

# ACC-NM1Z1-01H8 ACC-NM1Z1-01H8B

## Exp. Networking Interface Module

- *Intel® i350-AM4 Ethernet Controller*
- *8x GbE Hybrid (4x RJ-45 + 4x SFP)*  
*(Model: ACC-NM1Z1-01H8)*
- *8x GbE Hybrid (4x RJ-45 w/ 2-pair Bypass + 4x SFP)*  
*(Model: ACC-NM1Z1-01H8B)*

## User Manual

Acrosser Technology Co., Ltd.  
[www.acrosser.com](http://www.acrosser.com)

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## Purpose

This document is intended to provide the information about the features and use of the product.

## Audience

The intended audiences are technical personnel, not for general audiences.

**Ver: 100-001**

**Date: Mar. 28, 2017**

**To read this User Manual on your smart phone, you will have to install an APP that can read PDF file format first. Please find the APP you prefer from the APP Market.**

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# 1. Introduction

The ACC-NM1Z1-01H8 or ACC-NM1Z1-01H8B is an 8-port GbE LAN module designed for networking applications.

## 1.1. Specifications

### Model: ACC-NM1Z1-01H8

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<b>LAN Controller</b>	<ul style="list-style-type: none"><li>• Intel i350 AM4</li></ul>
<b>LAN Port</b>	<ul style="list-style-type: none"><li>• 4x SFP</li><li>• 4x RJ45</li></ul>
<b>OS Support</b>	<ul style="list-style-type: none"><li>• Linux Kernel 4.4 above, (64-bit)</li></ul>
<b>Dimension</b>	<ul style="list-style-type: none"><li>• 72.0 mm(W) x 38.8 mm(H) x 200.0 mm(D)</li></ul>
<b>Storage Temperature</b>	<ul style="list-style-type: none"><li>• -20 ~ 80°C (-4 ~ 176°F)</li></ul>
<b>Relative Humidity</b>	<ul style="list-style-type: none"><li>• 0 ~ 90% @40°C, non-condensing</li></ul>

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### Model: ACC-NM1Z1-01H8B

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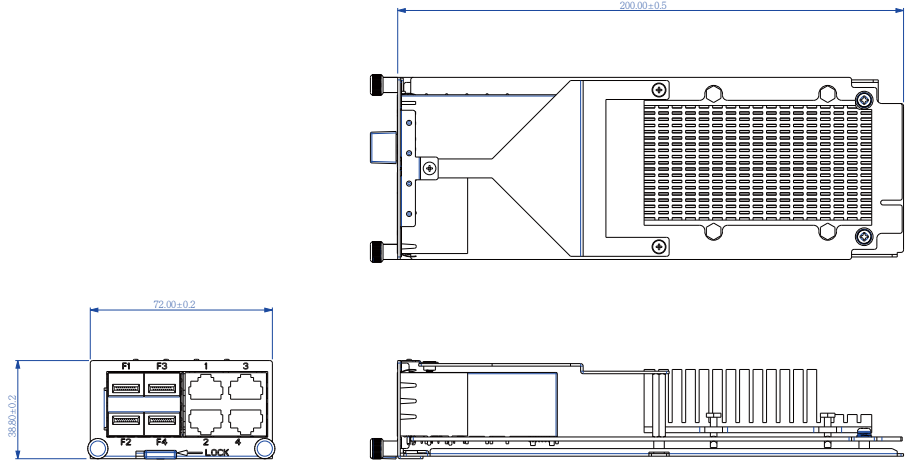
<b>LAN Bypass</b>	<ul style="list-style-type: none"><li>• Microchip PIC16F687 with Latching Relay</li><li>• 2-pair LAN Bypass control per 1pcs PIC (BP1: LAN1-LAN2, BP2: LAN3-LAN4)</li></ul>
<b>LAN Controller</b>	<ul style="list-style-type: none"><li>• Intel i350 AM4</li></ul>
<b>LAN Port</b>	<ul style="list-style-type: none"><li>• 4x SFP</li><li>• 4x RJ45</li></ul>
<b>OS Support</b>	<ul style="list-style-type: none"><li>• Linux Kernel 4.4 above, (64-bit)</li></ul>
<b>Dimension</b>	<ul style="list-style-type: none"><li>• 72.0 mm(W) x 38.8 mm(H) x 200.0 mm(D)</li></ul>
<b>Storage Temperature</b>	<ul style="list-style-type: none"><li>• -20 ~ 80°C (-4 ~ 176°F)</li></ul>
<b>Relative Humidity</b>	<ul style="list-style-type: none"><li>• 0 ~ 90% @40°C, non-condensing</li></ul>

