2-Port Digital Output I/O Gateway

SIG-5550 User Manual

Version 1.0

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-5550 is an industrial I/O Gateway consisting of 2 digital output ports. Users can use this product to transmit ON/OFF signals to remote user devices via Modbus/TCP.

1.2 Features

- 2 digital output ports (Relay): Both NO and NC output
- Support pulse mode on digital output ports
- Support Modbus/TCP
- Support multiple TCP connection (Max. 4 channels)
- Support a master mode for the *Internet Switch*
- Industrial temperature range (-40℃ ~ +85℃)

☞ *Internet Switch: A configuration that connects devices to each other without an HMI to transmit digital signals in both directions*

1.3 Specification

Digital Output	
Output Type	Relay (Type C - NO/NC, Max DC 30V/2A with resistive load)
Number of Ports	2 ports
Network Physical Interface	
Network Interface	10Base-T/100Base-TX Ethernet (RJ45) Ethernet Speed Auto Sense 1:1 or Cross-over Cable Auto Sense
Software Functions	
Protocols	IPv4/IPv6 Dual Stack, TCP/UDP, ICMP, DHCP, mDNS, Modbus/TCP, SSL/TLS
Indicators	
LED	PWR, STS, MTX, MRX, Do0, Do1
Management	
spFinder	Configuration and Monitoring Tool
Security	Password
Dimension	
Size	94mm x 57mm x 24mm
Weight	about 68g
Operating Environment	
Input Voltage	DC5V ± 0.5V
Protection	Reverse Voltage Protection / Surge Protection
Current Consumption	Typically, 328mA
Operating Temperature	-40℃ ~ +85℃
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

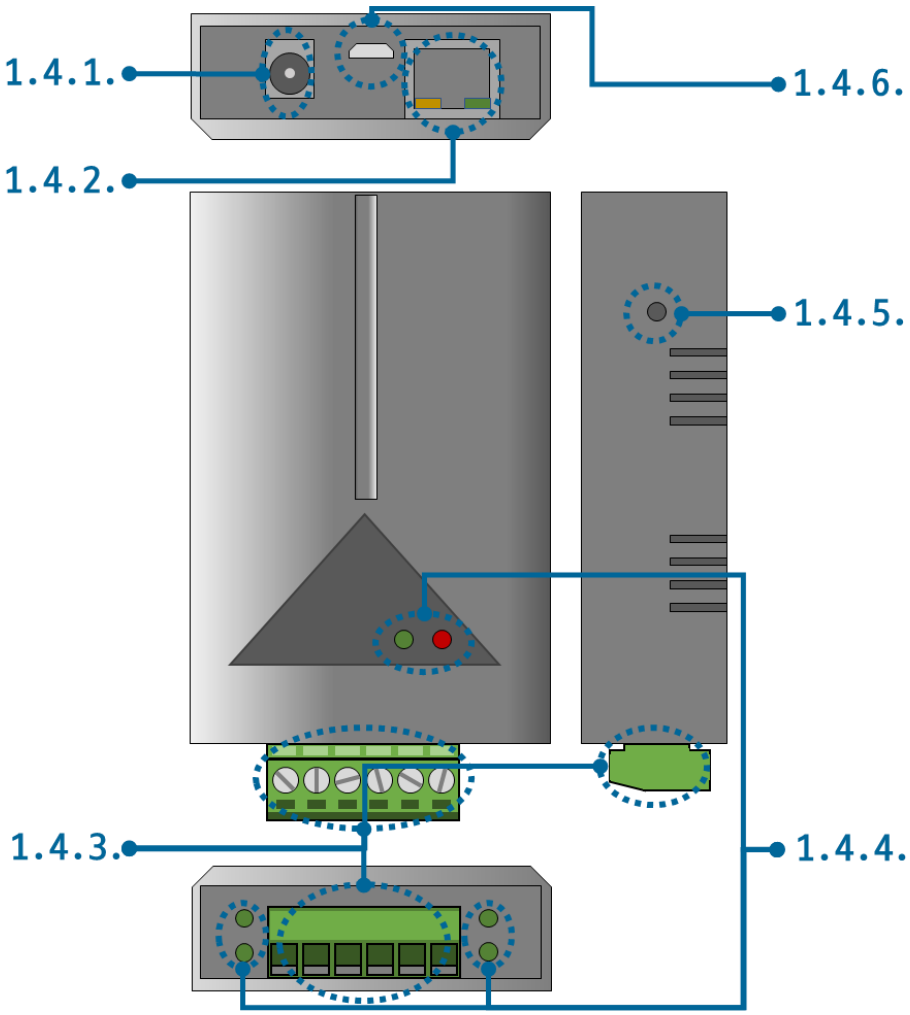


Figure 1-1 Interface

1.4.1 Power

SIG-5550 requires DC5V(±0.5V) power supply whose specification is as follows:

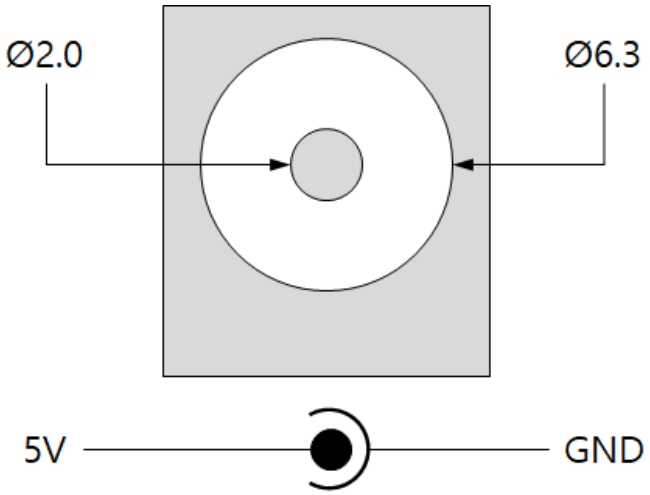
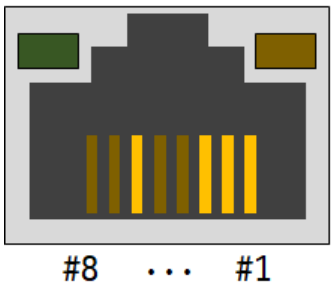


