



ENY Users' Manual

Business Development Center
Industrial Solutions Company
Panasonic Corporation

About This Manual

This document is the users' manual for "ENY" system, which consists of the "ENY button" (RF transmitter) and "ENY receiver" (the RF receiver).

The following items are described in the document.

- System configuration
- How to operate
- Communication Interface

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 CAUTION

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 transmitter must not be co-located or operated in conjunction with any other antenna or transmitter.

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment and meets the FCC radio frequency (RF) Exposure Guidelines. This equipment has very low levels of RF energy that is deemed to comply without maximum permissive exposure evaluation (MPE).

Product Description

The ENY system is a system that collects the customer's experience of service satisfaction and customer opinions, and feeds the results back to the store manager.

Press the ENY button in response to the questions presented and your opinion will be sent wirelessly. ENY receiver sends the received data to the cloud and aggregate it in the cloud.

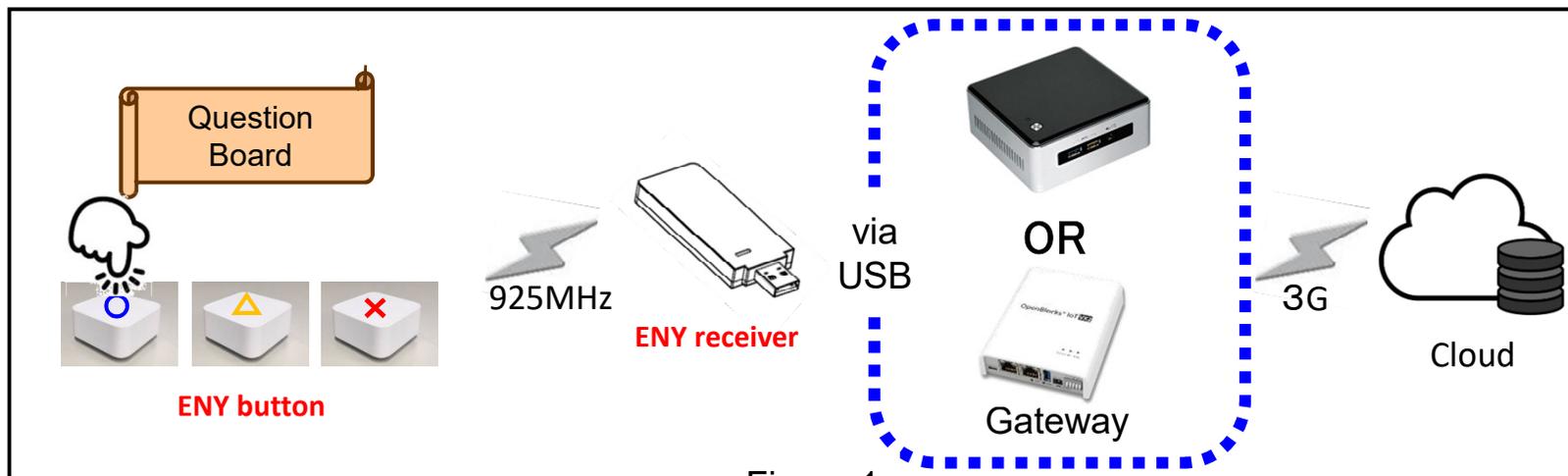


Figure 1

System Configuration

The configuration of “ENY” system is shown in Figure 1.

Pressing the “ENY button” generates electricity and become active for a while (less than 45[ms]).

During the active time the button can transmit RF signal.

The “ENY receiver” should be plugged into the gateway via USB and recognized as Virtual COM port.

The receiver can communicate with the “ENY button” while the button is active.

The operation is done in Sub-GHz (925MHz) and the protocol is “ENY” original.

“ENY button” does not need the power supply, and “ENY receiver” requires 5V via USB.

The ID of the connected “ENY button” will be output on the terminal software (Putty, Teraterm etc.).

The application should be implemented in the gateway to be triggered by the signal from “ENY button”.

