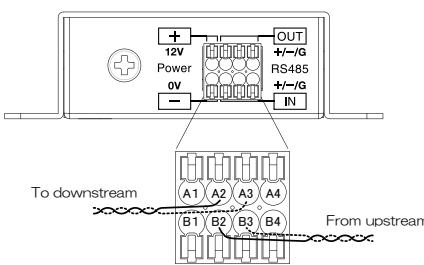


● Wiring

- Connect the power and signal wires according to the pin wiring diagram below.
- Be sure to use twisted pair wire for wiring.
- It is recommended to use rod terminals at the tip of the wiring.

Made by Phoenix Contact
Rod terminal - A 0.25 - 7 - 3202478, AWG26 - 24
Rod terminal - A 0.34 - 7 - 3009202, AWG22



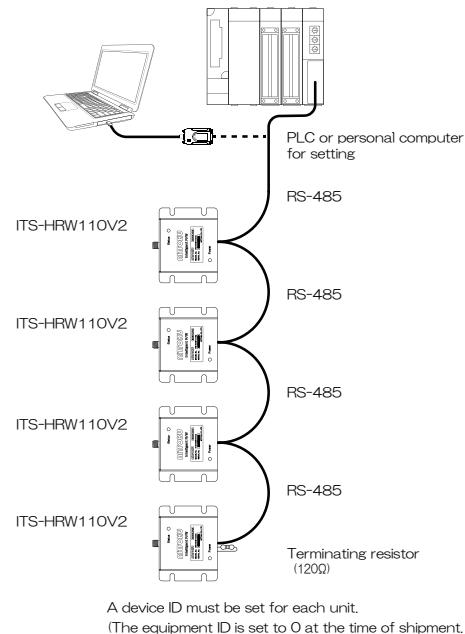
Pin Layout

- A1: Power supply DC + 12 V Input
- B1: Power supply GND (0 V)
- A2: + OUT RS485 daisy-chained output +
- A3: - OUT RS485 daisy-chained output -
- A4: SG ground (bus side)
- B2: +IN Daisy chain input of RS485 +
- B3: -IN Daisy chain input of RS485 -
- B4: SG ground (bus side)

Use grounds A4 and B4 of RS485 as required.
The RS485 communication part is insulated from the internal circuit.

- 9 -

● Example of system configuration

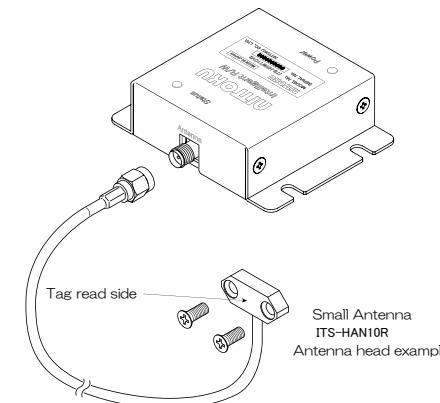


- 10 -

● Installing the Antenna

- Connect the specified antenna to the antenna connector.
- Be sure to tighten with a torque wrench for SMA (0.6 ~ 1.0 Nm).

Caution • The antenna connector of the main body may be damaged if tightened with a spanner for machinery.



- Follow the instructions for each antenna to secure the antenna head.

Caution • When fixing the coaxial cable of the antenna, do not tighten it so much that the coaxial cable is deformed.
(This may affect the characteristics.)

- 11 -

● LED Display

- The LED display during operation indicates the status as shown in the table below.

Reader/Writer status	Power LED	Status LED
Power Off	Off	Off
Starting	Red	Green
Normal Startup	Awaiting Command	Initial state
	Other (*2)	Red previous state (*4)
Processing Command	All commands	Red Orange (*1)
Processing Command Complete	Tag command com. OK	Red Green
	Tag command com. NG	Red Red
System command	System command (*3)	Red previous state (*4)

(*1) The status display is a two-color LED, so when green and red light up at the same time, it will turn orange.
I can see it.

(*2) When waiting for a command (other than the initial state), the previous state is maintained.

(*3) System commands are not subject to display of execution results.
(Protocol settings, processing time acquisition, RSSI acquisition, etc.)

(*4) The previous state is the communication result of tag-related commands and follows the retention period set in EEPROM.

• Set in the parameter "Tag communication result LED status display retention time".

• The communication result display will turn off after the retention period has elapsed.

- 12 -

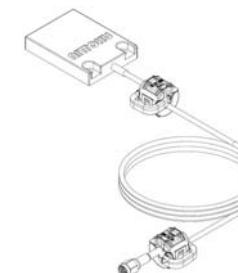
● About the Antenna

● Small antenna (ITS-HAN10R)

- An angled relay adapter can be inserted into this antenna.



● Medium-sized planar antenna (ITS-HAN60S)



Caution • Do not connect any antenna other than that specified, as this may cause a malfunction.

● About the tag

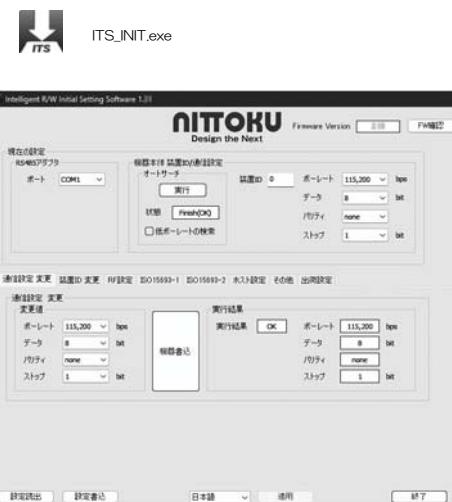
ISO15933 compliant tags can be used.

Our ITS Series Tags

- ITS-HTG21F52K
- ITS-HTG61F52K

● Intelligent reader / writer initialization software

- To set up the reader/writer initially, use the following PC software. The device ID is set using this software. For detailed operating instructions, refer to the "Intelligent Reader/Writer User's Manual."



- 13 -

- 14 -

- 15 -

- 16 -