Figure 1-2 Power

1.4.2 Ethernet

SIG-5550 provides 10/100Mbps Ethernet. The pin assignment is as follows:



#1 : Tx + (Out)
#2 : Tx – (Out)
#3 : Rx + (In)
#6 : Rx – (In)

Figure 1-3 Ethernet

1.4.3 Digital Output Port

This port is interfaced with a 3.5mm pitch 6-pole terminal block.

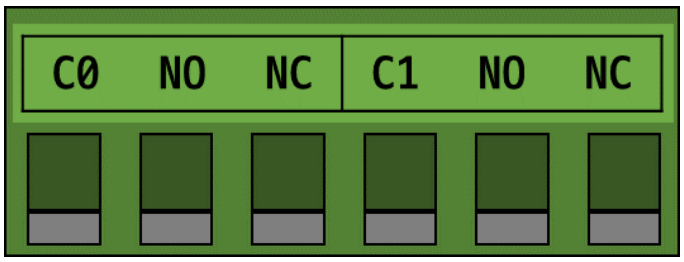


Figure 1-4 Digital output port

- Port Specification

Division		Value
Number of ports		2
Max. Allowed Current at DC 30V	Normal Open	5A
	Normal Close	1A

Table 1-2 Port Specification

☞ *The port specifications are for resistive loads. It is recommended to design about 10 ~ 20% of the maximum allowable current for capacitive loads such as SMPS and inductive loads such as motors.*

- Port Operation

Division		NO Operation	NC Operation
Port 0	OFF	NOT connected to C0	Connected to C0
	ON	Connected to C0	NOT connected to C0
Port 1	OFF	NOT connected to C1	Connected to C1
	ON	Connected to C1	NOT connected to C1

Table 1-3 Port Operation

1.4.4 LED

SIG-5550 provides 8 LEDs.

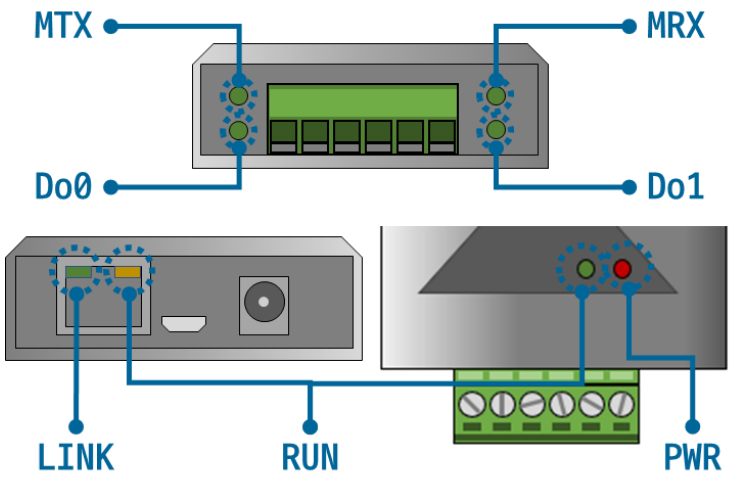


Figure 1-5 4 LED

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 a TCP connection is NOT established: MTX & MRX

When sending data to the TCP: MTX

When receiving data from the TCP: MRX

When the output port is OFF: Do0 & Do1

When the output port is ON: Do0 & Do1

1.4.5 Function Button

This button is used to implement a factory reset.

1.4.6 Setup Port

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

2 Preparation

2.1 Installing the Setting Tool

You need a 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-5550
Password	sig-5550

Table 2-1 The default values of ID and password

☞ *If the product is connected via a LAN cable and the password is set to the default value, spFinder automatically handles the login process.*

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.

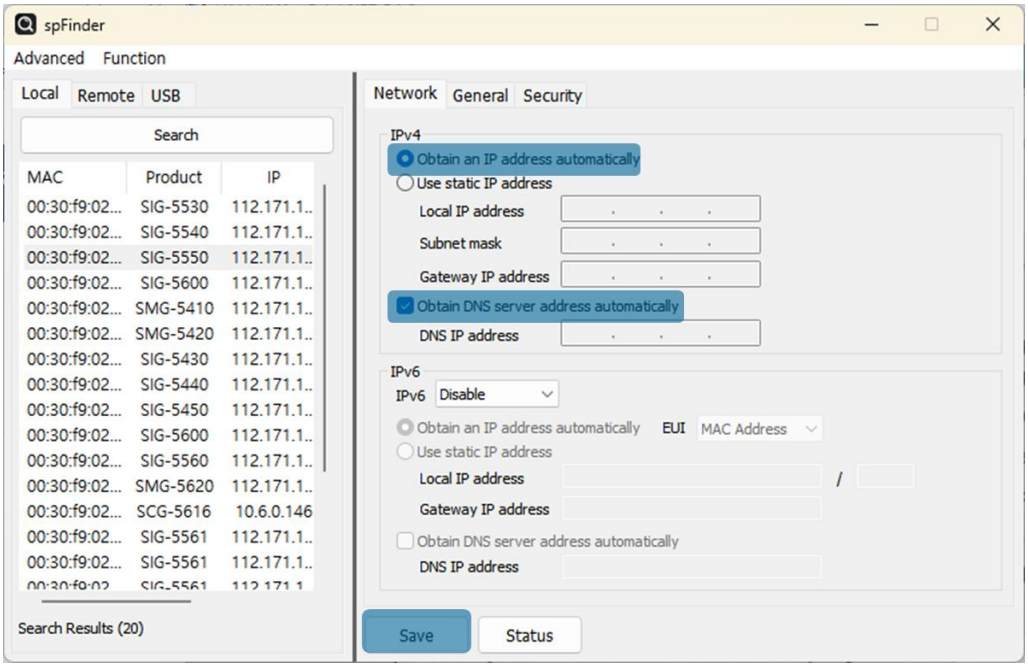


Figure 3-1 Obtain an IP address automatically

- 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.

