is displayed, and the Timeout function does not work.
- status
Pressing this button outputs product status information on the Output tab

4.3.2 FW Log Tab

This tab displays the log message from Firmware.

4.3.3 Timeout

This is the timeout display function that appears in the upper right of the console window. When this time reaches zero, the connection between spFinder and the product is lost. The initial value is 30 minutes. If you move the mouse pointer in the internal area of the console window, the timer is reset to the initial value again. This function does not work while using the [Save output] function.

4.4 Export/Import Setting Values

The [Export setting values] menu saves setting values of your product as a file. The password is not included in the file. The [Import setting values] menu loads a setting values from a file which is saved by the [Export setting values] menu. Find these functions at the [Advanced] menu.

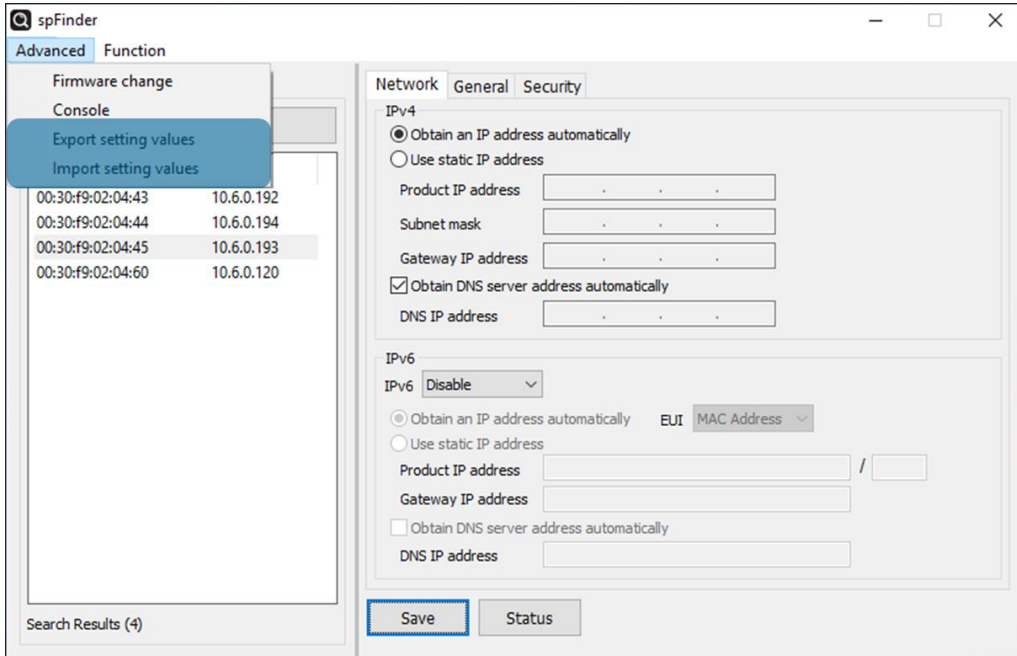


Figure 4-6 Export/Import Setting Values

4.5 Factory Reset

Performing the Factory Reset, you can restore all the settings to the default including the password. Follow the procedure below by checking the status of RUN LED.

1. Press and immediately release the function button.

A horizontal bar representing the RUN LED indicator. The left portion is solid orange and contains the text "RUN". The right portion is a gradient from orange to white.

2. Press the function button and keep the state more than 5 seconds.

A horizontal bar representing the RUN LED indicator. The left portion is solid orange and contains the text "RUN". The rest of the bar consists of a series of vertical orange and grey stripes, representing a flashing state.

3. Once the RUN led is turned off, release the button within 2 seconds.

A horizontal bar representing the RUN LED indicator. The left portion is solid orange and contains the text "RUN". The rest of the bar is solid grey. The text "2 seconds" is written in white on the grey background.

4. The factory reset is started when you release the button. After that, your product will reboot.

A horizontal bar representing the RUN LED indicator. The left portion is solid orange and contains the text "RUN". The rest of the bar consists of a series of vertical orange and grey blocks, representing a flashing state.

5 Technical Support and Warranty

5.1 Technical Support

If you have any question regarding operation of the product, visit Customer Support FAQ corner and the message board on Sollae Systems' web site or send us an email at the following address:

- E-mail: support@eztcp.com
- Q & A board: <https://www.eztcp.com/en/support/qna.php>

5.2 Warranty

5.2.1 Free Repair Services

For product failures occurring within 2 years after purchase, Sollae Systems provides free repair services or exchange the product. However, if the product failure is due to user's fault, repair service fees will be charged or the product will be replaced at user's expense.

5.2.2 Charged Repair Services

For product failures occurring after the warranty period (2 years) or resulting from user's fault, repair service fees will be charged and the product will be replaced at user's expense.

6 Precaution and Exemption from Liability

6.1 Precaution

- Sollae Systems is not responsible for product failures occurring due to user's alteration of the product.
- Specifications of the product are subject to change without prior notice for performance improvement.
- Sollae Systems does not guarantee successful operation of the product if the product was used under conditions deviating from the product specifications.
- Reverse engineering of firmware and applications provided by Sollae Systems is prohibited.
- Use of firmware and applications provided by Sollae Systems for purposes other than those for which they were designed is prohibited.
- Do not use the product in an extremely cold or hot place or in a place where vibration is severe.
- Do not use the product in an environment in which humidity is high or a lot of oil exists.
- Do not use the product where there is caustic or combustible gas.
- Sollae Systems does not guarantee normal operation of the product under the conditions a lot of noise exists.
- Do not use the product for a purpose that requires exceptional quality and reliability relating to user's injuries or accidents – aerospace, aviation, health care, nuclear power, transportation, and safety purposes.
- Sollae Systems is not responsible for any accident or damage occurring while using the product.

