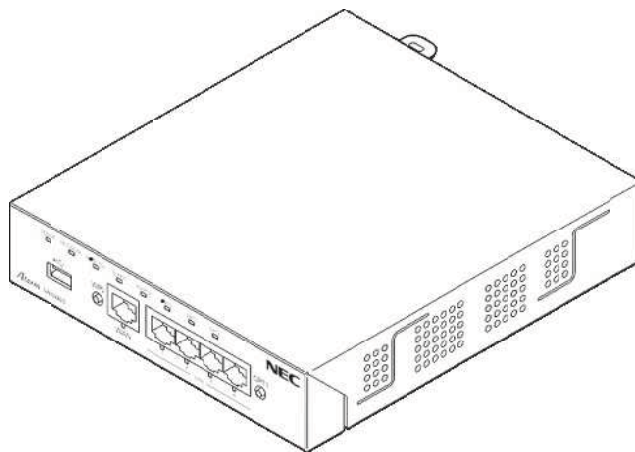


NEC

Aterm® SA3500G Aterm Biz Series
Instruction Manual ZA-SA3500G



- Please read this document before using this product.
- Keep this Instruction Manual for future reference.

Technical standards certified product

Contents

Contents	1
FCC Regulatory Statement	2
CANADA Regulatory Statement	4
License for maintenance upgrade function	7
License concerning the Security scan function	8
Safety Instructions.....	9
Preventing damage to this product	17
1. Precaution for Data and Security	19
2. Security scan functions.....	21
3. Package Contents	22
4. Part Names and Functions	24
5. Installation space.....	29
6. Product installation	32
7. Network Setup	35
8. Initial Configuration	36
9. Firmware Update	41
10. Initialization	42
11. Securing the USB in place.....	44
12. Product Specifications.....	46
13. Software License Agreement.....	47
14. Contact Information	49

Bluetooth is a registered trademark of Bluetooth SIG, Inc.

© NEC Platforms, Ltd. 2016

Duplication, revision, and distribution of copies without permission from NEC Platforms, Ltd. are prohibited.

FCC Regulatory Statement

Federal Communication Commission Interference Statement

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

FCC Caution: Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

For product available in the USA/Canada market, only channel 1~11 can be operated. Selection of other channels is not possible.

This device and its antenna(s) must not be co-located or operating in conjunction with any other antenna or transmitter except in accordance with FCC multi-transmitter product procedures.

This radio transmitter FCCID: 2AA5WSA3500G has been approved by FCC to operate with the antenna types listed below with the maximum permissible gain and required antenna impedance for each antenna type indicated. Antenna types not included in this list, having a gain greater than the maximum gain indicated for that type, are strictly prohibited for use with this device.

Antenna List

No.	Manufacturer	Part No.	Antenna TYPE	Peak Gain
1	Master Wave	98241PSAX002	Omni antenna	3.57dBi for 2.4GHz

Note: The antenna connector is Reverse SMA type.

IMPORTANT NOTE

FCC Radiation Exposure Statement

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20 cm between the radiator & your body.

This radio transmitter IC: 11813A-SA3500G and FCC ID: 2AA5WSA3500G has been approved by Industry Canada to operate with the antenna types listed below with the maximum permissible gain and required antenna impedance for each antenna type indicated. Antenna types not included in this list, having a gain greater than the maximum gain indicated for that type, are strictly prohibited for use with this device.

Cet émetteur radio IC: 11813A-SA3500G et FCC ID: 2AA5WSA3500G a été approuvé par Industrie Canada pour fonctionner avec les types d'antennes énumérés ci-dessous avec le gain maximal admissible et impédance d'antenne requise pour chaque type d'antenne indiqué. Types d'antennes n'est pas inclus dans cette liste, ayant un gain supérieur au gain maximal indiqué pour ce type, sont strictement interdits pour une utilisation avec cet appareil.

Antenna List

No.	Manufacturer	Part No.	Antenna Type	Peak Gain
1	Master Wave	98241PSAX002 (External)	Omni antenna	3.57dBi for 2.4GHz

Note: The antenna connector is Reverse SMA type.

CANADA Regulatory Statement

ICES-003 Regulatory Statements

This Class B digital apparatus complies with Canadian ICES-003.

Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada.

Canada, Industry Canada (IC) Notices

This Class B digital apparatus complies with Canadian ICES-003 and RSS-247. Operation is subject to the following two conditions:

- (1) this device may not cause interference, and
- (2) this device must accept any interference, including interference that may cause undesired operation of the device.

Canada, avis d' Industry Canada (IC)

Cet appareil numérique de classe B est conforme aux normes canadiennes ICES-003 et RSS-247. Son fonctionnement est soumis aux deux conditions suivantes :

- (1) cet appareil ne doit pas causer d' interférence et
- (2) cet appareil doit accepter toute interférence, notamment les interférences qui peuvent affecter son fonctionnement

Radio Frequency (RF) Exposure Information

The radiated output power of the Wireless Device is below the Industry Canada (IC) radio frequency exposure limits. The Wireless Device should be used in such a manner such that the potential for human contact during normal operation is minimized. This device has also been evaluated and shown compliant with the IC RF Exposure limits under mobile exposure conditions. (antennas are greater than 20cm from a person' s body).

Informations concernant l' exposition aux fréquences radio (RF) La puissance de sortie émise par l' appareil de sans fil est inférieure à la limite d' exposition aux fréquences radio d' Industry Canada (IC). Utilisez l' appareil de sans fil de façon à minimiser les contacts humains lors du fonctionnement normal. Ce périphérique a également été évalué et démontré conforme aux limites d' exposition aux RF d' IC dans des conditions d' exposition à des appareils mobiles (antennes sont supérieures à 20 cm à partir du corps d' une personne).

Limitations and disclaimers

- (1) All rights reserved. No part of this manual may be copied or reproduced without prior permission.
- (2) Contents of this manual may change without notice.
- (3) We take every possible precaution to ensure the accuracy of this manual, but if anything is unclear or erroneous in the content, please contact us.
- (4) We assume no responsibility whatsoever for pure economic losses such as damage incurred from miscommunication resulting from external causes such as malfunction of this product, user misoperation, natural disasters, faults, and power cuts.
- (5) Please note that we shall not be responsible for any damage resulting from security problems if no security measures are in place or the wireless LAN specification is insecure.
- (6) If this product is damaged accidentally through inappropriate use or unpredictable circumstances (e.g., thunderstorms or electric current leakage), this product may not operate properly. Please read this document and follow the instructions carefully.
- (7) For ease of use of this product, we recommend connections on the 1000BASE-T, 1000 Mbps or the 100BASE-TX, 100 Mbps standard.
- (8) This product is a product to reduce the risk of threats on the network, but it is not guaranteed to remove the threat completely upon installation.
- (9) Internet connection is necessary to use the security scan functions of this product.
- (10) When the license agreement period is exceeded, this product will suspend all security scan functions. Therefore, it cannot connect to the Internet.

Notes on wireless LAN

- The standard values of wireless LAN are the maximum theoretical values when communication is carried out with other devices with the same configuration as this product. The standard values may not indicate the actual data transfer rate.
- The interconnectivity of this product with third-party products is not guaranteed.
- Wireless LAN transmission distance and transmission speed varies greatly depending on objects in the surrounding environment such as walls and furniture.