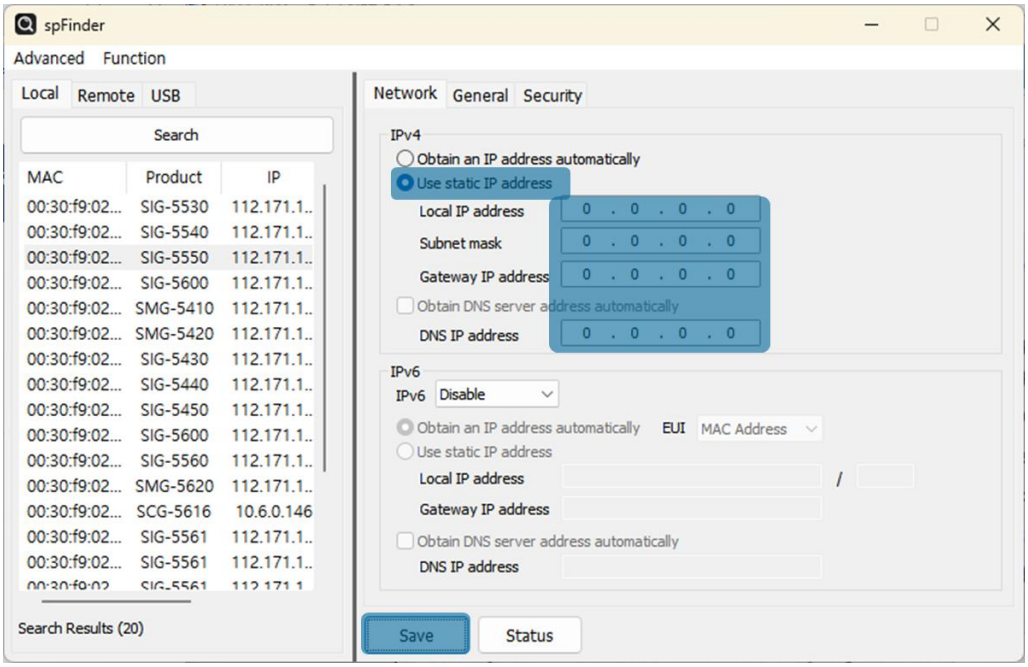


Figure 3-2 Use a static IP address

- 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 General

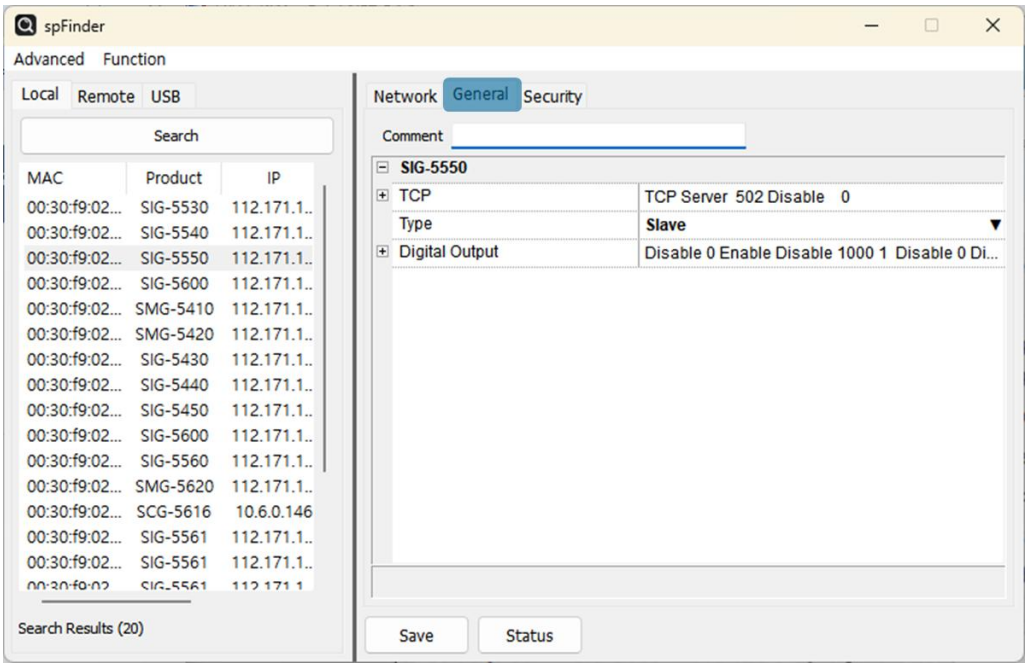


Figure 3-3 General

3.2.1 Comment

This setting is for storing the product description. The maximum setting size of this item is 32 bytes.

3.2.2 TCP

- Connection Mode

  This item selects the TCP connection method. You can choose between TCP Server and TCP Client. The default is TCP Server.

- Peer Address

  This item is to enter an IP address or a hostname of the host to connect to. It is valid only when the Connection Mode is set to TCP Client.

- Port

  This item is to set the port number for the TCP connection. It can be set between 0 and 65535. The default is 502.

