AsReader®

ASA-211AT-V2
User Manual

Type   **AntennaTub**

Category   **RFID**

Initial Version 2025/2/17

Asterisk Inc.

■**Revision History**

Version	Modified Contents	Date
V1.0	Initial version	2025/01/31

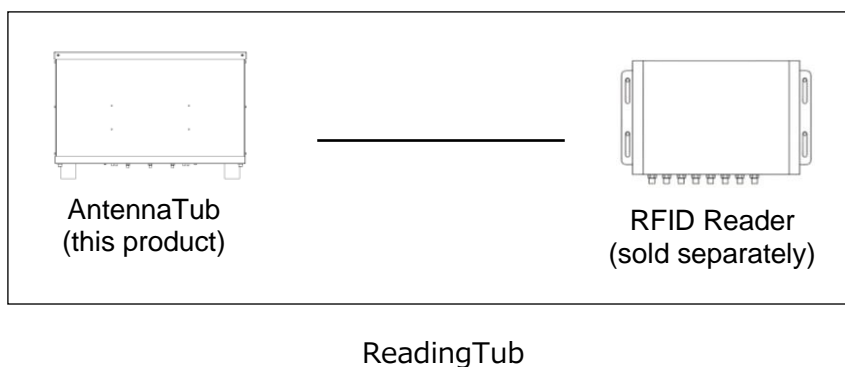*****The contents of this manual are subject to change without notice.**

Contents

Preface

Thank you for purchasing the AntennaTub (ASA-211AT-V2). This document provides important precautions for using the AntennaTub. Please read it carefully before use and store it for future reference.

When the AntennaTub (this product) is combined with an RFID Reader (sold separately) they can be used together as a "ReadingTub".

A ReadingTub is an ideal combination of devices for efficiently reading RFID tags within a Tub. It is particularly suited for reading multiple tags (from a few to several dozen) in a single, swift operation, such as at cash registers or shipping stations.

In this manual, "AntennaTub" refers only to this product, and "ReadingTub" refers to the combination of this product and an RFID Reader.

AntennaTub
(this product)

RFID Reader
(sold separately)

ReadingTub

*For the use of RFID readers, please refer to the manual of the device used.

How to Contact Us

If you have any comments or questions about this manual, please contact us at:
https://asreader.com/contact/

★The copyright of this manual belongs to the company "Asterisk Inc." Without the permission of the company, no reproduction, reprinting, modification or translation into other languages is allowed.

★The contents of this manual are subject to change without prior notice. In addition, the images in this manual are all reference images and may be different from the actual product.

★ Warning: Please read this manual before use. Incorrect use of this device could result in property damage, serious personal injury, or even death. We will not be responsible for any loss caused by non-compliance with this manual.

★ We cannot take responsibility for any damage resulting from natural disasters like earthquakes, lightning, wind, floods, or fires beyond our control. Additionally, damages caused by third-party actions, accidents, intentional or negligent acts, misuse, or abuse are also not our responsibility.

★If damage is caused by dropping or smashing, as determined by our company, a maintenance fee will be charged, even within the warranty period. Abuse and drops are not covered by the Limited Warranty.

★We will take appropriate measures to ensure that our products do not infringe other patents, but we are not responsible for any patent infringement caused by any of the following items, numbered (1) to (4):
(1) Used in combination with components, products, equipment, data processing systems or software outside our company.
(2) Our products are used in unexpected ways.
(3) Modification of our products by any person or company other than our company.
(4) Use outside of the country where the products are purchased.

Safety instructions

Please read the following instructions carefully to prevent injury, malfunction, fire, etc.

⚠ **Warning**
Do not attempt to disassemble, modify or repair the ReadingTub yourself, otherwise it may cause malfunction, fire or electric shock. We are not responsible for any failure caused by our own maintenance.
If you notice any abnormalities such as smoke, abnormal odor, or strange noise coming from the ReadingTub during use, stop using it immediately. Continued use may cause fire or electric shock.
Do not drop or throw the ReadingTub or subject it to strong impacts. Doing so may cause damage, fire, electric shock, or malfunction. It may also cause injury. If the ReadingTub is damaged by dropping and the inside of the ReadingTub is exposed, do not touch the exposed part with your hands, because there is a risk of electric shock or injury from the damaged part.
Do not allow metal or other objects to come into contact with the terminals of connectors. Doing so may cause a large current to flow, resulting in overheating, fire, injury, or damage to the device.
Do not get the ReadingTub wet with water or any other liquid. Doing so may result in fire or electric shock. If foreign matter or water does get inside the ReadingTub, unplug the power cable immediately.
Do not use a power supply with anything different than the specified power supply voltage. Doing so may cause device damage or fire.
When constructing a system that may affect human life, such as the management of chemicals using the ReadingTub, please pay close attention to redundancy and safety design so that even if the data is incorrect, there is no possibility of affecting human life.
A ReadingTub is an RFID device that uses specific low-power UHF frequency band radio waves. Therefore, depending on the application and location of use, it may affect medical equipment. In order to minimize this effect, the following must be strictly observed during operation. 1. The ReadingTub operators should keep the ReadingTub at least 22cm (9in) from any site where implantable medical devices are installed. 2. Persons with implanted medical devices should not come within 22cm (9in) of the ReadingTub. When taking the ReadingTub overseas, please consult with us in advance, as it is necessary to comply with the laws and regulations of each country and region.