- This radio transmitter IC: 11813A-SA3500G has been approved by Industry Canada to operate with the antenna types listed below with the maximum permissible gain and required antenna impedance for each antenna type indicated. Antenna types not included in this list, having a gain greater than the maximum gain indicated for that type, are strictly prohibited for use with this device.
- Cet émetteur radio IC: 11813A-SA3500G a été approuvé par Industrie Canada pour fonctionner avec les types d'antennes énumérés ci-dessous avec le gain maximal admissible et impédance d'antenne requise pour chaque type d'antenne indiqué. Types d'antennes n'est pas inclus dans cette liste, ayant un gain supérieur au gain maximal indiqué pour ce type, sont strictement interdits pour une utilisation avec cet appareil.

Antenna List

No.	Manufacturer	Part No.	Antenna TYPE	Peak Gain
1	Master Wave	98241PSAX002	Omni antenna	3.57dBi for 2.4GHz

License for maintenance upgrade function

Maintenance version update function automatically updates through the Internet when there is an important change in the software of this product.

"Important Update" means it indicates that NEC Platforms, Ltd. (Hereafter assumed as "Our company") will provide the software version upgrade of the functionality (For example, software update to improve security failure, etc.) of this product when it is determined to be required. When there is an important update, you will be guided in the "Important News" of our home page (<https://www.necplatforms.co.jp/>).

Since this product reboots when maintenance version upgrade of the functionalities begins to operate while connecting, connected communication is cut until then. In addition, in the case of metered billing contracts, communication cost may occur due to software downloads, speed limit occurs due to packet transmission excess amount.

In this function, among the information with regards to this product, we notify the server that we operate for the minimum required equipment information and network information in order for this function to operate. These information are used only for the implementation of this function, and the improvement and enhancement of this product and function. Moreover, appropriate management of these information is performed in accordance with our company's handling procedures. When we use this function in cooperation with a third party, appropriate management is implemented similar to our handling procedure.

The initial value of this function is enabled. When you cannot get the license, please disable the function according to the following procedure. However, when you disable this function, update is not done automatically even if there are critical software updates that improve security failure. When you keep using the software before it is improved, there is a possibility that the danger done by an illegal access from a malicious third party may remain.

<How to stop>

- (1) Start the Web setup. (p35)
- (2) Click "Maintenance" on the Top page.
- (3) Select "Maintenance" then "Maintenance".
- (4) Remove the check on [Enable] in "Maintenance Update".
- (5) Click "Apply".

License concerning the Security scan function

Please confirm it before using this product.

When this product is used, it is assumed that you have the license for this function.

To detect the threat, the security scan function is processed through the Internet as follows.

- Automatic update of information file (virus information etc.) used by security scan function.
- Confirmation of URL that access the Internet.

In the case of metered billing contracts, communication cost may occur due to the downloading of the information file, and speed limit occurs due to packet transmission excess amount.

In this function, among the information on this product, the minimum device information necessary in order for this function to operate is notified to the server. These information is used only for the implementation of this function and it is not used for any other purpose. Moreover, these information follows the handling procedure of our company, and appropriate management is performed. We, in cooperation with a third party, execute appropriate management similar to our handling procedures on this function.

Safety Instructions

Please read these Safety Instructions carefully before using this product. These Safety Instructions show items that must be followed to prevent danger to any person and damage to property. Alert symbols below are important to fully understand these Safety Instructions.

Alert symbols in this instruction manual



Warning : Indicates a hazardous situation which could result in death or serious injury.



Caution : Indicates a situation which could result in minor injury, as well as damage to your product and/or your property.

Other alert symbols

■ Warning signs



General
warning



Explosive
material



Flammable
material



Electricity



Hot surface

■ Prohibition signs



General
Prohibition



No disassembly



No water



No wet hands



No open flame

■ Mandatory action signs



Remove plug from outlet



Warning

Power supply

- Do not use household power voltages other than those displayed on the AC power cord. Doing so may cause fire or electric shock or malfunction. When plugging this product in a wall outlet where other products are already plugged in, be careful that you do not exceed the maximum current rating of the outlet. Otherwise, a fire, electric shock or malfunction may occur.
- Do not scratch, damage, or modify the power cord. Also, do not forcibly bend, pull, twist or tie the cord. Otherwise, a fire or electric shock may occur. If the power cord is excessively pressed or heated up, the cord may be damaged and a fire and electric shock may occur.
- Do not use an overloaded multi-plug adaptor. Otherwise, the multi-plug adaptor may heat up and be degraded, and then a fire may occur.
- Use only the AC adaptor and power cord supplied for this product. Do not use the AC adaptor and power cord with other products. Otherwise, a fire, electric shock or malfunction may occur.
- The AC adaptor and power cord supplied for this product must be used together. Never combine the AC adaptor of a different product with the power cord. Otherwise, a fire, electric shock or malfunction may occur.
- Do not put anything on the AC adaptor or cover it with cloth. Otherwise, the adaptor may heat up, the case and power cord may melt, and then a fire or electric shock may occur.



- Do not place the AC adaptor in a poorly ventilated or confined area such as in storage rack or behind a bookshelf. The AC adaptor may overheat and cause a fire or damage. Also, place the AC adaptor near the power outlet and ensure that you can easily plug in and remove the AC power cord.
- The AC adaptor of this product is for indoor use only. Do not use the AC adaptor outdoors. Otherwise, this product gets rainwater, and electric shock or malfunction may occur.
- Make sure that the AC adaptor is not hanging in the air when installing it. Failing to do so can create a gap between the power plug and the outlet, and dust accumulation can cause fire.



In these cases

- Do not use this product if it gives off smoke or has an abnormal odor. Otherwise, a fire or electric shock may occur. Remove the AC power cord from the outlet immediately. Please contact us after making sure that this product stops giving off smoke. Never try to repair this product on your own.
- Do not wet this product or expose it to water or seawater. If water enters inside this product or if this product gets wet, remove the AC power cord from the outlet immediately and contact us. If you continue using this product without having it repaired, a fire, electric shock or malfunction may occur.



- Do not insert or drop metals or combustible materials into the ventilation slots. If those objects get inside this product, remove the AC power cord from the outlet immediately and contact us. If you continue using this product without having it repaired, a fire, electric shock or malfunction may occur.



- Do not use this product with the power cord damaged, for example, with the core exposed or cut. Otherwise, a fire or electric shock may occur. Remove the AC power cord from the outlet immediately and contact us.



- If this product is dropped or damaged, remove the AC power cord from the outlet immediately and contact us. If you continue to use this product without having it repaired, a fire or electric shock may occur.



- Do not use this product in life-supporting medical devices or in any other system requiring extremely high reliability (trunk-line communications devices, calculation systems, etc.). Otherwise, this may cause death or serious injury, and panic may also occur.



- Do not disassemble or convert this product. Otherwise, a fire, electric shock or malfunction may occur.



- Do not operate or connect this product with wet hands. Otherwise, an electric shock may occur.



- Do not use flammable gases such as an air duster or dust spray inside or around this product. The gases may ignite, causing a fire or explosion.



Other warnings

- Turn off this product in any place where use of a wireless device is prohibited, for example, in an airplane or hospital. Otherwise, it may influence electronics and medical devices, causing an incident.



- Do not place or use this product near high-precision electronics, devices which handle weak signals, or pacemakers, etc. Otherwise, electronics or pacemakers may malfunction. Do not use this product near medical electronics, or in any place where you are prohibited from using this product, for example, in a hospital.