- Multiple Connection

  This item enables multiple TCP connections. When this item is set to Disable, only one TCP session (TCP0) can be used. If this item is set to Enable, the rest of TCP sessions (TCP1 to 3) are activated. It means you can use 4 sessions at the same time.

- Connection Timeout (Unit: sec)

  This item is to set a timeout for terminating a TCP connection. If there is no valid Modbus/TCP data communication during the time set in this item, the TCP connection is terminated. The unit is second and can be set between 0 and 3600. Default value is 0.

3.2.3 Modbus

- Type

  This item is to set the Modbus type. Set it to Slave when using this product with an HMI program including ModMap. It can be set to Master only when it is used an Internet Switch. The default value is Slave.

3.2.4 Digital Output

- Fail Safe Mode

  This item is to set whether to enable the Fail-Safe function. If you enable the Fail-Safe function to a specific output port, the state of the port is initialized when the TCP connection with the counterpart is lost. If there are multiple sessions connected, Fail Safe Mode is run only if all sessions are disconnected.

- Delay (Unit: ms)

  This item is to set the output delay time. When the product receives an output control frame from the master, it delays the output by the time set in this item. The setting unit is milliseconds. The range is 0 to 30000 and the default value is 0.

- Pulse Mode

  This item selects whether to use the pulse output mode. If this value is set to Enable, output in the form of a pulse or a pulse train is available.

- Pulse Mode: Emergency Off

  This item allows status changes for output ports that are currently generating pulses. When set to Enable, status changes for output ports during pulse output are permitted. Therefore, if the pulse control register value of a digital output port currently generating a pulse is written as 0, the pulse output of that port is immediately stopped, and its status is changed to off. The default value of this item is Disable, in which case the status of an output port generating a pulse cannot be changed manually until the pulse output is completely finished.

- Pulse: Width (Unit: ms)

  This item is to set the time to output ON signal in pulse output mode. The setting unit is milliseconds. The range is 100 to 30,000 and the default value is 1,000.

- Pulse Mode: Repeat Count

  This item sets the number of pulses to be output in pulse output mode. The range is 1 to 32 and the default value is 1.

- Pulse: Interval (Unit: ms)

  This item is to set the time interval between two pulse signals when the Number is set to a value more than 2. The setting unit is milliseconds. The range is 100 to 30,000 and the default value is 1,000.

3.3 Security

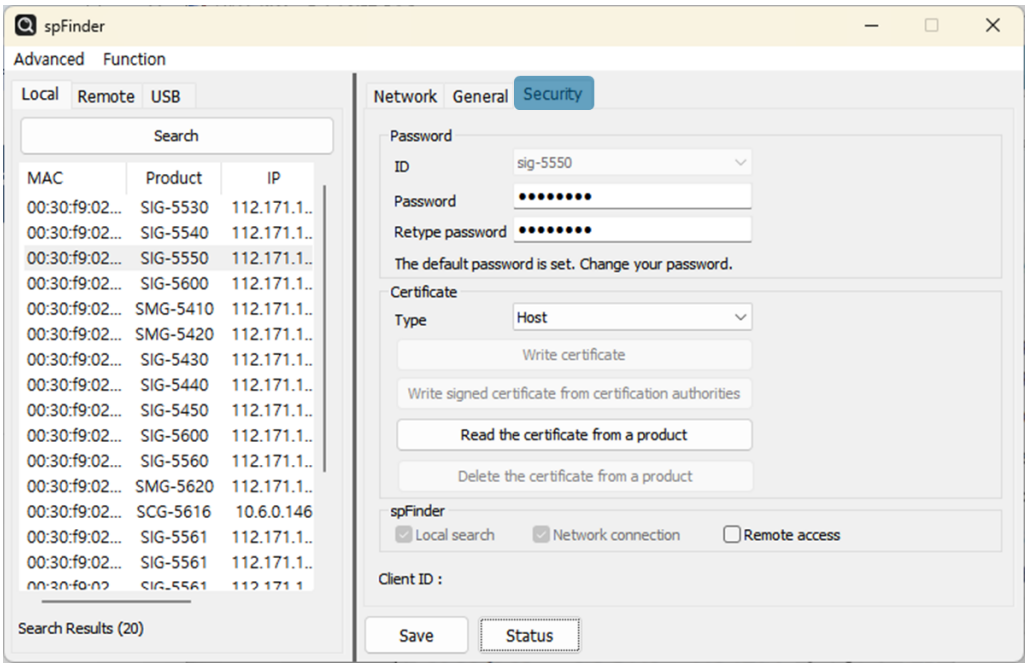


Figure 3-4 Security

3.3.1 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 [Confirm password].
- Click the [Save] button.

3.3.2 Certificate

This is NOT available for this product.

3.3.3 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 up 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 up only when the product is connected via USB.

- Remote access

  If this item is checked, the product can be connected from the remote network. The port number of remote access for spFinder is TCP 57457. For security, this item is unchecked by default.

3.3.4 Client ID

This is NOT available for this product.

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 about your product.

