



NZR-O121

(Wireless Digital Relay)

User's Manual

Revision 1.0

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1. Overview

NZR-O121 is ZigBee relay to provide more wide coverage for ZigBee communication between ZigBee module and concentrator.

Product Applications

- AMR System
- Home Network System
- Real Time Location Bases Service (LBS) System
- ZigBee Speedlinem Service System
- Other Remote AMR and Control System
- Status Indication
 - * LED 1 : ZigBee Standby Status (Light On)
 - * LED 2 : Network Scan(Light On and Off) or Join(Light On)
 - * LED 3 : Power (Light On)






General Specification

ZigBee Interface	Async logic level / ZigBee Module (EM357)
Power Consumption @ 230V/50Hz	Normal : 0.55W
	EDLC Charging : 2.56W
	Tx mode : 1.70W
ZigBee Antenna	2.4Ghz 4dBi Omni-directional Dipole Antenna (waterproof)
Operating Temp./Humidity	-40~+70℃ / 10~95%
Storage Temp./Humidity	-40~+80℃ / 10~95%
EEPROM	1024Kb X 2
Operating time when outage	10 minutes
IP Grade	IP 67
Weight (g)	1800g
Size (mm)	148(W) X 246(D) X 124(H)
AC Mains Input	AC130~253V, 50Hz

RF Specification

Frequency Range	2.4000 ~ 2.4835 GHz
Standard	IEEE Std. 802.15.4
Max output power(EIRP Standard)	25 dBm
Receive Sensitivity	Below -100 dBm







1.1 Appearance

Cover out	
Top	
Front	
Side	
Bottom	

2. NZR-O121 Contents

NZR-O121 comprises:

- NZR-O121 Relay
- ZigBee Antenna
- Wall mounting anchor
- Wall mounting screw
- Antenna joint wrench
- Quick seal

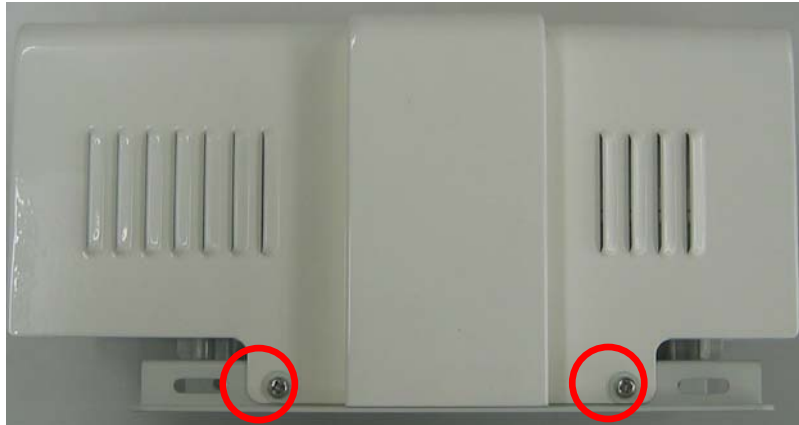
NZR-O121 Relay(1EA)	
ZigBee Antenna(1EA)	
Wall mounting anchor (4EA)	
Wall mounting screws (4EA)	
Antenna joint wrench (1EA)	
Quick seal (1EA)	