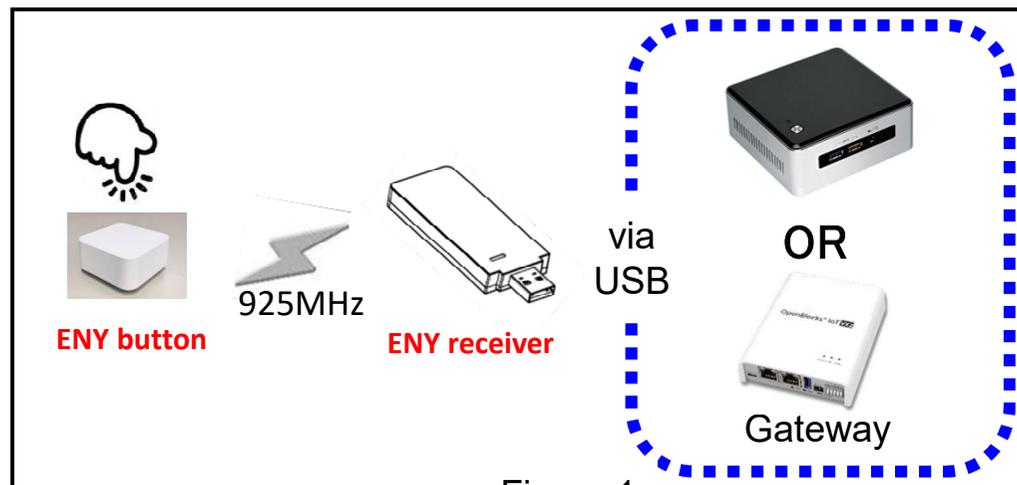


Figure 1

Sequence Between Button And Receiver

The sequence between “ENY button” and “ENY receiver” is shown in Figure 2. The button makes three times of ID transmission at a maximum. By changing the second and third retransmission timings, wireless communication collisions are avoided and communication reliability is improved.

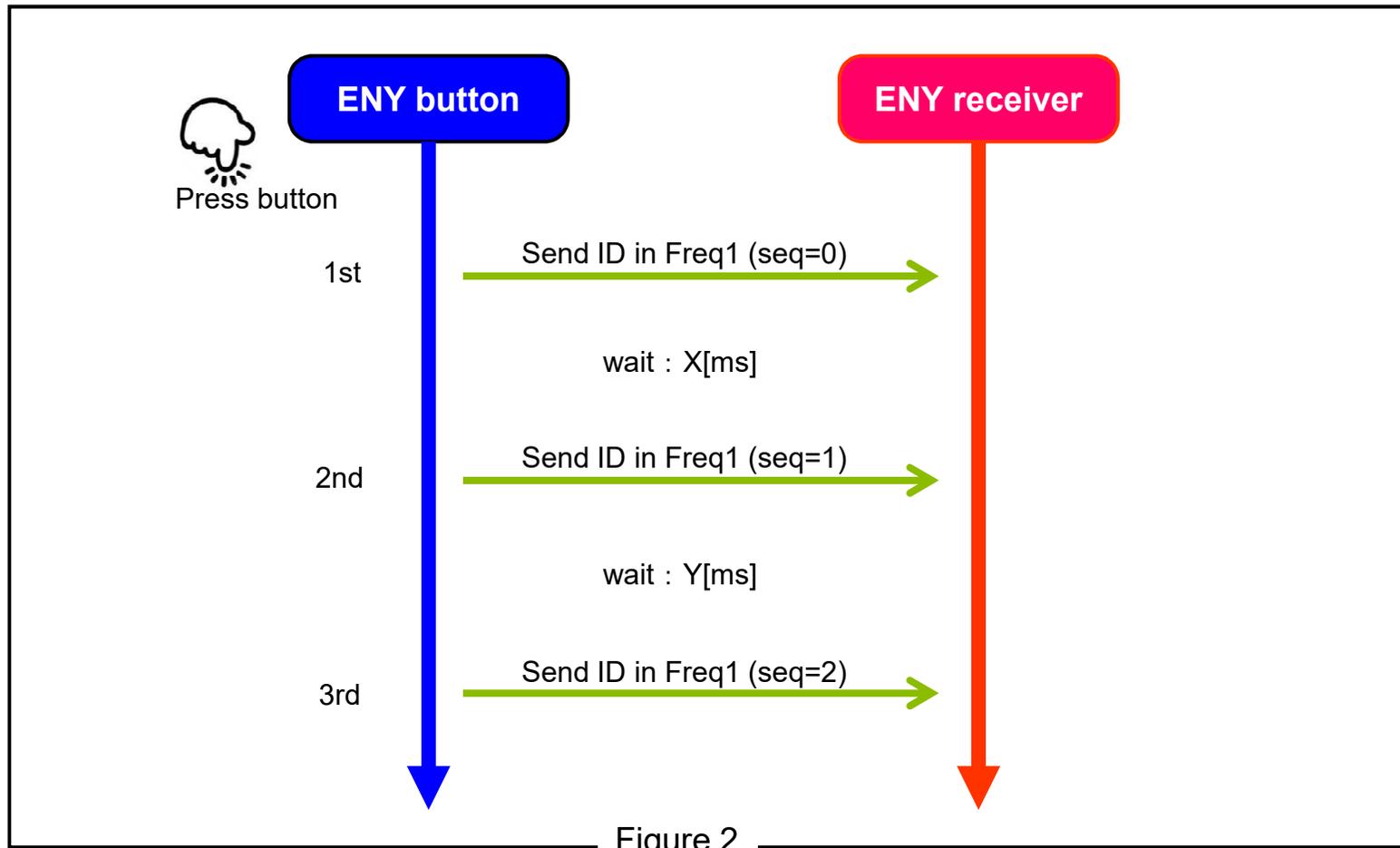


Figure 2

Communication I/F In Host Computer

Command I/F between “ENY receiver” and the PC is shown in Figure 3.