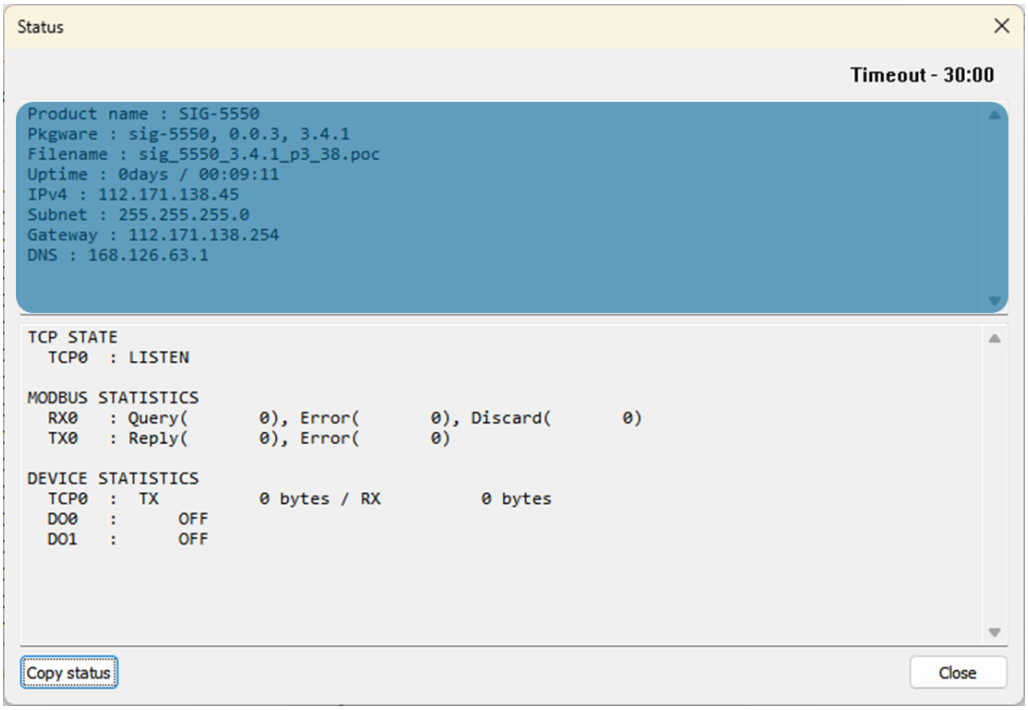


Figure 4-1 Product Information Window

- 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

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.

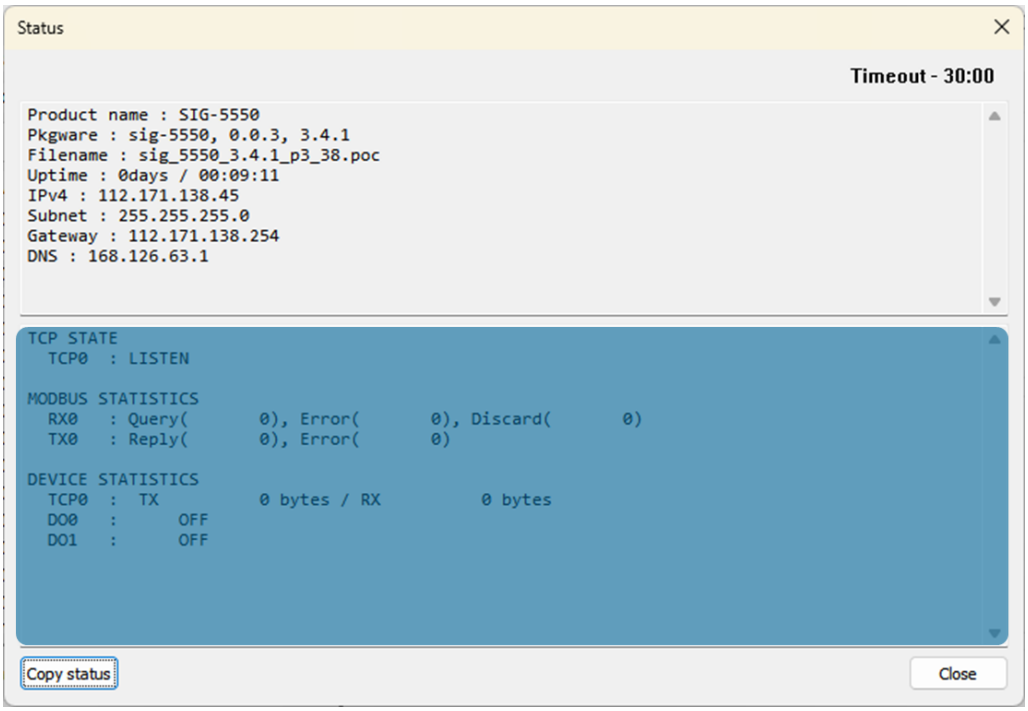


Figure 4-2 Communication Status Window

- TCP STATE

Status	Description
LISTEN	Listen
CLOSED	Disconnected
CONNECTED	Connected (IP and port of the connected host will be shown)
CONNECTING	Connecting
DISCONNECTING	Disconnecting

Table 4-2 TCP STATE

- MODBUS STATISTICS

Item	Description
RX0~3	Statistics of incoming data from TCP
TX0~3	Statistics of outgoing data to TCP
Query	The number of query frames sent/received by the master
Error	The number of invalid frames among sent/received Modbus frames
Discard	The number of frames discarded due to protocol mismatch
Reply	The number of response frames sent/received by the slave

Table 4-3 MODBUS STATISTICS

- DEVICE STATISTICS

Item	Description
TCP0~3	The byte count of TCP data: TX, RX
TX	The byte count of outgoing TCP data
RX	The byte count of incoming TCP data
Do0~1	Current status of each output port

Table 4-4 DEVICE STATISTICS

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.

