



5013266900

# PPM N1U\_SB1 Sub-1G module

## Quick Installation Guide

### Essential Points for Safety

- Request a specialist to dispose of the product.
- Take care to ensure no water or other liquid gets on the SUB\_1G.
- The product may malfunction or may be damaged by static electricity. Be sure to remove any static electricity on the body, through such means as touching a metal object nearby, prior to coming into contact with the product.
- Store the product in a location with the temperature ranging between -30 and +70°C, with the humidity ranging from 30 to 85% RH.

### Do not install the product in the following places:

- Do not expose to extreme fluctuation temperature.
- Do not expose to salt air.
- Do not expose to corrosive substances, explosive / flammable GAS, chemicals.
- Do not install in direct sunlight.
- Do not install in a place exceeding the operating temperature range (-25 to +55°C).
- Do not install above 3000m MSL or higher.
- Do not expose to water vapor, oil vapor, smoke, cotton dust, metal powder, sawdust.
  - ※ If installed outdoor, please put it in box which is suitable for outdoor use.

### Warning

|  |                                                                                                                                                                                                                          |
|--|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  | Do not allow any fire producing objects to be near the product, or apply any spray, including combustible gases, to the product. The product may ignite or explode in the unlikely event such an occurrence takes place. |
|  | Do not touch the product with wet hands. The product may cause injury due to electric shock or equipment malfunction may occur in the unlikely event such an occurrence takes place.                                     |
|  | Do not disassemble or modify the product. The product may cause injury or fire due to electric shock in the unlikely event such an occurrence takes place.                                                               |

### Caution

|  |                                                                                                                                                                                                                                                                                                                                                                                                                               |
|--|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  | When installing the SUB_1G on a wall made of materials that are not wood, be sure to acquire plastic anchors available on the market to secure SUB_1G on the wall surface. There is danger of injury from the product falling in some rare cases.                                                                                                                                                                             |
|  | Do not install the product in the following types of locations:<br>There is danger of burnout in some rare cases. <ul style="list-style-type: none"><li>• Locations that are exposed to rain water, such as outdoors or under eaves and the like.</li><li>• Locations that are exposed to steam or where the moisture level is 30 to 85% RH, such as lavatories, changing rooms, work sites, kitchens and the like.</li></ul> |
|  | Do not use organic solvents (paint thinners, benzene and the like), strong alkaline substances or strong acidic substances to clean the case of the product. There is danger of discoloring the case or the equipment malfunctioning in some rare cases.                                                                                                                                                                      |
|  | Do not install the product in a place that is subject to significant effects of vibration and impact. There is danger of injury from the product falling in some rare cases.                                                                                                                                                                                                                                                  |