- Do not place this product near vases, pots, cups, cosmetics, vessels with chemicals or water, or near any small metal objects. If a spill occurs or objects get inside, it may cause a fire, electric shock, or malfunction.



- Do not place or use this product in a humid location such as a bathroom or near a water heater or a humidifier. Otherwise, a fire, electric shock or malfunction may occur.



- Please do not use this product in places with high salinity such as coasts, or places that generates hydrogen sulfide such as hot springs. The life span of this product may be shortened.



- During or after using this product, protruding objects such as this product's body and connector may become very hot. In particular, this product is covered with a metal case, please be aware that there is a risk of burns.



Caution

Installation place

- Do not place this product in an area exposed to direct sunlight, or in a very hot place, for example near a heat generating appliance such as a stove or a heater. Otherwise, the internal parts of this product may heat up, and a fire may occur.
- Do not place this product in a place where the temperatures change dramatically, for example near an air conditioner or a heater. Otherwise, the internal parts of this product may be wetted by condensation, and a fire, electric shock or malfunction may occur.
- Use this product in the environment with temperature of 0-40°C and humidity of 10 - 90% without condensation.
- Do not place this product in a location exposed to cooking oil or steam, for example near a cooker. Also, do not place this product in a dusty place. Otherwise, a fire, electric shock or malfunction may occur.
- Do not place this product in an unstable location such as on an unstable table or inclined surface.
Do not place any heavy object on this product. Otherwise, this product may lose balance and collapse, or the heavy object may drop and an injury may occur.



- Do not block the ventilation slots of this product. This product may heat up, and then a fire may occur. Avoid the following.
 - Placing this product in narrow, poorly-ventilated spaces such as storage racks, bookshelves, and boxes.
 - Placing this product on a carpet and a mat.
 - Covering this product with a tablecloth, etc.
- Do not stack this product. Stacking this product may cause a fire because of overheating inside this product. When using in the vertical position, always use the stand provided, and please ensure that there is enough space at either side of this product.
- Do not attach this product to non-vertical walls, ceilings, etc. It may fall due to vibration and cause damage or injury.



Power supply

- When using this product, ensure that the power plug is securely inserted into the outlet. Remove the power plug from the outlet by pulling on the plug. Do not pull the power cord. Otherwise, it may be damaged, and a fire or electric shock may occur.
- Periodically (once every six months) remove dust that has accumulated between the power plug and outlet. Otherwise, a fire may occur.
- Before cleaning this product, remove the AC power cord from the outlet for safety reasons. Otherwise, an electric shock may occur.
- Before moving this product, remove the AC power cord from the outlet and disconnect all cords. Otherwise, the cords may be damaged, and a fire or electric shock may occur.



- If this product will not be used for a long time, remove the AC power cord from the outlet for safety reasons.
- When or after using this product, the AC adaptor can reach high temperatures. Be careful of burn injuries.



Restrictions

- During thunderstorms, do not touch the power cord or connect to any surrounding device. Otherwise, an electric shock caused by a thunderbolt may occur.
- Do not climb on this product. Especially be cautious if you have small children in your family. It can break and possibly cause injury.



Preventing damage to this product

Follow these instructions to retain performance and prevent malfunction of this product.

Installation place

- Do not place this product in any of the following locations.
 - a place affected by vibration,
 - a place where volatile chemicals are filled or where chemicals are close by,
 - a place affected by magnetism from an electric product, audio/video device, or office automated device, or a place where electromagnetic waves are emitted (microwave ovens, speakers, TV sets, radios, fluorescent lamps, air conditioners, electric cooking equipment, etc.), or
 - a place near a high-frequency noise generating high-frequency sewing machine or welding machine.
- If you use this product near a cordless phone or a radio, you may hear noises. If you use it near a TV set, you may hear noises and the screen may be unclear. Also, you may have poor reception. Keep this product a few meters away from those devices.
- A data communication error may occur if this product and the wireless LAN terminal are very close to each other. Keep this product at least a meter away from other devices.
- If you use this product with the wall mount and leave it installed in the same place for a long period of time, the wallpaper may become discolored (fading).

Restrictions

- Do not drop or hit this product. Otherwise, it may malfunction.
- Do not leave this product in a cold place such as an ice warehouse. Otherwise, this product may operate abnormally.
- Disconnect all cords before moving this product. Otherwise, it may malfunction.
- This product may operate abnormally if the connecting cords are disconnected when it is on, or if the connection is unstable. When this product is on, do not touch the connecting parts.
- Do not turn on this product immediately after you turn it off. Wait at least 10 seconds to restart. It may not turn on if you attempt to turn it back on immediately.

Regular care

- Do not wipe with benzene, paint thinner, alcohol or other chemical agents. It may change the color or shape of this product. If this product is very dirty, soak the cloth in mild detergent and wring well. Wipe off this product with the damp cloth and then dry it with a soft cloth. Never wipe the connector with a damp cloth.
- If water droplets are found on this product, wipe off with a dry cloth.

1. Precaution for Data and Security

For data corruption

- If this product turns off or disconnects during data communication, a communication error may occur and cause data corruption.

Security notes on wireless LAN products

Wireless LAN has the advantage of a LAN connection without the use of Ethernet cables if the device is placed within the reach of radio waves. You can transmit and receive information between devices that use radio waves such as a computer and the wireless LAN access point (base unit). On the other hand, you may encounter the following problems if you do not complete the settings related to security because the radio waves reach beyond all obstacles such as walls if within a certain range.

- **Interception of information:**
Some malicious computer users may intercept radio waves intentionally to discover your IDs, passwords, credit card numbers, e-mails, etc.
- **Unauthorized intrusion:**
Some malicious computer users may access personal or office networks to gain personal or confidential information and send out false data. Also, they may intercept communication content, rewrite it, and then send it out. Furthermore, they may send out computer viruses to destroy data and systems.

Wireless LAN products already have security systems so there is a low probability that any of the above problems will occur if you use this product with these settings.

You should be fully aware of problems which may happen to you if you do not do your security configuration. We recommend that you use this product only after making the security setting you judged to be necessary based on a proper understanding of the problems which may occur if security settings are not configured.

We, NEC Platforms, Ltd., do not take responsibility for any damage caused by a security problem occurring because of a lack of a security measure or an unavoidable issue with the wireless LAN specifications.

2. Security scan functions

This product offers the following security scan functions.

- **Anti-virus**
Programs which include virus and dangerous codes are blocked. Web browsing, receiving emails, and the communication of other applications are observed, and checks whether a virus exists in a downloaded file.
- **Intrusion Prevention**
Security measure level is improved by sensing and defending the network, such as company Intranet, against unauthorized intrusion and attack.
- **Web Guard**
Access to dangerous sites, such as sites that are infected with virus by fishing site and browsing, is guarded by accumulated signatures.
- **URL Filtering**
Specifying the category of Web sites is set beforehand to limit the browsing.
As a result, access to a harmful or a non-business related site is blocked.
- **URL Keyword Filtering**
Specific character strings are registered beforehand. During Web browsing, URL access to pages that matches the registered character string is blocked.
- **Application Guard**
The use of applications wherein an unspecified number of individuals can exchange information like file exchange software and video sharing application, messenger application, etc. is blocked.