Command:

Command	Description	Parameter	Response	Note
get_id	Shows the RX ID.	-	[RX_ID]	
ver	Shows the FW version.	-	<Eny Version: 10.00.00>	

Figure 3

Note:

- Receiver outputs the button information in ASCII text via USB when it receives the signal successfully.
e.g. [Button ID] [Sequence No.] [Cumulated No.] [Channel No.] [RSSI]

Communication I/F In Host Computer

Serial port settings :

Speed	:115200	[bps]
Data bits	:8	[bits]
Stop bits	:1	[bit]
Parity	:None	
Flow control	:None	

Setting example (PuTTY):

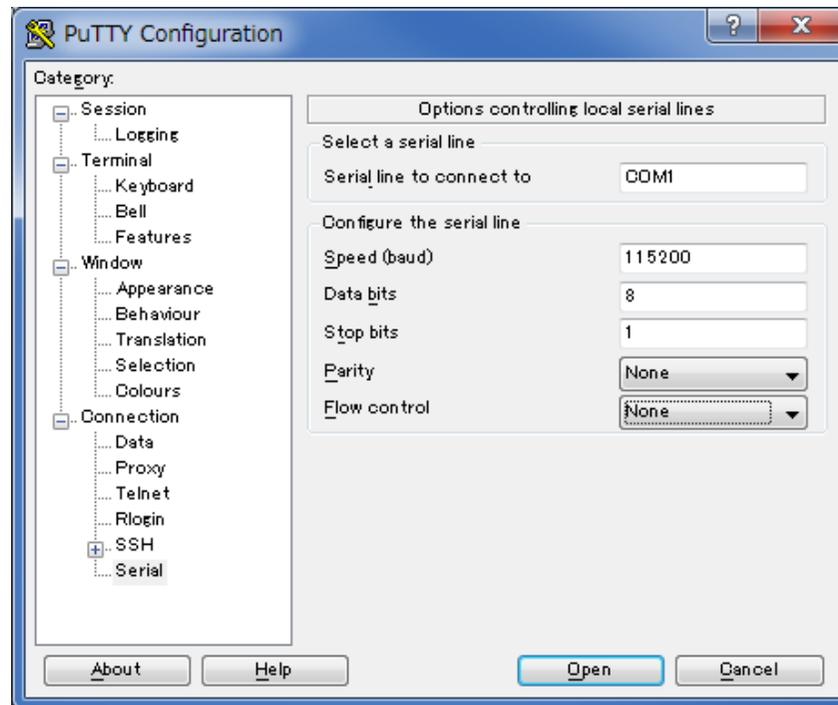
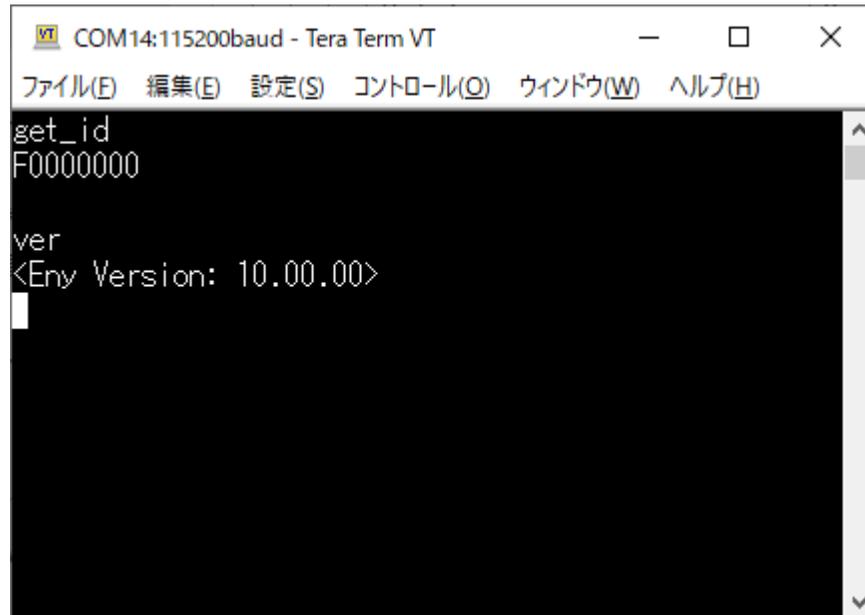


Figure 4

Communication I/F In Host Computer

Command execution examples :