[Figure 2-1] NZR-O121 Contents

3. Installation

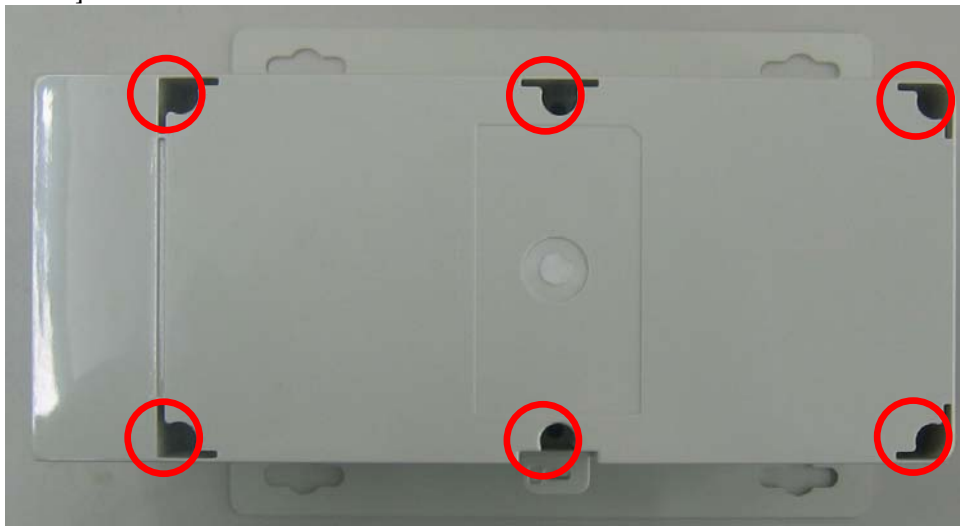
3.1 RF Cable Connection

Remove 4 screws from the metal cover of the Relay using a screwdriver to open as shown in the [Figure3-1].



[Figure 3-1] Open the metal cover

Remove 6 screws from the top cover of the Relay using a screwdriver to open as shown in the [Figure3-2].



[Figure 3-2] Open the top cover

Remove the PE Form as shown in the [Figure3-3].



[Figure3-3] Remove the PE Form

Remove the Antenna nut as shown in the [Figure3-4].

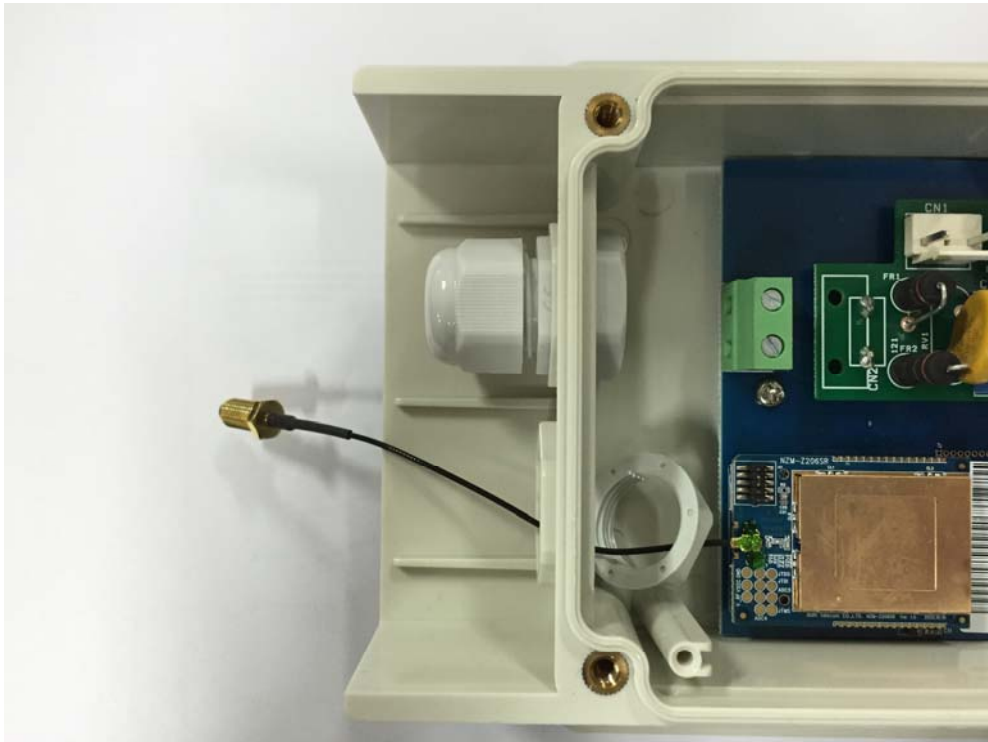


[Figure3-4] Remove the Antenna nut

Use the reverse pole Type.