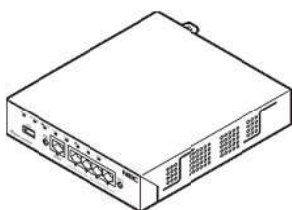
Please refer to Chapter 3.3 of the "Functional Details Manual" for the detailed information on the security scan function.

3. Package Contents

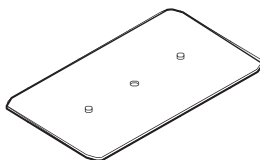
This product package contains the following items.

If some items are missing from the package or if the pages of this document are not in the correct order or missing, contact us from the information on the back of this document for inquiries.

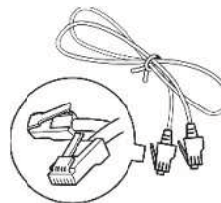
☐ SA3500G



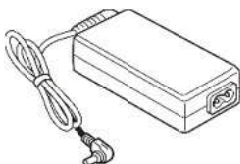
☐ Stand



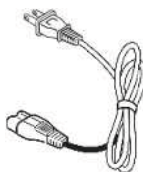
☐ Ethernet cable
(Straight, about 2m)



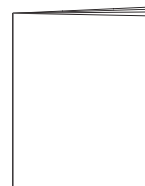
☐ AC adaptor
(Product number: AL1-003651-001)



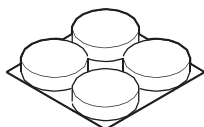
☐ AC power cord
(Product number: AL1-000651-001)



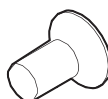
☐ Instruction Manual
(This document)



☐ Rubber feet (4 pieces)



☐ Stand screw (1 piece)

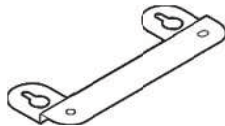


* The product number of AC adaptor and power cord will be changed in the future.

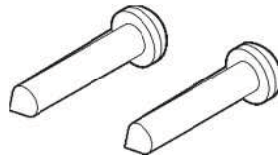
Option

☐ **Wall-mounting kit** (Product number: ZA-SA/MK1)

- **Wall-mounting bracket** (1 piece)



- **Wood screws** (2 pieces)

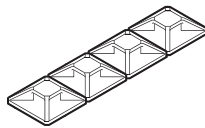


- **Wall-mounting screws** (2 pieces)

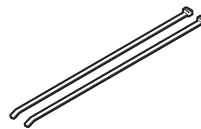


☐ **USB clamp kit** (Product number: ZA-SA/UC1)

- **USB fastening device** (4 pieces)

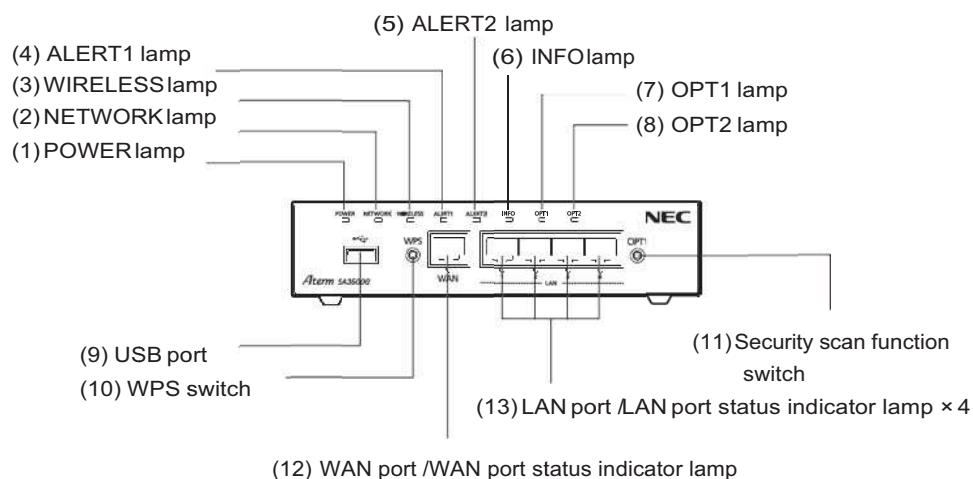


- **USB fastening cable band** (2 pieces)



4. Part Names and Functions

Front side



Lamp indicator

Name	Lamp color	Explanation
(1) POWER lamp	Illuminating in green	Power is on.
	Blinking in orange	Firmware is loading. Do not turn off this product.
	Illuminating in red	Equipment startup has failed.
	Blinking in red (For 5 sec.) → Illuminating in green	Equipment is being restored.
	OFF	Power is off.
(2) NETWORK lamp	Illuminating in green	Network connection is possible (normal).
	Illuminating in red	Network connection failure (IP address of WAN port is not acquired)*.
	OFF	No network connection.
(3) WIRELESS** lamp	Illuminating in green	Wireless LAN communication is enabled.
	Blinking in green (one-shot)	Under transmitting and receiving the data.
	Blinking in orange	Wireless LAN is being set (WPS).
	Blinking in red	Wireless LAN setting (WPS) has failed.
	OFF	Wireless LAN is not in use.


Name	Lamp color	Explanation
(4) ALERT1 lamp	Illuminating in orange.	60 seconds after blinking orange.
	Blinking in orange.	60 seconds after threat is detected.
	OFF	No threat detected.
(5) ALERT2 lamp	Illuminating in green.	Preparing for security scan function.
	Illuminating in orange.	Security scan function activation*** is not done.
	Blinking in orange.	Ongoing security scan function activation.
	Illuminating in red	Security scan function license has expired.
	Blinking in red	30 days until the license expiration of the security scan function is cut.
	OFF	Security scan function activation is done and available.
(6) INFO lamp	Illuminating in orange.	Firmware for a possible upgrade.
	Blinking in orange.	Ongoing firmware upgrade.
	OFF	No firmware for a possible upgrade.
(7) OPT1 lamp	OFF	Unused
(8) OPT2 lamp	OFF	Unused
(12) WAN port state indicator lamp	Illuminating in green	The WAN port link is established.
	Blinking in green	The WAN port is transmitting and receiving data.
	OFF	The WAN port link is not established.
(13) LAN port state indicator lamp x 4	Illuminating in green	The LAN port link is established
	Blinking in green	The LAN port is transmitting and receiving data.
	OFF	The LAN port link is not established.

* For router mode only. (Router mode is scheduled for future support.)

** Wireless LAN function is scheduled for future support.

*** It means Security Scan function activation and the license's start of use.

Port

Name	Display	Explanation
(9) USB port*		Port for connecting USB devices.
(12) WAN port	WAN	Port for connecting broadband modem, etc.
(13) LAN port	LAN	Port for connecting computer, etc. via Ethernet cable.

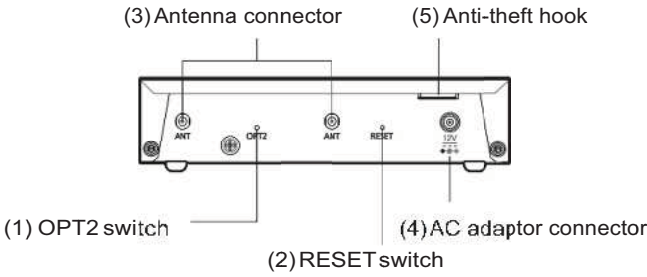
* USB function is scheduled for future support.

