

Multi-link unit user guide

pay attention to

- The content in the Multi Link Unit User Guide (the Multi Link Unit User Guide) may vary by your version.
- The content of this document is subject to change without prior notice.
- Please confirm the company homepage for the latest manual.



CATALOGUE

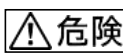
pay attention to.....	2
CATALOGUE	3
1 For the sake of safety.....	4
The meaning of warning.....	4
1.1 warn.....	4
1.2 pay attention to.....	4
2 Notes for Safe Use.....	5
3 disclaimer.....	6
4 Precautions for use.....	7
5 Safety considerations when using wireless LAN products.....	8
6 Before use.....	9
6.1 Check the packaging.....	9
6.2 Names and functions of the sections.....	9
6.2.1 About the status indicators.....	9
6.3 About the SIM card.....	9
6.3.1 How to install a SIM card.....	10
6.3.2 How to remove the SIM card.....	10
7 Hardware specifications.....	11

1 For the sake of safety

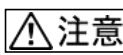
Above records the harm to the user, the damage to the property nip in the bud, safe and correct use of attention. Always observe the records when using them.

The meaning of warning

The contents of this document are shown below.

 **危険** Failure to comply creates extremely dangerous situations, causing serious injury and even death.

 **警告** Failure to comply with this rule may cause serious injury or death.

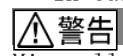
 **注意** Failure to comply with this matter can cause injuries and property damage.

1.1 warn

 **警告** Do not repair, dismantle, or transform the products
It can cause fire, electric shock, rupture, burns, and poor handling.

 **警告** Do not wet this product or use it in moisture places
If water or detergent splashes onto the product, it will dip into the gap, causing a fire or an electric shock.

- Use in bathroom, rainy, snow, coast, water, especially note.
- Please do not put something with water (cups, vases, etc.) on it.
- In case the product is wet, please absolutely do not use it.

 **警告** Do not place this product within the reach of infants and young children
Misswallowing, can cause suffocation and stomach damage. It may have been swallowed up
If so, please consult your doctor immediately.

 **警告** No power supply occurs due to a fault or an abnormality
If the product fails or abnormal, be sure to remove it from the connected device.
If used directly, it can lead to fire, electric shock, and failure.

 **警告** Do not use this product in the hospital
May cause medical equipment failure.

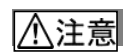
 **警告** Do not use this product on the aircraft
Cause aircraft instruments and other faults.

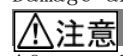
 **警告** Do not use it near medical devices such as pacemakers or near industrial or scientific devices

It may affect the operation of medical devices such as pacemakers, industrial and scientific equipment, leading to accidents. Medical facilities may ban radio devices.

 **警告** Stop using immediately if there is smoke or a strange smell or sound
Direct use can lead to a fire and an electric shock.

1.2 pay attention to

 **注意** Do not trample on this product
Damage and cause damage. Especially for young children, please pay attention.

 **注意** Do not contact with fixed places for a long time
After using this product for a certain period of time, it may feel very hot. Long contact with fixed places can cause low-temperature burns.

2 Notes for Safe Use

- in the process of use, if the product emits smoke, abnormal heat, odor, abnormal sound, please stop using immediately.
- Please do not hum, climb, throw, fall, etc.
- Please do not put foreign bodies and liquid to attach them.
- due to long use, this product becomes warm, please avoid high temperature and humidity and direct sunlight.
- Please do not disopen or transform it.
- may violate radio wave laws and regulations outside Japan. Please do not use them.
- Because it is a microSIM card exclusive, do not use different size SIM cards and size conversion adapters.

When ● installing / removing the microSIM card, remove the product from the connected device and remove the battery from this product.

- Please do not use it where magnetic fields and static electricity, electric wave barriers occur.
 - Follow these instructions in areas or facilities where communication equipment is prohibited or restricted.
 - use on the aircraft.
 - Please consult your doctor in advance when using medical devices such as pacemakers
- The ● 3G communication does not correspond to the other.
- SMS and voice calls do not correspond.

No waterproof performance.

The ● maximum communication speed is the maximum value on the technical specifications, and does not represent the actual communication speed.