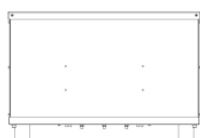| ⚠ **Caution** |
| --- |
| ReadingTubs are certified in accordance with the radio wave laws of specific countries.
Since each country or region has different regulations regarding radio waves, it is necessary to comply with the respective regulations. Modification of this product is prohibited, and violations may result in penalties according to the regulations of each country or region. |
| For PoE charging devices or AC adapters connected to the ReadingTub, please use the device with the specifications described in the RFID reader manual you are using. If you use a non-standard device, you may cause the ReadingTub to malfunction or perform poorly. |
| Please refer to local regulations when you recycle this device. |
| If you notice any abnormalities, please discontinue use and contact your distributor immediately. |
| Do not place the ReadingTub in a car with Windows closed or in direct sunlight where the temperature is very high, which can damage the device case and components, or cause a fire. |
| Do not place the product on an unstable surface such as a wobbly table or a tilted location. It may fall and cause damage. |

How to Care for the Device

Please use this device in a clean environment. Please keep the device clean. If the device becomes dirty, wipe it with a soft, dry cloth. Using solvents of high-volatility may cause color changes and performance problems.

1 System Structure

1.1 System Structure

When setting up a system using this ReadingTub, you will need not only the AntennaTub but also an RF Reader compatible with external antennas and software capable of processing the read data. The connection method will vary depending on the power source and communication type.

AntennaTub
(this product)

RFID Reader
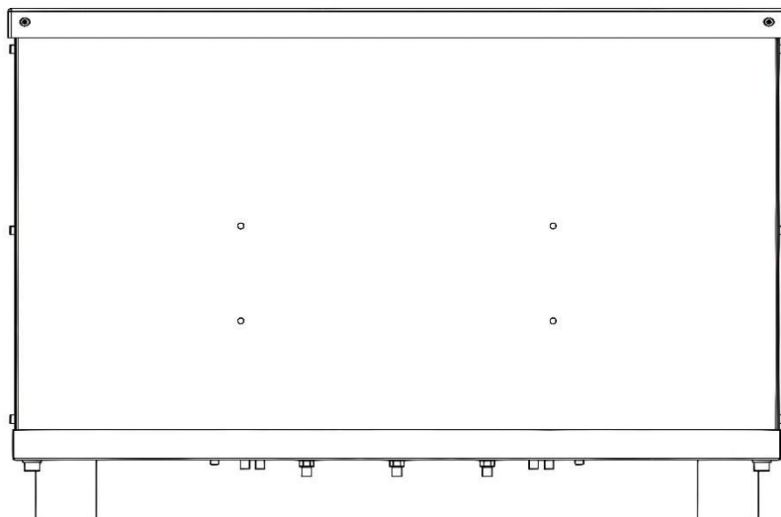(sold separately)