Configuration switch

Name	Display	Explanation
(10) WPS switch*	WPS	This switch is used to set the wireless LAN by using the wireless LAN setting (WPS) function.
(11) Security scan function switch	OPT1	When the ALERT1 lamp illuminates orange (threat detection), the threat detection is released. When the ALERT2 lamp illuminates orange (activation is not done), activation is done.

* Wireless LAN function is scheduled for future support.


Back



Configuration switch

Name	Display	Explanation
(1) OPT2 switch	OPT2	This switch is used when firmware is updated.
(2) RESET switch	RESET	This switch is for initialization. (Refer to “10. Initialization”)

Ports and others

Name	Display	Explanation
(3) Antenna connector*	ANT	Separately sold optional external antenna (ANT) is installed in 2 places. Please note that the performance is not demonstrated in the installation of only one place.
(4) AC adaptor connector		Connect the AC adaptor to this jack.
(5) Anti-theft hook	—	Anti-theft key installation hole. This product is protected from theft by installing a commercially available security wire.

- * When the future support of wireless LAN is used, this connector is used to install the optional external antenna (charged) that can widen the communication coverage area.
- ** Depending on the shape of the key, this security wire may not enter the hook. Please note the shape of the key in selecting the security wire.

5. Installation space

This product should be installed and operated with a minimum separation of 7 cm (2.76 inch) from any nearby walls or computers (on all sides except the bottom, or all sides except the wall-mounted side if mounted on a wall.).

Warning

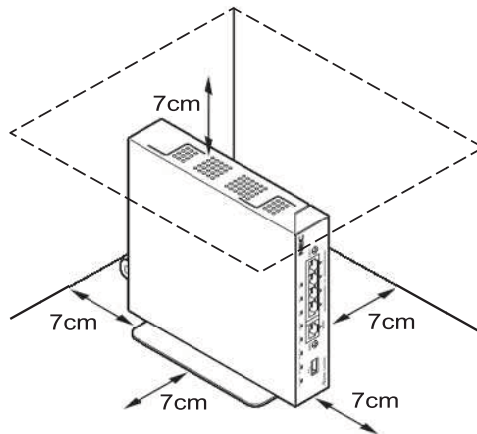
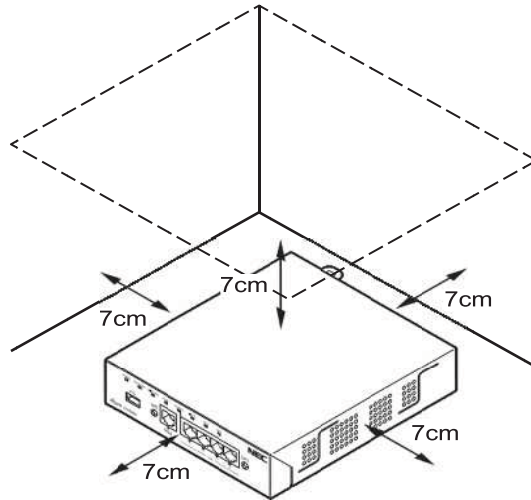
- Please do not drop this product. The fall may cause breakdown, and when it is used just as it is, fire and electric shock may occur. When this product is dropped and damaged, please unplug the AC adapter of this product from the outlet immediately and contact us.

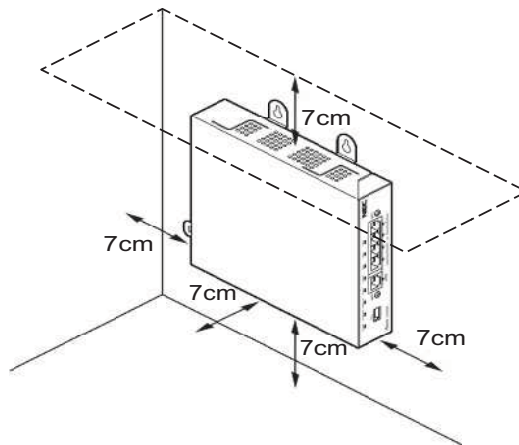
Caution

- Do not install in a place that is subject to strong physical shock or vibration. Also, do not install to non-vertical walls, ceilings, etc. It may fall due to vibration and can cause damage or injury.
- Please do not install this product on walls made up of soft material such as plywood. Install this product in places where you can firmly secure it. If screws come off and fall, it can cause damage and injury.
- Be sure to support the main unit with your hands when performing operations such as connecting cables or operating the switches while mounting on a wall. If unsupported, the product may fall and can cause damage or injury.
- Please do not drop this product. The fall may cause breakdown, and when it is used just as it is, fire and electric shock may occur. When this product is dropped and damaged, please unplug the AC adapter from the outlet immediately and contact us.
- Please do not block the ventilation holes. Blocking the ventilation holes will confine the heat inside and may cause fire.

[Example]



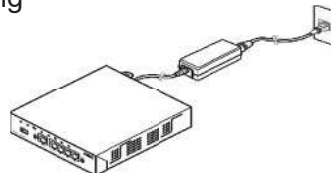




Warning

Please note the following when connecting and installing the AC adapter.

- Use only the AC adaptor and power cord supplied for this product. Do not use the AC adaptor and power cord of other products.
- The AC adaptor and power cord supplied for this product must be used together. Never combine the AC adaptor of a different product with the power cord.
- Please do not place in a poorly ventilated area.
- Do not put anything on the AC adaptor or cover it with cloth.
- Make sure the AC adapter is not hanging in the air when installing it.
- Do not use an overloaded multi-plug adaptor.



Caution

- Do not store in a small place or close to the wall. Heat may be confined inside and cause damage or fire.
- Do not stack this product, or place objects on top of it.

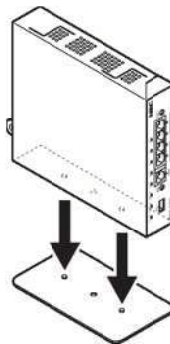
6. Product installation

Preparation

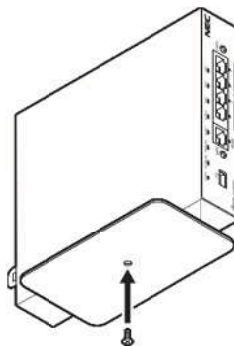
Please prepare a head screwdriver.

For vertical placement

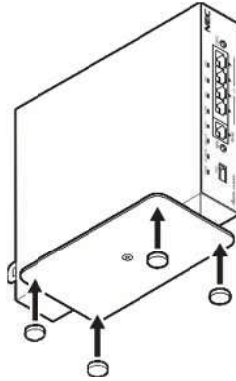
- (1) Insert the stand to the side of the main unit.
Insert the stand into the mounting holes.




- (2) Fasten the stand and the main unit with the provided stand screw.



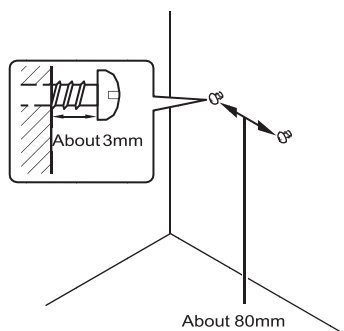
(3) Attach the rubber feet (provided) at the back of the stand.