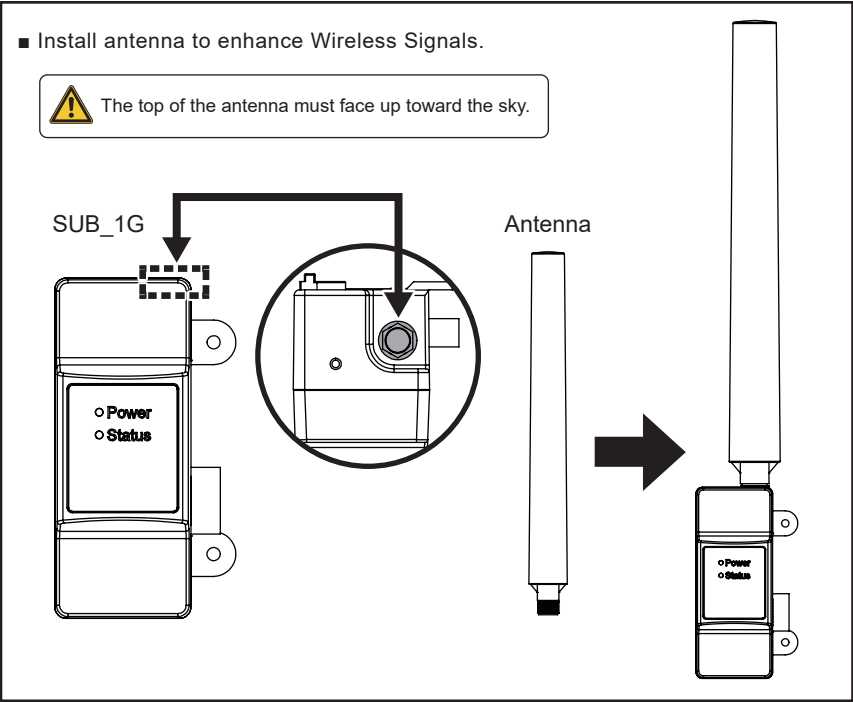
### Scope of Delivery

| NO. | Product name             | Qty      | Remarks                                      | Shape |
|-----|--------------------------|----------|----------------------------------------------|-------|
| 1   | SUB_1G                   | 1 unit   | Main unit                                    |       |
| 2   | Antenna                  | 1 piece  | Install antenna to enhance Wireless Signals. |       |
| 3   | Quick Installation Guide | 1 copy   | Installation guide                           |       |
| 4   | Screw                    | 2 pieces | SUB_1G screws                                |       |

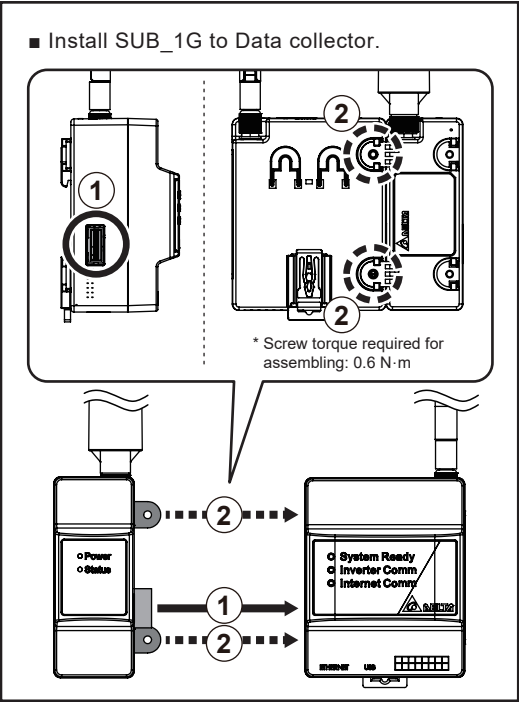
### SUB\_1G Module

| ■ SUB_1G Module          |                                                           |
|--------------------------|-----------------------------------------------------------|
| Name                     | Explanation                                               |
| Network standard support | FCC/CE/TELEC/NCC                                          |
| Data rates               | 5860bps (BW: 500kHz)<br>2930bps (BW: 250kHz)              |
| Modulation techniques    | FSK/OOK                                                   |
| Bandwidth                | FCC: 500kHz<br>CE: 250kHz<br>TELEC: 500kHz<br>NCC: 500kHz |

SUB\_1G Antenna



Installation Diagram



LED Description

| Status           | Red LED    | Yellow LED | Green LED  | Description                                          |
|------------------|------------|------------|------------|------------------------------------------------------|
| Upgrade N1       | Slow Flash | OFF        | Slow Flash | Update N1 card.                                      |
| Upgrade Module   | Slow Flash | Slow Flash | OFF        | Update RF module.                                    |
| No Host          | OFF        | Slow Flash | Slow Flash | No back-end devices are connected.                   |
| Module Not Ready | Slow Flash | OFF        | OFF        | Waiting for module initialization.                   |
| Ext. Idle        | OFF        | ON         | OFF        | No Ext. data transmission for more than 300 seconds. |
| Int. Idle        | OFF        | Slow Flash | OFF        | No Int. data transmission for more than 600 seconds. |
| Normal           | OFF        | OFF        | ON         | Connecting.                                          |

| Power | Light Green LED | Description                         |
|-------|-----------------|-------------------------------------|
|       | ON              | When the device is receiving power. |
|       | OFF             | Powered off.                        |

FCC Part 15.19

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

FCC Part 15.21 information for user

You are cautioned that changes or modifications not expressly approved by the party responsible for compliance could void your authority to operate the equipment.

FCC Section 15.105 Information to the user.

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.

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 20cm between the radiator & your body.