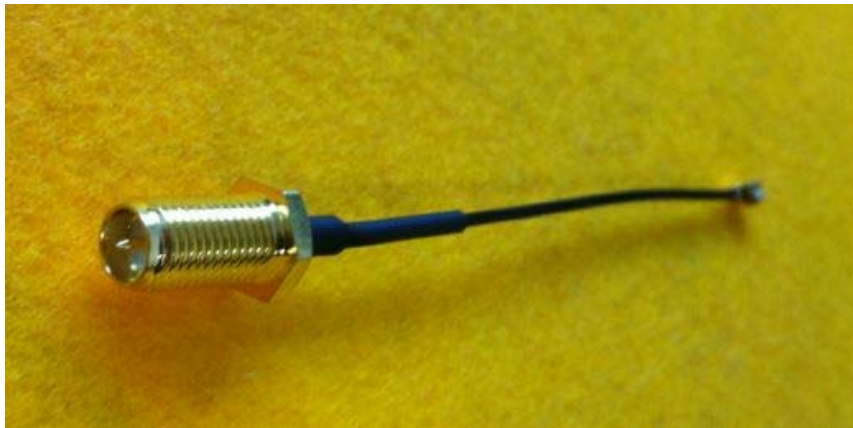


Place the antenna nut and Remove the black cap as shown in the [Figure3-5].
(RF cable should pass through the nut)

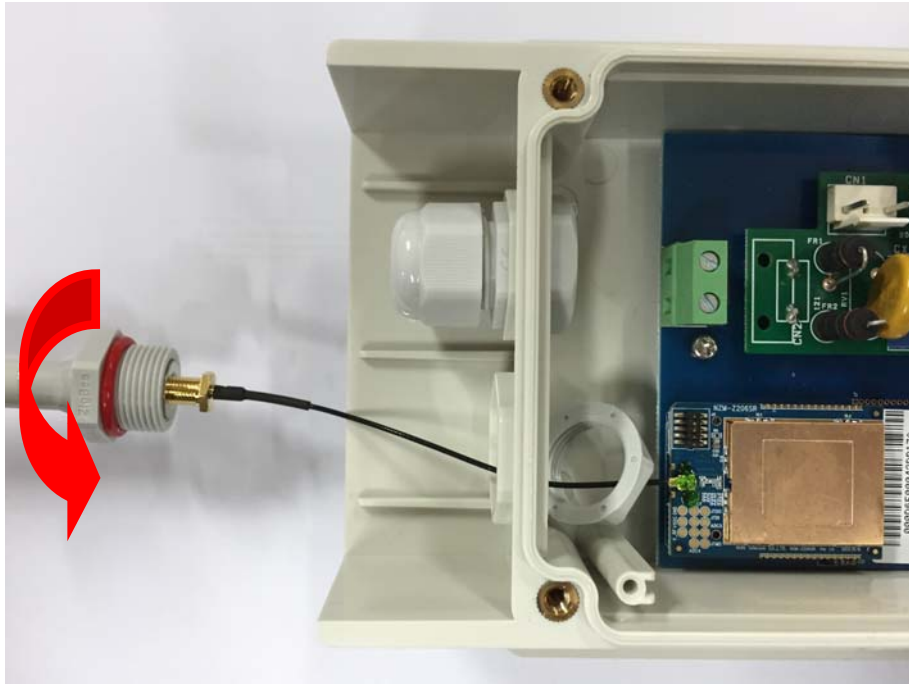


[Figure3-5] RF cable connection_1

Use the reverse pole Type.