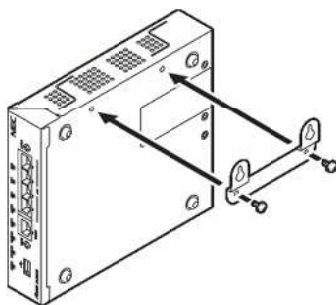
 Caution

For wall-mounting

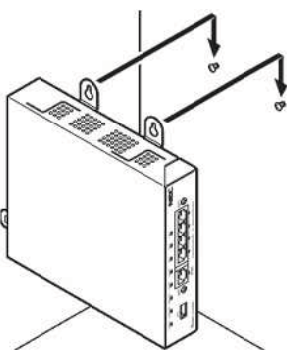
- (1) Determine the position to mount the main unit, and install the wood screws horizontally into the wall in two places.
 - * Do not tighten the wood screws until the end and leave a space about 3mm from the wall.



- (2) The wall-mounting bracket is installed on the base of the main unit with the wall-mounting screws.

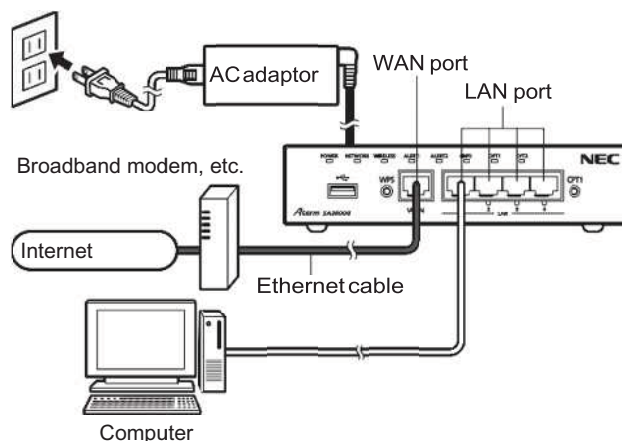


- (3) Wall-mounting bracket of the main unit is attached to the wood screw installed in the wall.



7. Network Setup

- (1) Connect the supplied Ethernet cable between the WAN port of this product and the LAN port of your broadband modem, etc.



- * When starting this product for the first time, please turn it on without connecting an Ethernet cable to the WAN port. After completing procedures (1) to (5) of this product, connect an Ethernet cable to the WAN port and perform activation (Refer to "8. Initial Configuration").
- (2) Connect the computer.
Connect the LAN port of this product to your computer using a customer provided Ethernet cable (straight cable, category 5e or higher).
 - (3) Connect the AC power cord to the AC adaptor. Next, connect the AC adaptor to the AC adaptor connector.
 - (4) Plug the AC power cord into an outlet.
 - (5) Make sure that the POWER lamp illuminates in green.

Caution

Ensure that you make connections in accordance with this manual. Any connection mistakes may cause a malfunction in the connected devices or connection equipment.

8. Initial Configuration

Please initialize this product according to the following procedure. With this setting, activation is done as the target product of the license agreement, maintenance and repair.

- (1) Computer and the LAN port of this product are connected with an Ethernet cable.
- (2) Set the computer's IP address to 169.254.xxx.xxx/16. For xxx, set an integer of 1-254. (169.254.254.11 is excluded.)
* As for the setup of the computer's IP address, please refer to the instruction manual of the computer.
- (3) Start a Web browser; input the following in the address field, and the setup screen is opened.
<http://169.254.254.11/>
- (4) Input the admin password for opening the setup screen after entering the following reserve field determined according to the instructions.

Reserved for Admin password

- * The admin password is needed when this product is setup, so please take note of it. If forgotten, the setup screen cannot be opened, and all initialized settings of this product will be reset. (Refer to "10. Initialization")



The screenshot shows a web browser window with the title "Initial Setting of Administrator Password". Below the title, there is a warning message: "In order to prevent accidental access or change settings by a third party, this product is designed to be accessed for the first time to enter the administrator password. The password can only contain half size alphanumeric characters, a hyphen, and an underscore. Please avoid using sensitive personal information such as name or birth date." Below the warning, there are two input fields: "Password" and "Re-enter Password", each with a question mark icon to its right. An "Apply" button is located at the bottom right of the form.

- (5) When input is completed, click "Apply".
- (6) At the login screen, enter the username and password below.

Username	admin
Password	Set admin password based from procedure (4).

- (7) Please select the method for setting the IP address of this product. An IP address that can communicate over the Internet is necessary. The following are the two types of setup method. Setup can be done using either method.
- (a) Setup using the DHCP client function.
 - (b) Setup using the Web.
- (a) IP address is set using the DHCP client function
The initial value of this product's DHCP client function is [Enable]. Connect the DHCP server at the WAN side or LAN side of this product.
- (b) IP address is set using the Web
For the Web setup of this product, a fixed IP address is set according to the following procedures.
- i. Start Web setup.
 - ii. Click "Maintenance" top page.
 - iii. Select "Basic Setting" then "Network".

The screenshot shows the NEC S-A2500G web interface. On the left, there is a sidebar with the following menu items: Basic Setup, Maintenance (highlighted), Information, and Device Status. Below these is a 'Show Tip/help' link. The main content area is titled 'Device Status' and contains two sections: 'Device Information' and 'WAN(PoE) Status'. The 'Device Information' section shows 'Current Firmware Version' as 'V. 1.0'. The 'WAN(PoE) Status' section shows 'PoE Connection Status' as 'Internet Not Connected'. Below this, there are fields for 'PoE Address / Netmask', 'PoE Gateway', 'PoE Primary DNS', and 'PoE Secondary DNS'. At the bottom right of the main content area is a 'Refresh' button. At the bottom center of the page is a 'Top Page' button.

iv. Each item is set.

The screenshot shows the NEC SAS100G Network configuration interface. The left sidebar contains navigation links: 'Basic Setup', 'Network', 'Maintenance', 'Information', and 'Data Transfer'. The 'Network' section is active. The main content area displays the following configuration fields:

- DHCP Client Function**: Set to 'Enable'.
- DHCP Client Function**: Set to 'Enable'.
- IPv4 Address/Netmask**: Set to '192.168.1.1/24'.
- Gateway**: Set to '192.168.1.1'.
- IPv4 DNS Server Address**: Set to '192.168.1.1'.
- IPv4 DNS Server Address**: Set to '192.168.1.1'.
- IPv4 Primary DNS**: Set to '192.168.1.1'.
- IPv4 Secondary DNS**: Set to '192.168.1.1'.

An 'Apply' button is located at the bottom right of the configuration area.

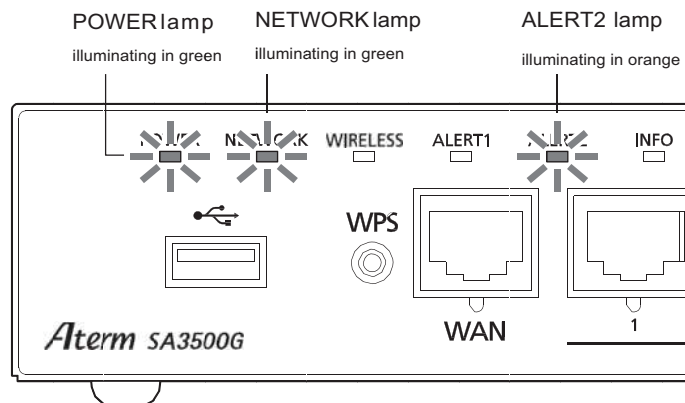
- DHCP Client Function
Remove the check on [Enable]
- IPv4 address/netmask (bit specification)
IP address/netmask of this product is inputted.
- Fixed address
IP address of the default gateway is inputted.
- IPv4 primary DNS
IP address of primary DNS server is inputted.
- IPv4 secondary DNS
IP address of secondary DNS server is inputted.

v. Click "Apply".

vi. Click "Save".