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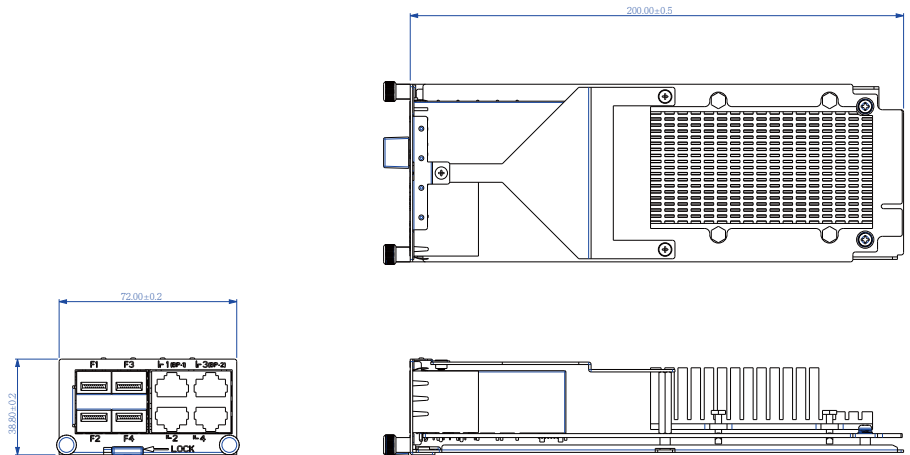
## 1.2. Layout & Dimension

(Unit: mm)

Model: ACC-NM1Z1-01H8



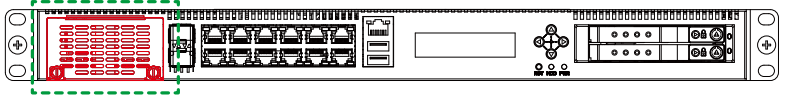
Model: ACC-NM1Z1-01H8B



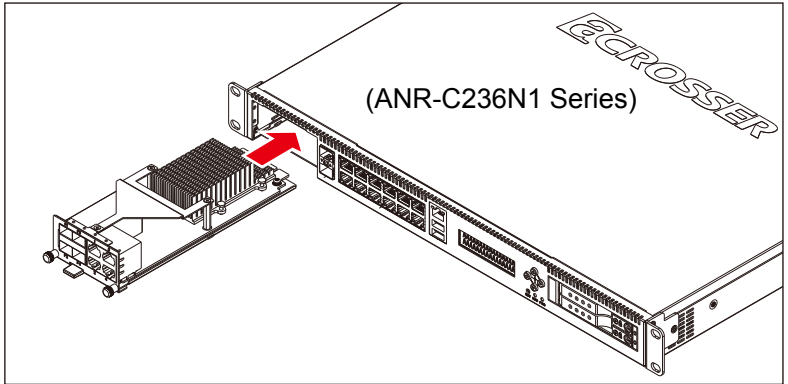
## 1.3. System Insertion

To install the LAN module into the ANR-C236N1 system:

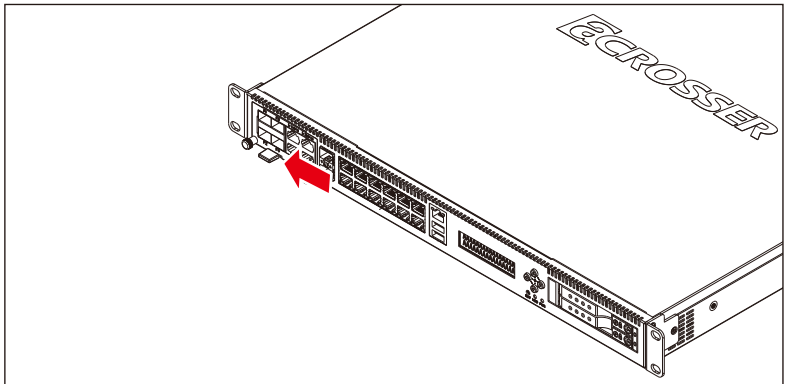
Step 1: Remove the plate that originally covers the **Module A** slot on ANR-C236N1 system.



Step 2: Insert the LAN module into the **Module A** slot on ANR-C236N1 system.



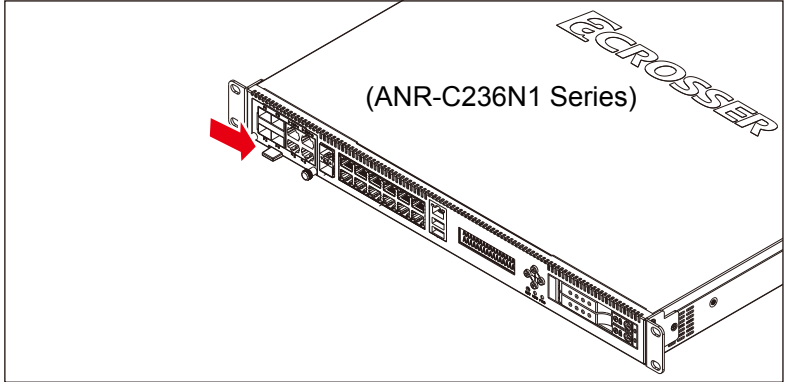
Step 3: Push the locker left to lock the board into system.



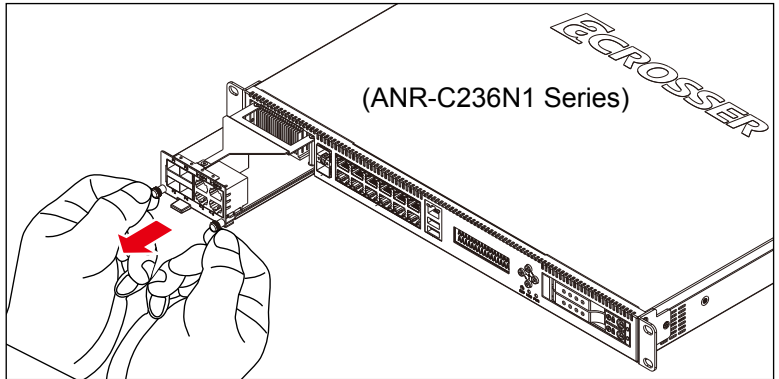
## 1.4. System Extraction

To uninstall the LAN module from the ANR-C236N1 system:

Step 1: Push the locker right to loosen the board.



Step 2: Grab both knobs of the LAN module. Carefully pull the board out of the slot. Do not drop the board.





# 1.5. Connectors/Indicators Pin/Color Definition

## 4-port SFP, 4-port RJ45 Connectors

**Model: ACC-NM1Z1-01H8**

**Model: ACC-NM1Z1-01H8B**

LED	Status	10Mbps	100Mbps	1000Mbps
<b>UPPER LED1</b> <b>LOWER LED1</b>	Link	Green	Green	Green
	Active	Blinking	Blinking	Blinking
<b>UPPER LED2</b> <b>LOWER LED2</b>	Speed	Off (RJ45) N/A (SFP)	Yellow (RJ45) N/A (SFP)	Green

## 2. Software Installation and Programming Guide

### 2.1. Introduction

#### 2.1.1. Environment

This test utility develop base on kernel 4.4 & above (Ubuntu 16.10 Server 64bit).