4.2.1 Online Upgrade

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

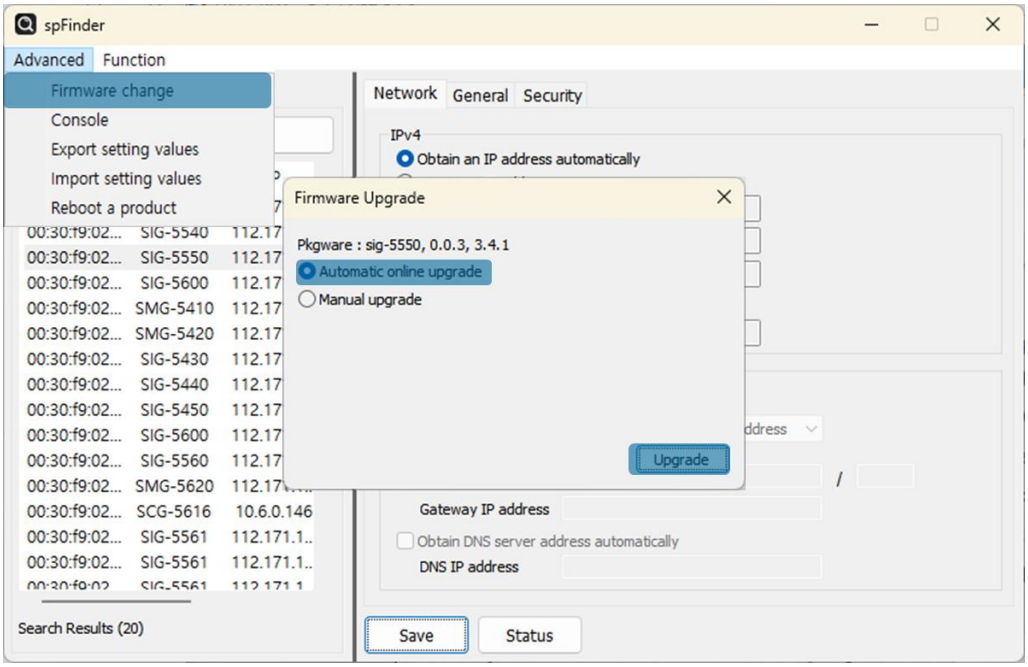


Figure 4-3 Online Upgrade

- 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

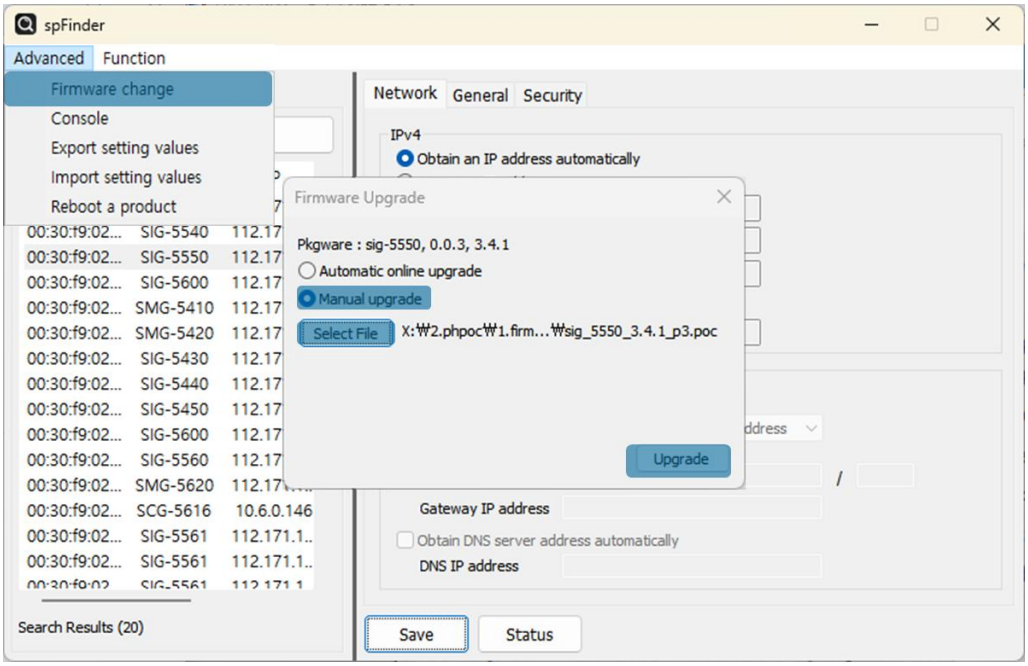


Figure 4-4 Manual Upgrade

- 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 your PC
- Click [Upgrade] button.

4.3 Console

The console function analyzes and displays the Modbus frames sent and received by the product.

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.