PC

1.2 Packaging

The package of this product contains the physical and complimentary accessories (three x 2m-coaxial lines and a user manual QR code).
Please purchase any additional products required for use of the AntennaTub and ensure that all products are available before use.
In case any items are missing or damaged, please contact the company from whom you purchased the device.
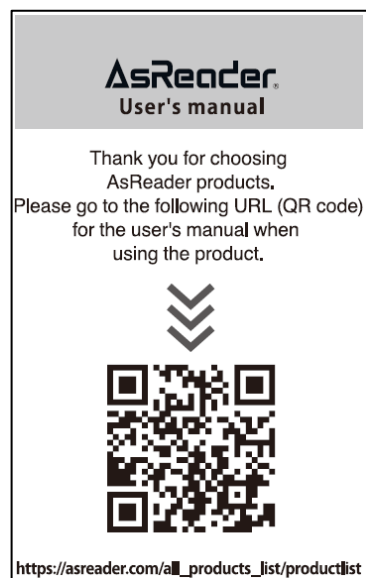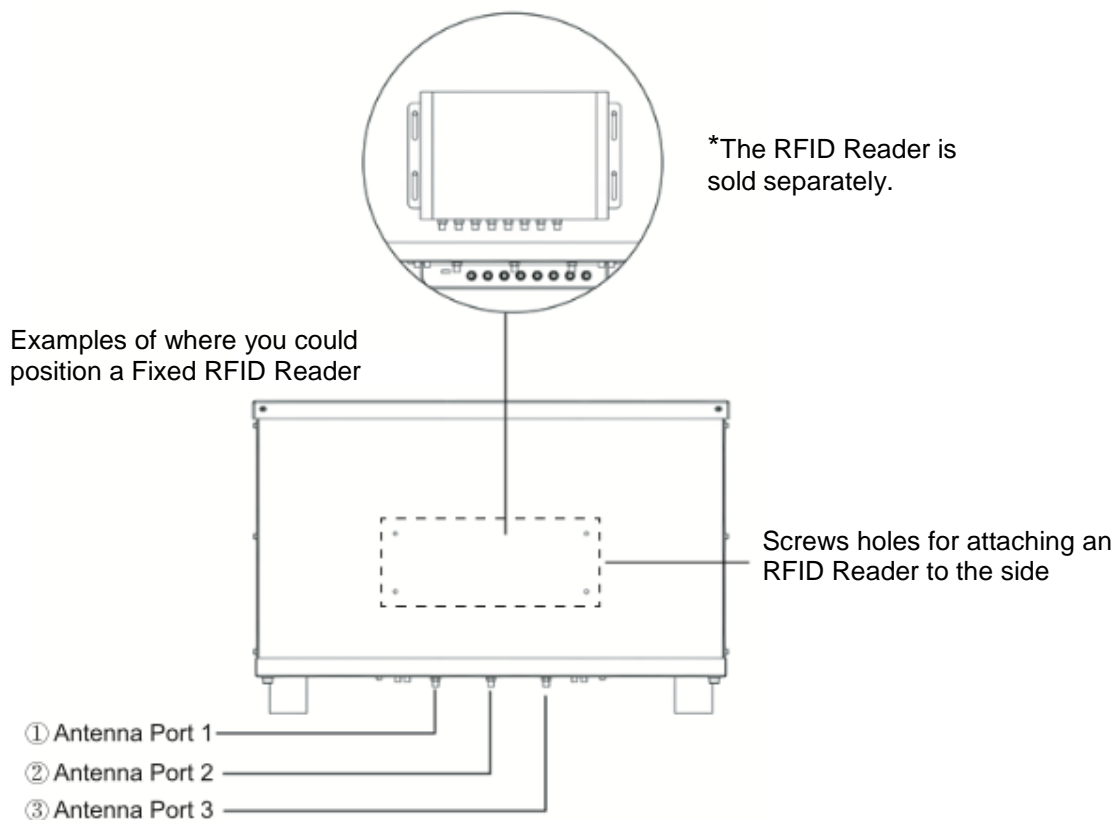
[Standard]

●AntennaTub

[Accessories]