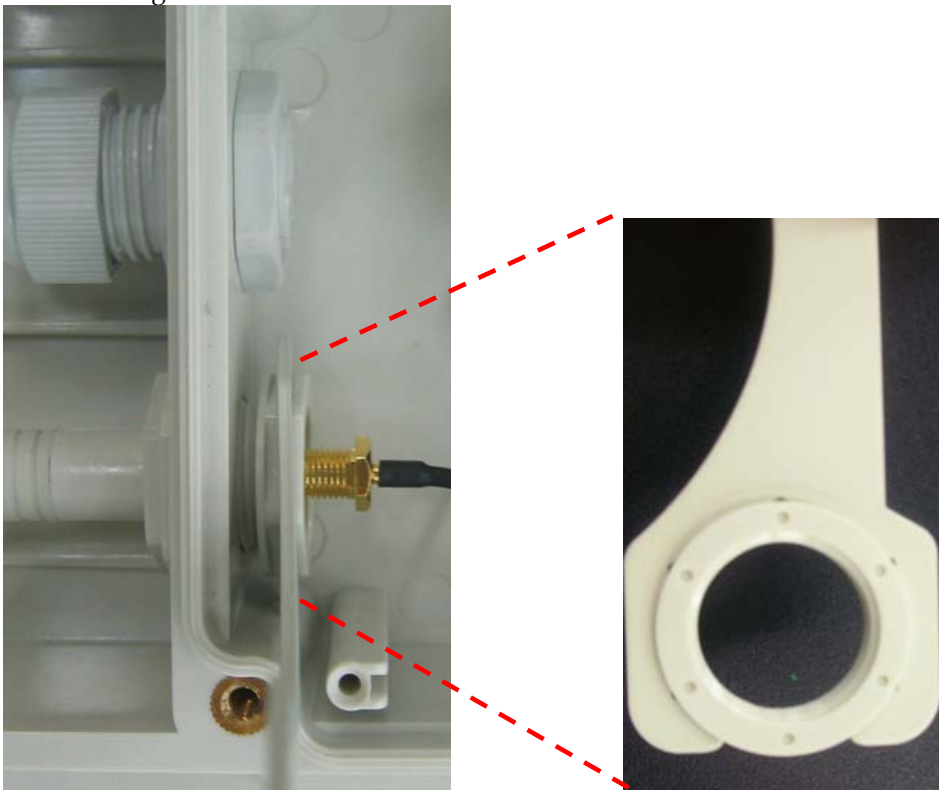


Connect Antenna to RF cable (RF cable should not be twisted)



[Figure3-6] RF cable connection_2

Fasten the nut using wrench.



[Figure3-7] RF cable connection_3



[Figure3-8] RF cable connection_4

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.

CAUTION : This equipment complies with FCC and IC radiation exposure limits set forth for an uncontrolled environment. This equipment shall be installed and operated with minimum distance 20cm between the radiator and your body. This transmitter must not be re-located or operating in conjunction with any other antenna or transmitter.

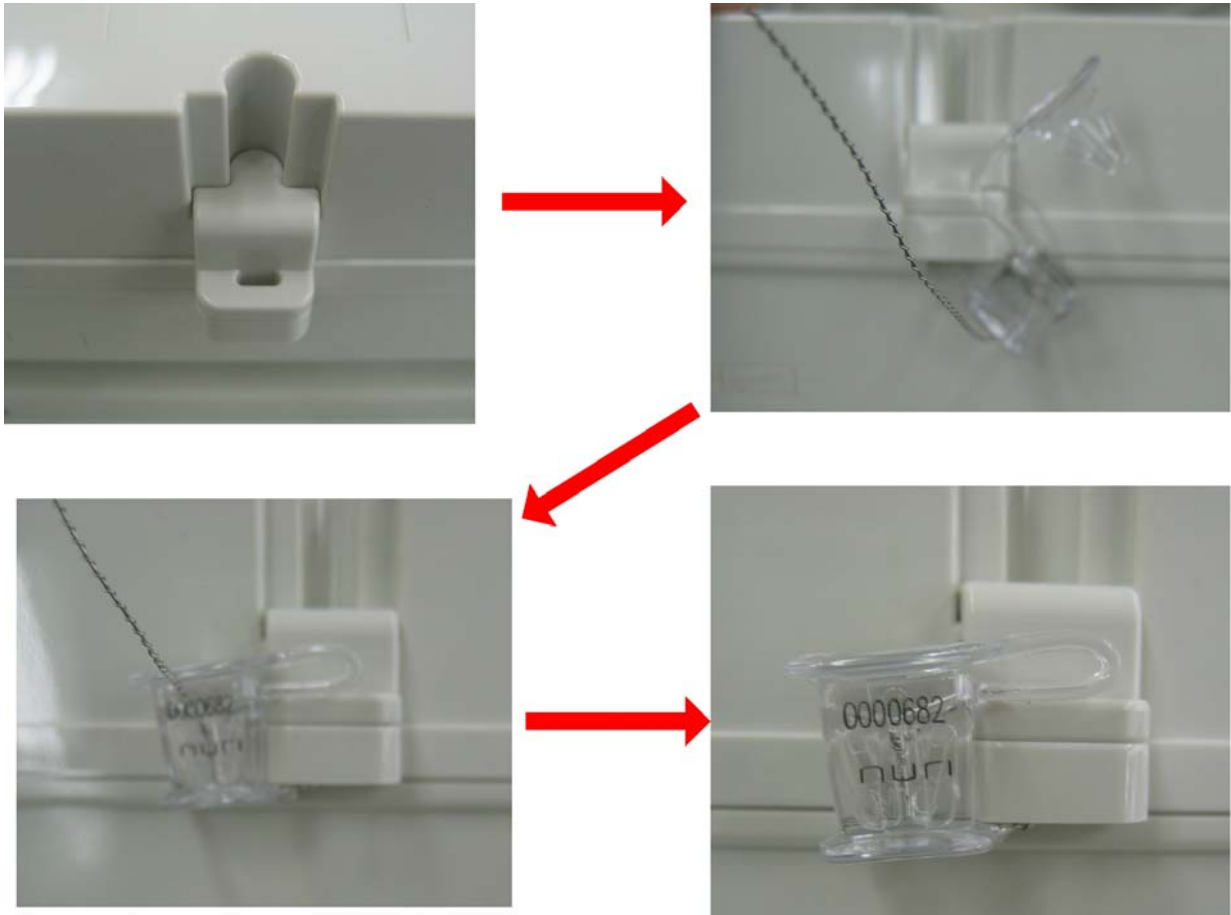
※ In order to prevent to be installed the other product of antenna, it made the connection part by a hexagonal shape. In Addition, it can not be changed after covering metal case.