- (8) This product is activated.
Activation means validation of the security scan function and the start of using the license.

- i. The lamp display of this product confirms the following.



- ii. At the front of this product, apply a long press on the security scan function switch, then release it when ALERT2 lamp blinks orange.



- iii. Verify that ALERT2 lamp in front of this product is turned off.

The activation of this product is now complete.



If the ALERT2 lamp is not turned off, activation of this product has failed.

Please confirm the following.

- Can this product communicate over the Internet?
 - Confirm the NETWORK lamp of this product illuminates green.
 - Confirm the setting of the higher-level device of this product (broadband modem etc.).
 - In case the IP address of this product is set by Web, confirm that the IP address, the default gateway address, and the DNS server address of this product are correctly set.

9. Firmware Update

The firmware of this product is updated by using the maintenance upgrade function.

1. This product regularly accesses the management server and confirms the presence of a new firmware.
 2. The INFO lamp of this product illuminates orange when there is a new firmware.
 3. The OPT2 switch of this product is pressed for two seconds or more.
 4. The INFO lamp blinks orange when firmware update starts.
 5. This product restarts automatically when firmware update is completed. The INFO lamp returns to color orange when firmware update fails. (Product does not restart.)
- * Initial value of this function is "Enabled".



10. Initialization

Initialization is to delete the contents set for this product and set it to its default values. In case this product is not operating well and is used differently until now, it is recommended to initialize this product and set it from the beginning.

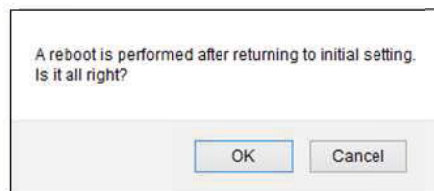
* The firmware to which a customer has upgraded to after purchasing, even if it was initialized, is the version to which it was upgraded to.

Initialization through Web setup

- (1) Start the Web setup. (see page 35)
- (2) Click the top page of "Maintenance".
- (3) Select "Maintenance" then "Initialization".
- (4) Click "Initialization".



- (5) Click "OK".
This product will restart.

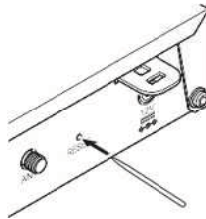


Initialization is now completed.

Initialization with the RESET switch

Initialize using the RESET switch of this product.

1. Confirm that the POWER lamp of this product is green.
Wait for about 140 seconds when power is turned on again or immediately after turning on the power.
2. While pressing the RESET switch at the back of this product with a thin rod (made of material that does not conduct electricity, such as a toothpick), release it when the POWER lamp, NETWORK lamp, and the WIRELESS lamp starts blinking green.
It takes about 6-10 seconds until the POWER lamp, NETWORK lamp, and the WIRELESS lamp blinks green.



Initialization is now completed.

This product restarts automatically after initializing it.

After each lamp turns green, please wait for all lamps to turn off, except for the POWER lamp.

(For other lamps, the state will change depending on the usage.)

11. Securing the USB in place

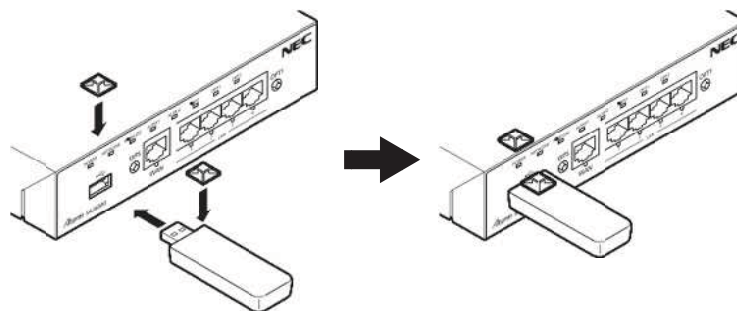
In order to secure the USB device from coming loose from the USB port, a USB clamp kit (Product number: ZA-SA/UC1) is sold separately. Please purchase it if necessary.

When the cable band is used once, it is necessary to cut it with nippers to detach it.

Use the fastening device and the cable band after confirming that the USB device can be operated.

- (1) A fastening device is placed on the USB device and on the surface of the case.

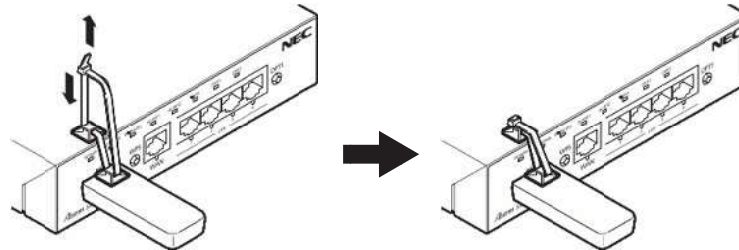
Put the fastening device, and bring it close so that this product's side and the USB device are on the same side.



Caution

Depending on the shape of the USB device, sometimes you may not be able to attach it.

- (2) The cable band is installed.
Be careful when tightening. When the cable band is pulled too much, the USB connector might be damaged and the fastening device might come off. After tightening, use nippers to cut the excess cable band.



* Be sure to cut the cable strap using a cutter before detaching the USB device.

12. Product Specifications

Item		Function	
Product name		Aterm SA3500G	
WAN interface	Physical Interface	8 PIN modular jacks(RJ-45)	
	Number of ports	1 port	
	Type	1000BASE-T/100BASE-TX (IEEE802.3ab/IEEE802.3u) Auto MDI/MDI-X	
LAN interface	Physical Interface	8 PIN modular jacks(RJ-45)	
	Number of ports	4 port	
	Type	1000BASE-T/100BASE-TX (IEEE802.3ab/IEEE802.3u) Auto MDI/MDI-X	
Wireless LAN interface*	Antenna	Built-in antenna	
	IEEE802.11n	Frequency band/channel	2.4GHz (2400-2484MHz)/1-13ch
		Bit rate	At most 300Mbps (in case of HT40)
	IEEE802.11g	Frequency band/channel	2.4GHz (2400-2484MHz)/1-13ch
		Bit rate	54/48/36/24/18/12/9/6Mbps
	IEEE802.11b	Frequency band/channel	2.4GHz (2400-2484MHz)/1-13ch
		Bit rate	11/5.5/2/1Mbps
USB port	Physical Interface	Type A connector	
	Number of ports	1 port	
	Type	USB2.0	
Operating conditions		Temperature: 0 to 40°C Humidity: 10 to 90% (With no condensation)	
Dimensions		Approx. 174(W) x 195(D) x 40 (H) mm Approx. 6.85(W) x 7.68(D) x 1.57 (H) inch (Excludes the protruding parts and stand)	
Power source (AC adaptor)**		AC100V-240V 50/60 Hz (Using the AC power cord)	
Power consumption		Up to 21 W	
Weight		Approx. 1 kg (Excludes the AC adaptor and AC power cord)	

* Wireless LAN and USB functions are scheduled for future support

** The power voltage is a standard value displayed on the AC power cord.

13. Software License Agreement

NEC Platforms Ltd. (Hereafter assumed as "Our company") allows the customer to use the software (Hereafter assumed as "This software") installed in our Aterm SA3500G (Hereafter assumed as "This product") and the related document (Hereafter assumed as "This document") (Collectively, software and this document is referred to as the "Licensed product") based on the software license agreement (Hereafter assumed as "This contract"). It is assumed that the customer has agreed to the contract, so before using this product, please read the contract carefully. When the customer has started using this product, it is assumed that you have agreed to this contract. Please refrain from using this product at once when customer cannot agree to this contract, and return immediately to the store of purchase with all bundled items to prove payment. In this case, the paid price will be returned.