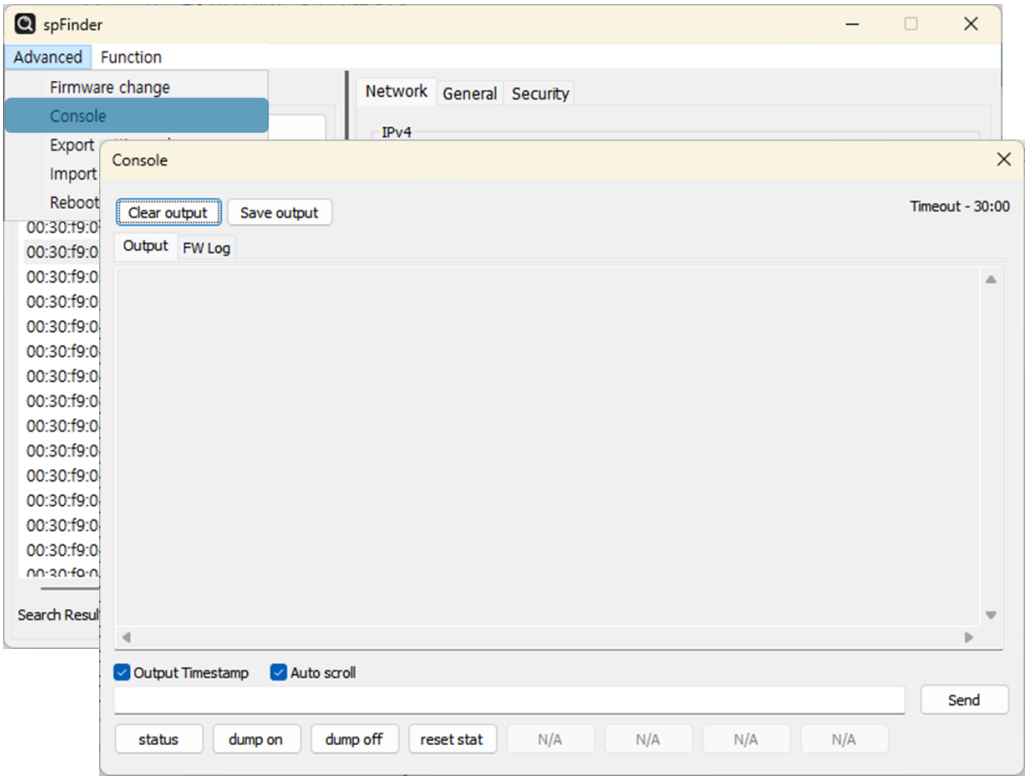


Figure 4-5 Console

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

- dump on

  Pressing this button starts printing communication data out on the network to the Output tab

- dump off

  Pressing this button stops printing communication data out on the network to the Output tab

- reset stat

  Press this button to reset all the communication status information statistics of the product.

4.3.2 FW Log Tab

This tab displays a 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 all setting values of the product as a file except for the password. The [Import setting values] menu loads setting values from a file which is saved by the [Export setting values] menu. Note that you need to click the [Save] button to apply the setting to your product. Find these functions on the [Advanced] menu.

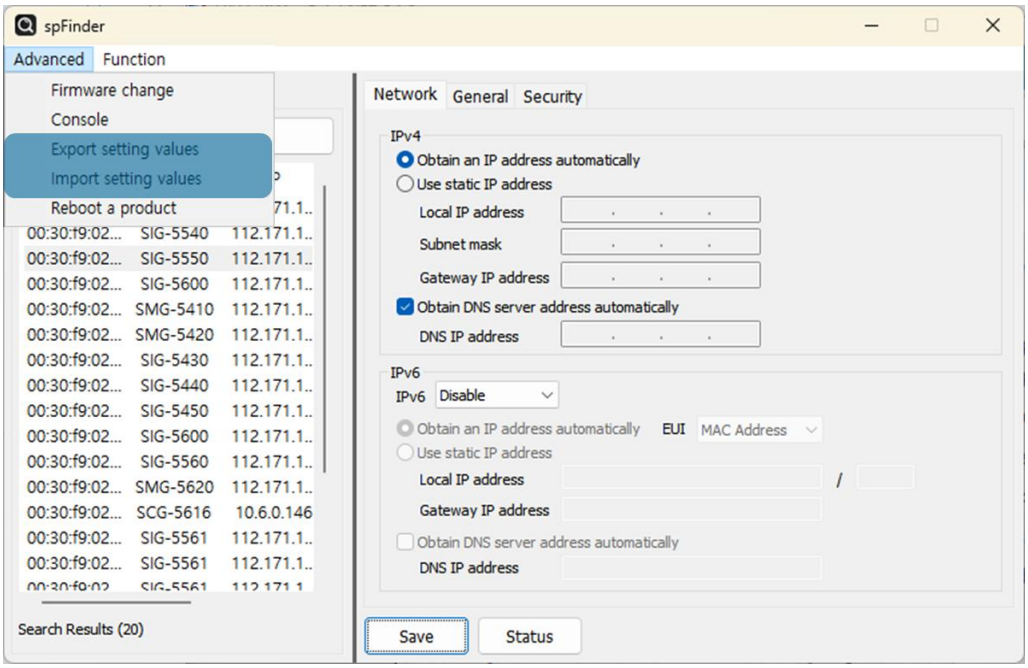


Figure 4-6 Export/Import Setting Values

4.5 Reboot a Product

This function is for rebooting products.

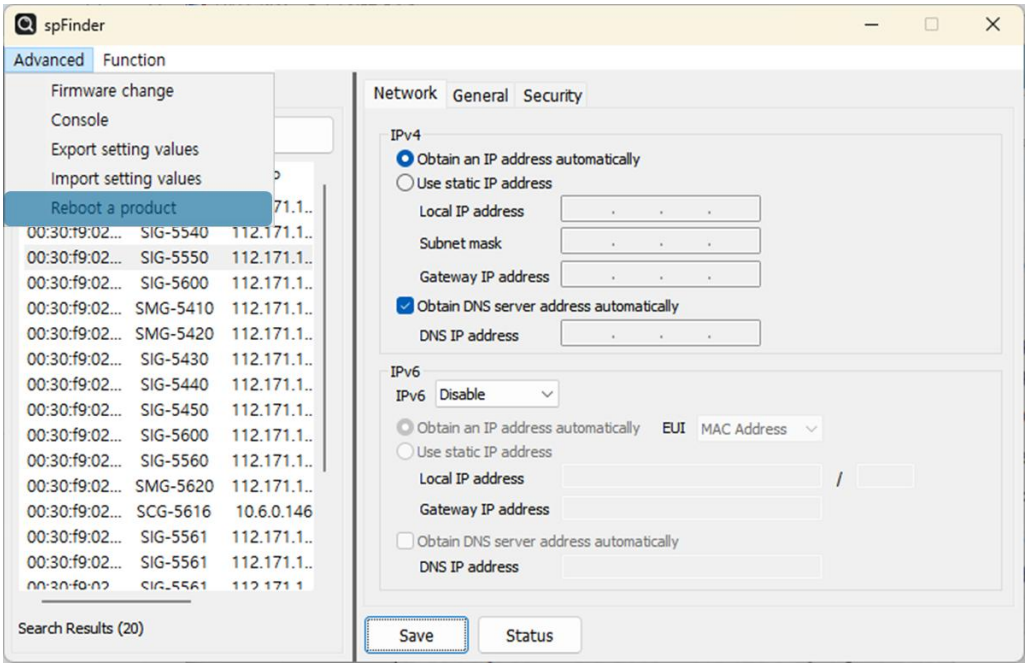


Figure 4-7 Reboot a Product

4.6 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.