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

3.2 Close metal/top cover

Close the top cover removed in “3.1 RF Cable Connection” section and screw up 6 screws.

Before closing the metal cover, quick seal must be installed.



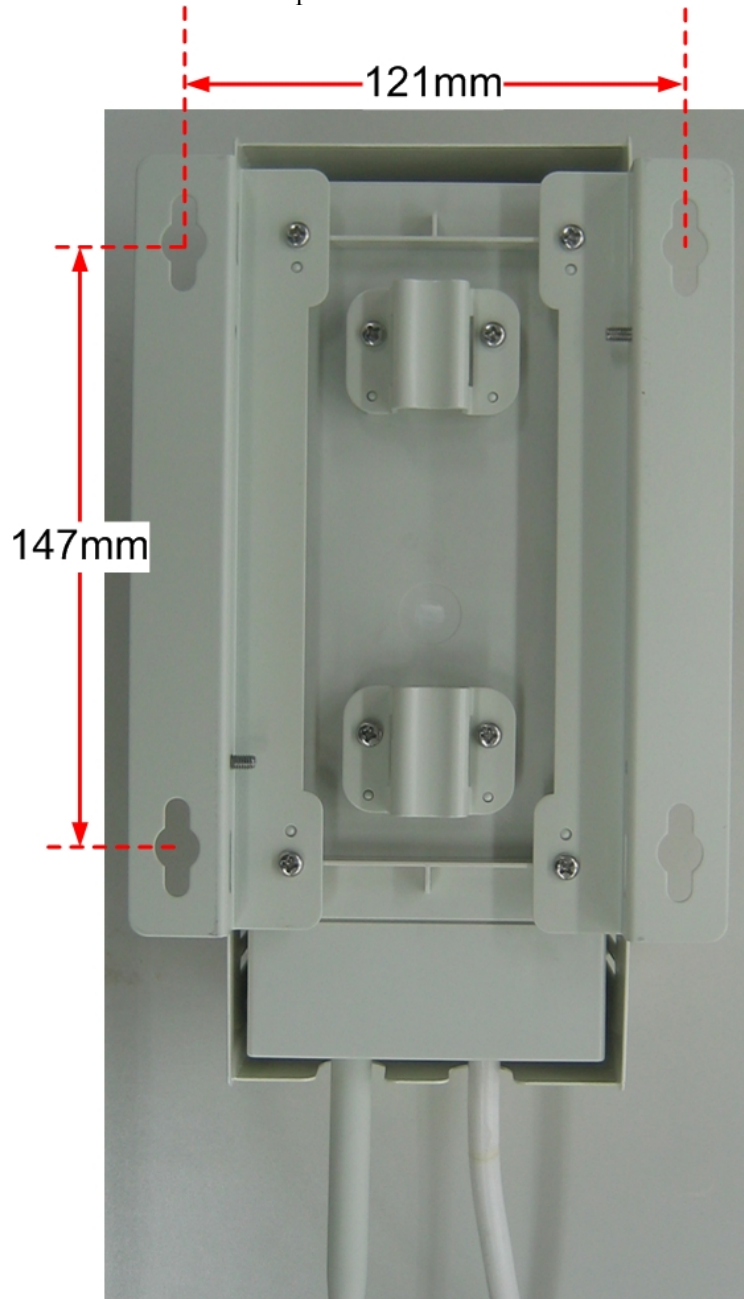
[Figure3-9] Sealing procedure

Close the metal cover removed in “3.1 RF Cable Connection” section and screw up 4 screws.