1. Right to use

- (1) Our company allows a customer with limited, non-exclusive, and non-transferable right to use this software only in this product, according to this document.
- (2) The right to execute the following is not included in the above-mentioned rights to use.
 - (i) Duplication, modification, translation, making a quotation or a secondary article of the entire or part of the license.
 - (ii) Offering whole or a part of this product as well as this document by sales, lease, loan, distribution, re-use license or other methods except in the case provided in clause #4 of this article.
 - (iii) Trying to obtain the entire or part of the source code of the licensed products by reverse engineering, or other methods to disassemble, the whole or part of this software.
 - (iv) Erase, modify or conceal the copyright display, trademark notice or other property right displays that are written or embedded in the licensed products.
 - (v) Use all or a part of this software other than this product.
 - (vi) Provide all or part of this software separately from this product.
 - (vii) Use this software to develop software application for customer's business.
 - (viii) Using the licensed product in other usage, like life-support systems, implants, nuclear facilities and systems, in which a breakdown can lead to death or cause catastrophic property damage.
 - (ix) Make a third party execute either the above-mentioned or allow a third party to execute either of the above-mentioned.
- (3) Our company has the right to inspect the use of the licensed product and usage situation for the purpose of confirming the compliance of the customer to the terms and conditions of this contract by prior written notice to the customer. However, the inspection will be carried out during business hours as long as it does not disturb the customer's business.

2. Possession of Intellectual Property Rights

Any provision of this contract are the intellectual property rights concerning all the licensed products as well as program updates (It does not matter whether or not our company made the program update) is not transferred to the customer. All rights regarding the licensed products belong to the suppliers of the company or to our company.

3. No Warranty

- (1) Our company does not guarantee the customer any kind relating to the licensed product.
- (2) Our company will provide the customer the program that performs the update or the program (Hereafter assumed as "Update program") for the update or information of the update based on the software maintenance contract to be executed among customers separately when there is an update, additional functions, change or bug fix (The following are collectively called "Update") of the licensed product. However, the necessity for providing the program or information, availability, how to provide, etc., shall be determined based on the company's decision. The update program provided to the customer is assumed to be part of the licensed product.

4. Contract period and contract cancellation
 - (1) Customer can terminate this contract by written notice to the company at least 30 days before the contract termination.
 - (2) When the customer does not comply with any provisions of this contract, our company can cancel this contract any time.
 - (3) After cancelling this contract, the customer cannot use this product and this document for any purpose. After this contract is cancelled, Article 1 Section 2, Article 1 Section 3, Article 2, Article 3, Article 5, Article 6, Article 7, and Article 8 are assumed to continue to take effect.
5. Export

The customer must not export this product, as well as the whole or a part of this document directly or indirectly without getting permission Japanese Government, US Government, and the associated foreign government. Moreover, it is not possible to use it outside Japan because it does not conform to foreign regulations, etc.
6. Limitation of Liability

The company or our store shoulders no kind of responsibility regarding the procurement cost of using alternate goods or alternate service resulting from using or unavailability of the licensed products arising out of this contract, profit losses, indirect losses, special damages, consequential losses, collateral damages, or punitive damages (Includes a case where our company has foreseen the occurrence of damage or was able to foresee.). Moreover, when our company or our store assume liability for the damages, regardless of its legal structure, assumes the upper bound of the price equivalent to the amount of the licensed product out of consideration of this paid product by the customer.
7. Third party Software

The software component permitted by the third party is included in this software. Provisions of this contract are not applied to these software components, and we assume that the respective license conditions are applied. Please confirm this item described in the instruction manual included with the product about these software and the terms of use.
8. General Provisions
 - (1) This contract is governed by Japan law; it is interpreted in accordance with the country's law.
 - (2) For the resolution of all disputes related to this contract, it shall be settled as a first trial in an exclusive agreement jurisdiction court at the Tokyo District Court.
 - (3) The customer, regardless of any operation of law other modes, may not succeed, transfer or entrust this contract or contract rights in this document without prior consent.
 - (4) This contract provides for the complete agreement between our company and the customer regarding the subject matter of this contract, and to replace all previous consent, agreement, and declaration of intention or memorandum of understanding.
 - (5) The Software is a "commercial item" as that term is defined in 48 C.F.R. 2.101, consisting of "commercial computer software" and "commercial computer software documentation" as such terms are used in 48 C.F.R. 12.212. Consistent with 48 C.F.R. 12.212 and 48 C.F.R. 227.7202-1 through 227.7202-4, NEC Platforms provides the Software to US Government End Users only pursuant to the terms and conditions herein.
9. Contact

Please contact "14. Contact Information" of "Aterm Biz Information Center".

14. Contact Information

(As of January, 2016)

Product Support

http://www.necplatforms.co.jp/product/security_ap/

Aterm SA3500G support information such as manual for downloading and useful information are published.

For questions on the function and handling method of the Aterm Biz product, you can contact us by mail.

Please follow the procedure in the website below and input your questions.

https://www.necplatforms.co.jp/scripts/net_s/form.pl

* Please acknowledge beforehand that service sometimes may be suspended.

Aterm Biz Information Center

For questions on Aterm Biz's function, operation, setting, fault diagnosis, maintenance, repair, optional purchases, etc., please contact the Aterm Biz Information Center.

Request

NaviDial TEL: 0570-025225 (Same number from a mobile phone.)

- * Call charge is customer charged.
- * It is not likely to connect from some parts of IP lines (050 numbers).
When not connecting, please use other means of communication such as mobile phones.
- * Service contents may change without prior notice.
Contact Hours 9:00AM - 12:00AM, 1:00PM - 5:00PM (Monday - Friday)
(Closed on weekends, holidays, Year-end and New Year holidays, company holidays, and during system maintenance.)

(Handling of Personal Information)

In our company, we established the privacy protection policy and we strive for the protection of the customer's personal information. Customer personal information included in the information provided by the customer is acquired in order to answer inquiries and contact customers, and is never used for other purposes. Moreover, personal information is never offered to a third party without the consent of the customer. However, personal information may be disclosed to subcontractors in order to entrust the business. In that case, it is entrusted after having signed an agreement, including the nondisclosure clause, etc., and personal information is managed properly. In case of inquiries and consultation regarding personal information, please contact NEC Platforms, Ltd. Aterm Biz Information Center (see page 48).

Functional Details Manual

Detailed function of this product is explained in the "Functional Details Manual". Start a Web browser and refer to the following URL.

Moreover, "Functional Details Manual" can be downloaded to your computer and be read offline. Please download the file from the support page of following URL if necessary.

http://www.necplatforms.co.jp/product/security_ap/

Store

NEC Platforms, Ltd.
Aterm SA3500G Instruction Manual 2nd edition

AM1-002912-002

1/2016