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

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

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

5 Register Map

5.1 Read/Write

5.1.1 Digital Output Control Register

If the bit corresponding to each port of this register is set to 1, the status of the output port is turned ON. Conversely, if the bit is set to 0, the status of the output port is turned OFF. This register is only allowed to write when the port's Pulse Mode is set to Disable.

Division	Address		Bit Count	Type	Function Code	HMI Addressing Example
	decimal	Hex.				
Port 0	0	0x00	1	Boolean	01, 05 or 15	00001
Port 1	1	0x01	1	Boolean	01, 05 or 15	00002

Table 5-1 Digital Output Control Register

5.1.2 Digital Output Pulse Control Register

If the bit corresponding to each port of this register is set to 1, pulses are output. When the pulse output ends, the corresponding bit is automatically set to 0. This register is allowed to write only when the port's Pulse Mode is set to Enable.

Division	Address		Bit Count	Type	Function Code	HMI Addressing Example
	decimal	Hex.				
Port 0	80	0x50	1	Boolean	01, 05 or 15	00081
Port 1	81	0x51	1	Boolean	01, 05 or 15	00082

Table 5-2 Digital Output Pulse Control Register

5.1.3 Sending Basic Notification Enable Register

This register enables sending basic notification. The basic notification items include digital output values and digital output pulse values. When the bit corresponding to each session is set to 1, a notification is sent to that session whenever any of the basic notification item values change.

Division	Address		Bit Count	Type	Function Code	HMI Addressing Example
	decimal	Hex.				
Port 0	1200	0x4B0	1	Boolean	01, 05	01201
Port 1	1201	0x4B1	1	Boolean	01, 05	01202
Port 2	1202	0x4B2	1	Boolean	01, 05	01203
Port 3	1203	0x4B3	1	Boolean	01, 05	01204

Table 5-3 Sending Basic Notification Enable Register

5.2 Read Only

5.2.1 Device Information Register

Division	Address		Word Count	Type	Function Code	HMI Addressing Example
	decimal	Hex.				
Vendor Name	400	0x190	7	ASCII	03	40401
Product Code	407	0x197	4	ASCII	03	40408
Version	411	0x19B	5	ASCII	03	40412
Comment	416	0x1A0	16	ASCII	03	40417
Uptime	432	0x1B0	10	ASCII	03	40433
MAC Address	442	0x1BA	9	ASCII	03	40443
IP Address	451	0x1C3	8	ASCII	03	40452
DO Mode	465	0x1D1	4	Integer	03	40466
DO Port Number	475	0x1DB	1	Integer	03	40476

Table 5-4 Device Information Register

☞ *All data read with function code 03 from the device information register has its byte order reversed for each word unit.*

- Vendor Name
- Product Code
- Version: This is the software version of the product
- Comment: This is a comment on the product. This value can be set via spFinder.
- Uptime: This is an uptime of the product. This value is recorded in the form of “day / hour:minute:second”.
- MAC Address
- IP Address
- DO Mode: This indicates the digital output mode setting information. It is set to 1 when pulse mode is enabled and 0 otherwise. The most significant byte corresponds to output port 0.
- DO Port Number: This indicates the information on the number of digital output ports.

6 Technical Support and Warranty

6.1 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

6.2 Warranty

6.2.1 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.

6.2.2 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.

7 Precaution and Exemption from Liability

7.1 Precaution

- Sollae Systems is not responsible for product failures occurring due to user's alternation 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.

7.2 Exemption from Liability

7.2.1 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-5550 even if Sollae Systems Co., Ltd. or its distributors have been informed of such damages.

The SIG-5550 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-5550 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-5550 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-5550.

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-5550 including accompanying written material, hardware and firmware.

7.2.2 French version

- Documentation

La documentation du boîtier SIG-5550 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.

- Conditions d'utilisations et limite de responsabilité

En aucun cas Sollae Systems Co., Ltd. ou un de ses distributeurs ne pourra être tenu responsable de dommages quels qu'ils soient (intégrant, mais sans limitation, les dommages pour perte de bénéfice commercial, interruption d'exploitation commerciale, perte d'informations et de données à caractère commercial ou de toute autre perte financière) provenant de l'utilisation ou de l'incapacité à pouvoir utiliser le boîtier SIG-5550, même si Sollae Systems Co., Ltd. ou un de ses distributeurs a été informé de la possibilité de tels dommages.

Le boîtier SIG-5550 est exclusivement prévu pour un usage en intérieur, dans un environnement sec et non poussiéreux. Le boîtier SIG-5550 n'est pas prévu, ni autorisé pour être utilisé en extérieur, ni de façon embarquée dans des engins mobiles de quelque nature que ce soit (voiture, camion, train, avion, etc…), ni en milieu explosif, ni dans des enceintes nucléaires, ni dans des ascenseurs, ni dans des aéroports, ni dans des enceintes hospitaliers, ni pour des applications à caractère médical, ni dans des dispositifs de détection et d'alerte anti-intrusion, ni dans des dispositifs de détection et d'alerte anti-incendie, ni dans des dispositifs d'alarme GTC, ni pour des applications militaires.

De même, le boîtier SIG-5550 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-5550 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-5550 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-5550 sans que la responsabilité de Sollae Systems Co., Ltd. et de ses distributeurs ne puissent être mise en cause, ni que le boîtier SIG-5550 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-5550 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-5550 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.

8 Revision History

Date	Version	Description	Author
29.10.2025.	1.0	1. Created	Roy Lee