A screenshot of a terminal window titled "COM14:115200baud - Tera Term VT". The window has a menu bar with Japanese options: ファイル(F), 編集(E), 設定(S), コントロール(C), ウィンドウ(W), ヘルプ(H). The terminal content shows the command "get_id" being executed, resulting in the output "F0000000". Below that, the command "ver" is entered, and the output is "<Eny Version: 10.00.00>". A white cursor is visible on the line following the output.

```
COM14:115200baud - Tera Term VT
ファイル(F) 編集(E) 設定(S) コントロール(C) ウィンドウ(W) ヘルプ(H)
get_id
F0000000
ver
<Eny Version: 10.00.00>
```

⇒Get ID command

⇒ver command

Figure 5

LED Status On “ENY receiver”

LED status on “ENY receiver” is shown in Figure 6.

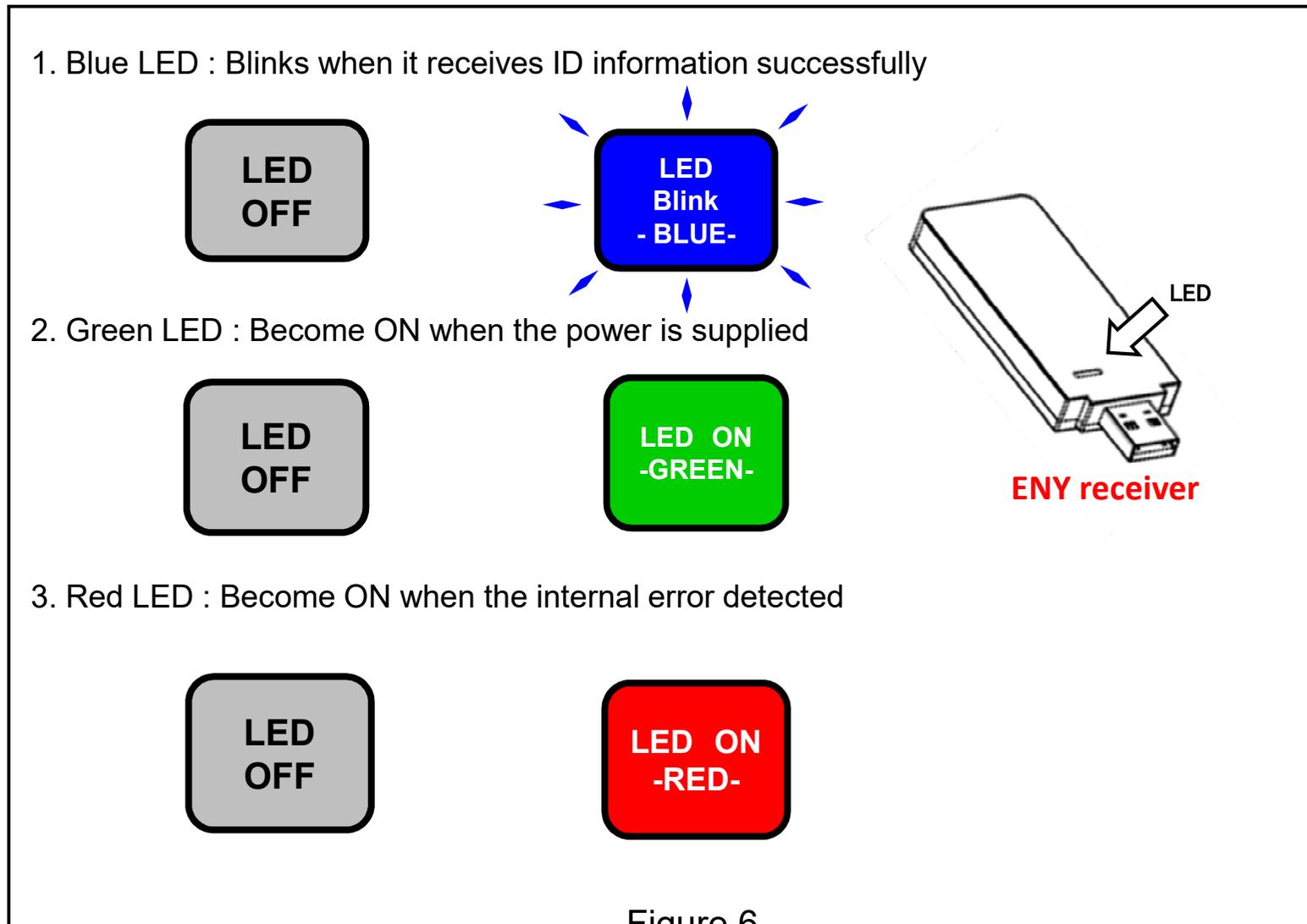


Figure 6

Disclaimer

Please note that the information or the program it in this document may be changed or updated without notice. For any damages caused by these changes and updates, we are not responsible.