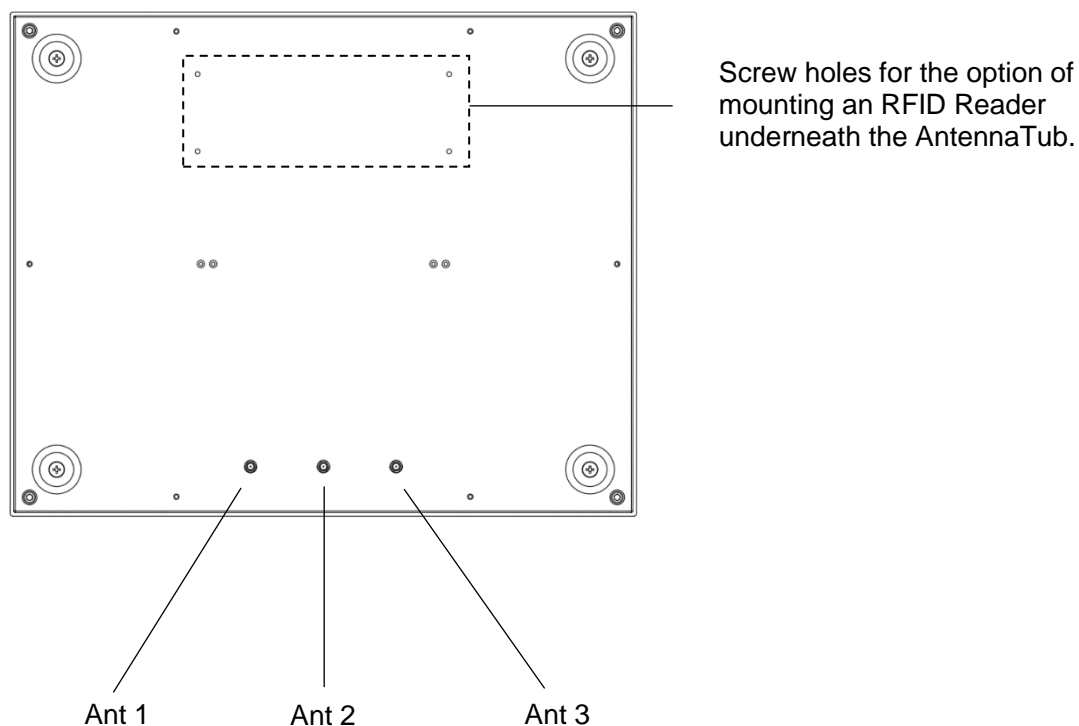●Coaxial line (2m) x 3

●User Manual (QR)

AsReader®
User's manual

Thank you for choosing
AsReader products.
Please go to the following URL (QR code)
for the user's manual when
using the product.

https://asreader.com/all_products_list/productlist

2 Appearance

*The RFID Reader is sold separately.

Examples of where you could position a Fixed RFID Reader

Screws holes for attaching an RFID Reader to the side

① Antenna Port 1
② Antenna Port 2
③ Antenna Port 3

3 How to Use

3.1 Antenna Interfaces

The AntennaTub has three SMA antenna interfaces (male). (As shown in the picture Below.)

Screw holes for the option of mounting an RFID Reader underneath the AntennaTub.

Ant 1   Ant 2   Ant 3

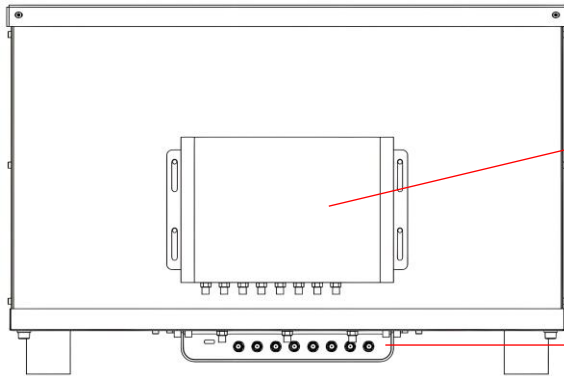We recommend that you set the power of the antennas to:
● Antenna1: 20dBm
● Antenna2: 18dBm
● Antenna3: 20dBm

For other settings, we recommend that you set the parameters as follows:
● Read Time: 100mS
● Idle Time: 500mS
● Session: S1
● Q Value: DynamicQ

3.2 How to Mount an RFID Reader

The AntennaTub is provided with screw holes on the side and bottom surfaces for the options of mounting a reader. Using these holes, you can attach the reader to the AntennaTub body.
*To mount a reader using these holes, prepare M4x8mm bolts. Using bolts larger than 8mm may damage the device.

*The RFID reader is sold separately.

Showing the option to side-mount

Showing the option to mount underneath

If the reader is not secured to the AntennaTub, be careful not to place the reader in an insecure place or on an unstable surface.

3.3 Wiring Guide

The coaxial cables included in the package have different terminals on each end: one straight and one 90° elbow terminal. When using the AntennaTub, connect the straight terminals to the RFID Reader and the elbow terminals to the AntennaTub.

*Reversing the cable connectors may damage the cables and cause device failure. Therefore, please ensure to the elbow terminals are properly connected to the AntennaTub.

Straight terminal
(connect to RFID Reader)

L-type 90° elbow terminal
(connect to AntennaTub)

Appendix-Specifications

Model Name		ASA-211AT-V2
Port	Antenna Port	3port SMA (male)
Appearance	Dimensions (W)x(D)x(H)	511.6 × 416.3 × 339mm
	Casing Material	SPCC
	Casing color	White
Weight		About 7kg
Environment	Operating	-10~45˚C, 20~85%RH
	Storage	-20~60˚C, 10~95%RH
Load capacity		50kg
Accessories		Coaxial line (2m) x3, User Manual (QR Code)

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