#### 2.1.2. LAN Bypass Subsystem

Four pairs of LAN ports on NM1Z1-01H8B implement the bypass function. Users can invoke the LAN Bypass APIs to control the bypass states of the LAN ports.

1. Get bypass firmware version.
2. Set bypass wdt.
3. Set bypass wdt action.
4. Get bypass wdt action.
5. Set bypass power on action.
6. Get bypass power on action.
7. Set bypass power off action.
8. Get bypass power off action.
9. Set bypass current action.
10. Get bypass current action.

### 2.2. File Descriptions

#### 2.2.1. LAN Bypass

##### 1. TestUtility.exe

The Watchdog, LAN Bypass Subsystem, Power Supply Unit LCM Control Module and chassis open. Graphic user interface bin binary.

##### 2. acrosserlib.h

This file includes the declarations of the APIs and macro definitions.

##### 3. libacrosser.a

The static library for linux.

##### 4. libacrosser.so

The dynamic library for linux.

### 5. Install\_driver

This file is linux shell script file, run this can help you install environment and modprobe driver on linux.

### 6. readme

Use this utility first, please read readme first.

## 2.3. API List and Descriptions

### 2.3.1. LAN Bypass Subsystem

<b>Syntax:</b>	<b>int lib_init(void)</b>
<b>Description:</b>	Using the library before, must be call this function first.
<b>Parameters:</b>	None.
<b>Return Value:</b>	0: Successful, -1: fail.

<b>Syntax:</b>	<b>int get_bypass_firmware_ver(int module, char *ver)</b>
<b>Description:</b>	This function can get which module, bypass firmware version and data to save in char pointer.
<b>Parameters:</b>	module:1-3, 1:Module A slot, 2:Module B slot, 3:Module C slot, char *ver: char pointer, this pointer to 7 character array.
<b>Return Value:</b>	0: Successful, -1: fail.

<b>Syntax:</b>	<b>int set_bypass_wdt(int module, int pair, int time)</b>
<b>Description:</b>	This function can set which module and which pair bypass Wdt timer.
<b>Parameters:</b>	module:1-3, 1:Module A slot, 2:Module B slot, 3:Module C slot, pair: 1-4, time: 1-255(sec), 0:stop.
<b>Return Value:</b>	0: Successful, -1: fail.

<b>Syntax:</b>	<b>int set_bypass_wdt_action(int module, int pair, int action)</b>
<b>Description:</b>	This function can set which module and which pair bypass Wdt time up action.
<b>Parameters:</b>	module:1-3, 1:Module A slot, 2:Module B slot, 3:Module C slot, pair: 1-4, action: 0:bypass, 1:normal.
<b>Return Value:</b>	0: Successful, -1: fail.

<b>Syntax:</b>	<b>int get_bypass_wdt_action(int module, int pair)</b>
<b>Description:</b>	This function can get which module and which pair bypass Wdt time up action.
<b>Parameters:</b>	module:1-3, 1:Module A slot, 2:Module B slot, 3:Module C slot, pair: 1-4.
<b>Return Value:</b>	0: bypass, 1: normal, -1: fail.

<b>Syntax:</b>	<b>int set_bypass_poweron_action(int pair, int action)</b>
<b>Description:</b>	This function can set which module and which pair bypass power on action.
<b>Parameters:</b>	module:1-3, 1:Module A slot, 2:Module B slot, 3:Module C slot, pair: 1-4, action: 0:bypass, 1:normal.
<b>Return Value:</b>	0: Successful, -1: fail.

<b>Syntax:</b>	<b>int get_bypass_poweron_action(int module, int pair)</b>
<b>Description:</b>	This function can get which module and which pair bypass power on action.
<b>Parameters:</b>	module:1-3, 1:Module A slot, 2:Module B slot, 3:Module C slot, pair: 1-4.
<b>Return Value:</b>	0: bypass, 1: normal, -1: fail.