The ● communication speed may be reduced due to the communication environment and network congestion conditions.

The ● becomes unstable when the battery surplus is insufficient. After confirming the battery surplus, please use it.

- This product is not guaranteed to connect to the computer and it is running.

When this product is used near the human body, please use it is more than 20 cm away from the body.

The product complies with the specific absorption rate (SAAR).

The allowable value of SAR for this communication terminal is 2.0 W / kg.

The maximum SAR value for this product is [TBD] W / kg (10g) when:

Although individual products may differ slightly in SAR, they all fit with acceptable values.

3 disclaimer

- shall not be responsible for accidental damage (such as data loss) or economic loss (e. g. lost business opportunity) caused by the use of the product, faults, faults, natural disasters, communication failure, third party interference, etc.
- shall not be responsible for any damage and economic losses caused by any failure of being used in conjunction with communications equipment and software that does not involve the Company.
- shall not be liable for damage or economic losses arising from failure to comply with the contents recorded in the instructions.

This product is specially manufactured and sold exclusively in Japan.

- This product cannot be used abroad in Japan.
- Do not liable for any problems caused by the use of the product in Japan.

This product does not provide technical support and services abroad in Japan.

This product is manufactured and sold for Japanese domestic market only.

This product can not be used outside Japan.

did you know?

.

The copyright of this article belongs to our company, and part or all of the content is strictly prohibited.

The design and specifications of products, etc., may be changed without notice.

Not guaranteed operation via conversion adapters or USB hubs (including the USB ports on the monitor or keyboard).

The contents of this document are subject to change without notice.

The company name and product names in this document are trademarks or registered trademarks of the respective companies.

If you have any questions regarding this document, please contact our support.

Soliton, Systems, and the S T C Support Center
P 160-0022 Shinjuku 2-4-3, Shinjuku District, Tokyo
TEL: (03) 5360-3850

4 Precautions for use

■ this product because of the use of wireless, in the tunnel, underground, the building medium radio wave can not reach the place, the outdoor radio wave is weak, the place can not be used outside the service area. In addition, even high-rise buildings, apartments and other high-rise buildings, places with open vision, may not be used.

■ When installing / removing the SIM card, you must remove the product from the connected device and remove the battery from the product.

Equipment following ■ uses the same frequency band as the radio station. Do not use it nearby.

● pacemakers and other medical devices, industrial and scientific equipment

Dedicated campus radio stations (licensed required) used by ● factory production lines)

● specific low power station (no license)

Use of this product near the above-mentioned area may cause radio wave interference. Therefore, no communication or slowing down may occur.

■ Please try not to use mobile phones, PHS, TV, radio near this product.

Mobile phones, PHS, TV, radio, etc. use different radio wave frequency bands from wireless LAN, but the electromagnetic waves emitted by wireless LAN products including this product may generate noise in audio and video.

No communication between ■ if there is steel and metal and concrete.

This product uses radio waves, because the usual house uses wood and glass, etc., through, the walls of the room have wood and glass can also communicate.

However, when steel, metal, and concrete are used. If they were used on the walls of the room, they cannot communicate. Again, between floors, if reinforcement, metal, and concrete, etc.

■ If you turn on and back on the product, wait more than 5 seconds before turning it on.

When ■ communicates with IEEE802.11 n (2.4 GHz), IEEE802.11 b, and IEEE802.11 g, it is a wireless device using a 2.4 GHz full frequency band that avoids the frequency band of mobile recognition devices. The DS-SS and OFDM modulation methods were used with an interference distance of 40 m.

The device is intended to use in a home environment, but causes reception failure when it is used near a radio or television receiver. Follow the instructions to do correctly.

VCCI-B

5 Safety considerations when using wireless LAN products

(Important matters about your rights (privacy protection)!)

Since a wireless LAN does not use an LAN cable, but instead uses radio waves to exchange information between personal computers and wireless access points, it has the advantage of freely making a LAN connection within the range that the radio waves reach.

On the other hand, if no safety settings are set, the following problems may occur because radio waves cross obstacles (walls, etc.) to all locations.

The ● communication content is peeked at

Malicious third party intentionally intercepting radio waves,

Personal information such as ID card, password, or credit card number

Email content

The content of the communication has the possibility of being viewed.