3.3 Mounting NZR-O121

After connecting antenna and AC cable, mount NZR-O121

- Mark four points with 147mm vertical and 121mm horizontal span.
- Screw down four self drilling screws on the wall or proper place.
- Hang NZR-O121 on the screws and pull it down.

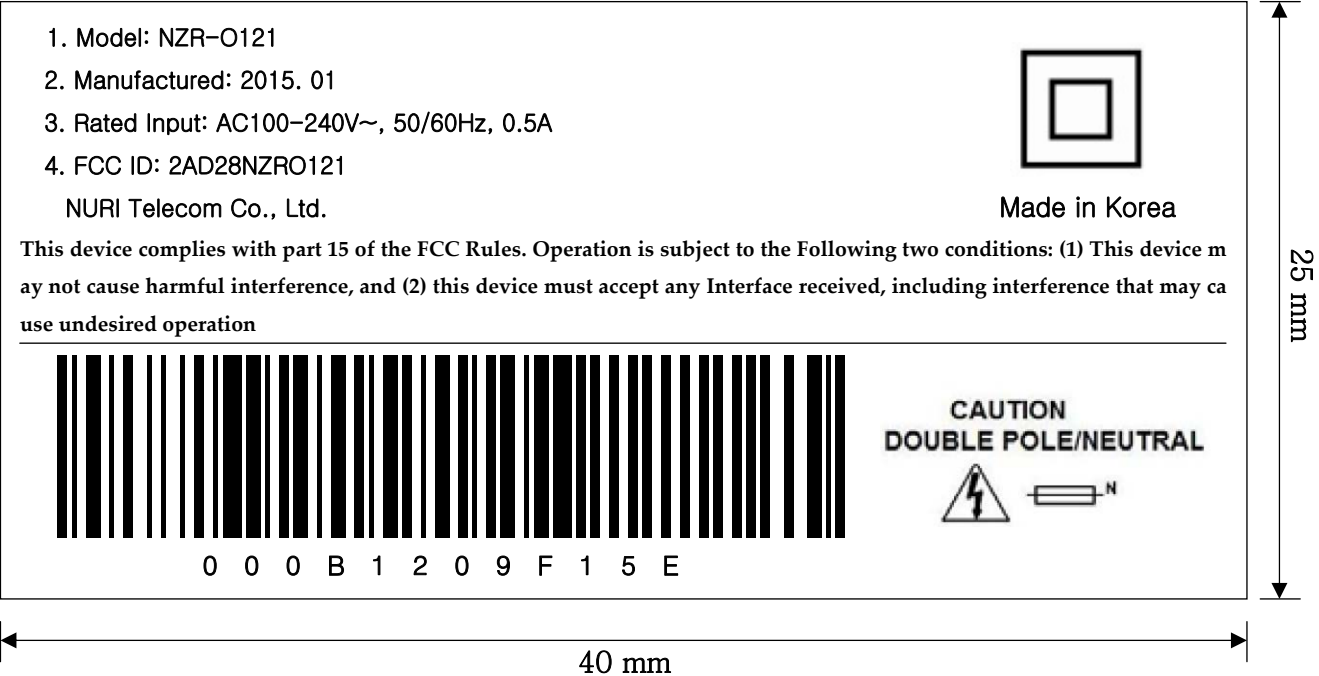


[Figure3-10] Mounting and span

※ For pluggable equipment, the socket-outlet shall be installed near the equipment and shall be easily accessible.

※ for PERMANENTLY CONNECTED EQUIPMENT, a readily accessible disconnect device shall be incorporated external to the equipment. (Maximum Rating : AC250V/0.5A)

4 .LABEL



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 Interface received, including interference that may cause undesired operation