6.2 Exemption from Liability

6.2.1 English version

In no event shall Sollae Systems Co., Ltd. and its distributors be liable for any damages whatsoever (including, without limitation, damages for loss of profit, operating cost for commercial interruption, loss of information, or any other financial loss) from the use or inability to use the SIG-5601 even if Sollae Systems Co., Ltd. or its distributors have been informed of such damages.

The SIG-5601 is not designed and not authorized for use in military applications, in nuclear applications, in airport applications or for use in applications involving explosives, or in medical applications, or for use in security alarm, or for use in a fire alarm, or in applications involving elevators, or in embedded applications in vehicles such as but not limited to cars, planes, trucks, boats, aircraft, helicopters, etc.

In the same way, the SIG-5601 is not designed, or intended, or authorized to test, develop, or be built into applications where failure could create a dangerous situation that may result in financial losses, damage to property, personal injury, or the death of people or animals. If you use the SIG-5601 voluntarily or involuntarily for such unauthorized applications, you agree to subtract Sollae Systems Co., Ltd. and its distributors from all liability for any claim for compensation.

Sollae Systems Co., Ltd. and its distributors entire liability and your exclusive remedy shall be Sollae Systems Co., Ltd. and its distributors option for the return of the price paid for, or repair, or replacement of the SIG-5601.

Sollae Systems Co., Ltd. and its distributors disclaim all other warranties, either expressed or implied, including, but not limited to, the implied warranties of merchantability and fitness for a particular purpose, with respect to the SIG-5601 including accompanying written material, hardware and firmware.

6.2.2 French version

- Documentation

La documentation du boîtier SIG-5601 est conçue avec la plus grande attention. Tous les efforts ont été mis en œuvre pour éviter les anomalies. Toutefois, nous ne pouvons garantir que cette documentation soit à 100% exempt de toute erreur. Les informations présentes dans cette documentation sont données à titre indicatif. Les caractéristiques techniques peuvent changer à tout moment sans aucun préavis dans le but d'améliorer la qualité et les possibilités des produits.

- Copyright et appellations commerciales

Toutes les marques, les procédés, les références et les appellations commerciales des produits cités dans la documentation appartiennent à leur propriétaire et Fabricant respectif.

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De même, le boîtier SIG-5601 n'est pas conçu, ni destiné, ni autorisé pour expérimenter, développer ou être intégré au sein d'applications dans lesquelles une défaillance de celui-ci pourrait créer une situation dangereuse pouvant entraîner des pertes financières, des dégâts matériel, des blessures corporelles ou la mort de personnes ou d'animaux. Si vous utilisez le boîtier SIG-5601 volontairement ou involontairement pour de telles applications non autorisées, vous vous engagez à soustraire Sollae Systems Co., Ltd. et ses distributeurs de toute responsabilité et de toute demande de dédommagement.

En cas de litige, l'entière responsabilité de Sollae Systems Co., Ltd. et de ses distributeurs vis-à-vis de votre recours durant la période de garantie se limitera exclusivement selon le choix de Sollae Systems Co., Ltd. et de ses distributeurs au remboursement de votre produit ou de sa réparation ou de son échange. Sollae Systems Co., Ltd. et ses distributeurs démentent toutes autres garanties, exprimées ou implicites.

Tous les boîtiers SIG-5601 sont testés avant expédition. Toute utilisation en dehors des spécifications et limites indiquées dans cette documentation ainsi que les court-circuit, les chocs, les utilisations non autorisées, pourront affecter la fiabilité, créer des dysfonctionnements et/ou la destruction du boîtier SIG-5601 sans que la responsabilité de Sollae Systems Co., Ltd. et de ses distributeurs ne puissent être mise en cause, ni que le boîtier SIG-5601 puisse être échangé au titre de la garantie.

- Rappel sur l'évacuation des équipements électroniques usagés

Le symbole de la poubelle barré présent sur le boîtier SIG-5601 indique que vous ne pouvez pas vous débarrasser de ce dernier de la même façon que vos déchets courants. Au contraire, vous êtes responsable de l'évacuation du boîtier SIG-5601 lorsqu'il arrive en fin de vie (ou qu'il est hors d'usage) et à cet effet, vous êtes tenu de le remettre à un point de collecte agréé pour le recyclage des équipements électriques et électroniques usagés. Le tri, l'évacuation et le recyclage séparés de vos équipements usagés permettent de préserver les ressources naturelles et de s'assurer que ces équipements sont recyclés dans le respect de la santé humaine et de l'environnement. Pour plus d'informations sur les lieux de collecte des équipements électroniques usagés, contacter votre mairie ou votre service local de traitement des déchets.

7 Revision History

Date	Version	Description	Author
2020.12.02.	1.0	1. Created	Khanh
2021.09.08.	1.1	1. Change condition of digital input volt range	Amy Kim
2021.12.09.	1.2	1. Add a condition about operating temperature	Amy Kim
2022.07.28.	1.3	1. Add a notification about FCC	Roy Lee