The ● was subjected to an illegal invasion

Malicious third parties enter personal or corporate networks without authorization,

- Extract personal information and confidential information (information disclosure)
- Pretend specific people to communicate and spread improper information (posing)
- Overwrite the listening communication content for sending (tampering)

Spread computer viruses and other destructive data and systems (destructive)

And so on behavior.

Initially, the wireless LAN subdevices and wireless access points have the security mechanisms used to solve these problems, so the possibility of having these problems can be reduced by setting up and using the security settings of the wireless LAN products. Our wireless LAN products have security settings at the factory, but according to the wireless LAN specifications, the security settings may be destroyed by special ways, please use after understanding. If you cannot resolve your own security settings, please contact our support center. We recommend that you use the product when fully aware of the possible problems that may arise when using the product without security settings, and make security settings according to your own judgment and responsibilities.

* Soliton Systems is not responsible for the damage caused if the safety measures are not taken or due to the wireless LAN specifications.

6 Before use

6.1 Check the packaging

The following thing is inside, please confirm before using it.

If deficiencies, please contact the sales window.

Body: 1

User Guide (this document): 1 page

● In order to connect to the LTE network, it requires a separate nanoSIM card signed with communications companies.

TBD

6.2 Names and functions of the sections

TBD

6.2.1 About the status indicators

LED name	black out	light up	Schiffing oneself 1
POWER	The MLU power supply is turned off	The MLU power supply is turned on	Error * 2 * 3
WWAN1-4	The LTE module power supply is switched off Or no SIM	IP acquisition determination	Unable to get the IP or Unable to enter the network.※3
Wi-Fi	Module power is turned off	No first version	No first version

1 LED flashing: about 500ms to light, about 500ms out repeatedly.

2 The user needs to turn off the MLU power supply once. The following are the MLU internal dynamics

1. WWAN, Wi-Fi module power is off (supported LED indicator is off)

2. The indicator lamp POWER flashes without accepting control

3. Wait for the user to turn off the power supply

3 When detecting the FAN lock of the MLU

- POWER, WWAN1 flashes slowly
- Other indicator lights go off

6.3 About the SIM card

A SIM card is an IC card that contains customer information such as phone numbers.

When using this product, please first install the SIM card into the product.

pay attention to

Without installing the SIM card, the product cannot conduct any communication.

6.3.1 How to install a SIM card

TBD

6.3.2 How to remove the SIM card

TBD

pay attention to

- Please be careful not to touch the IC part of the SIM card and scratch it. Please note that dirty IC parts may cause poor contact and may cause power failure of this product.
- Please note that the SIM card may be damaged if you try to forcibly install or remove the SIM card.
- Do not install or remove the SIM card while the product is powered on. Can cause failure.
- Reverse insertion of the SIM card can cause failure.
- Please note not to lose the removed SIM card.



7 Hardware specifications

Model number: IFC-MLU-JC-H

Dimensions: about 140mm (L) x 95mm (W) x 45mm (H) * without extension

Quality: approximately 340g

Operating temperature: -5-40° C

Working humidity: 10-80%RH

Interface: USB2.0 Type-A

current consumption:

Input voltage: 15V $\overline{\text{---}}$ 3A

Output voltage: 12V $\overline{\text{---}}$ 2A

Maximum communication current consumption: TBD (about [550] mA) or less

Average current consumption during communication: TBD (about [300] mA) or less

Average standby current consumption: LTE: about [30] mA or less, TBD

Supported SIM card shapes: nanoSIM

LTE: Supported frequencies of 1.7 GHz, 1.8 GHz, 2.5GHz

Compatible with frequency bands B2, B4, B41

Data rate: LTE Cat.4 The highest downside is 150Mbps and the highest downside is 50Mbps Wireless

LAN: IEEE 802.11 b / g / n

The 2.4 GHz frequency band

Safety: WPA2-PSK (AES) TBD

The communication speed is the technical maximum value when sending and receiving, and does not represent the actual communication speed. It will be provided in the best possible way, with the actual speed varying depending on your communication environment, network congestion conditions, and your SIM service contract

8 FCC warning:

Any Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Note: 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 or more 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.

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.

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