<b>Syntax:</b>	<b>int set_bypass_poweroff_action(int module, int pair, int action)</b>
<b>Description:</b>	This function can set which module and which pair bypass power off action.
<b>Parameters:</b>	module:1-3, 1:Module A slot, 2:Module B slot, 3:Module C slot, pair: 1-4, action: 0:bypass, 1:normal.
<b>Return Value:</b>	0: Successful, -1: fail

<b>Syntax:</b>	<b>int get_bypass_poweroff_action(int module, int pair)</b>
<b>Description:</b>	This function can get which module and which pair bypass power off action.
<b>Parameters:</b>	module:1-3, 1:Module A slot, 2:Module B slot, 3:Module C slot, pair: 1-4.
<b>Return Value:</b>	0: bypass, 1: normal, -1: fail

<b>Syntax:</b>	<b>int set_bypass_current_action(int module, int pair, int action)</b>
<b>Description:</b>	This function can set which module and which pair bypass current action.
<b>Parameters:</b>	module:1-3, 1:Module A slot, 2:Module B slot, 3:Module C slot, pair: 1-4, action: 0:bypass, 1:normal.
<b>Return Value:</b>	0: Successful, -1: fail.

<b>Syntax:</b>	<b>int get_bypass_current_action(int module, int pair)</b>
<b>Description:</b>	This function can get which module and which pair bypass current action.
<b>Parameters:</b>	module:1-3, 1:Module A slot, 2:Module B slot, 3:Module C slot, pair: 1-4.
<b>Return Value:</b>	0: bypass, 1: normal, -1: fail.

<b>Syntax:</b>	<b>void lib_close(void)</b>
<b>Description:</b>	Don't use the library, must be call this function.
<b>Parameters:</b>	None.
<b>Return Value:</b>	None.

### **3. FAQ**

**Q 1. *Where can I find the serial number of this product?***

- The serial number (S/N) is a label printed with alpha-numeric character. You can find the S/N label on the bottom of this product or on its packing box.

## Technical Support Form

We deeply appreciate your purchase of Acrosser products. Please find the “**tech\_form.doc**” file in our utility CD. If you have any questions or problems about Acrosser products, please fill in the following information. We will answer your questions in the shortest time possible.

### Describe Your Info and Acrosser System Info

- Your Company Name: \_\_\_\_\_
- Your Contact Info: \_\_\_\_\_ Phone Number: \_\_\_\_\_
- Your E-Mail Address: \_\_\_\_\_
- Your Company Address: \_\_\_\_\_  
\_\_\_\_\_
- Acrosser Model Name: \_\_\_\_\_
- Acrosser Serial Number: \_\_\_\_\_

### Describe System Configuration

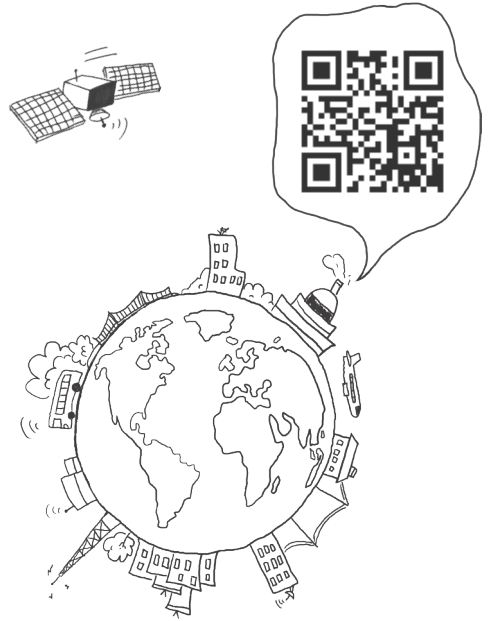
- CPU Type: \_\_\_\_\_
- Memory Size: \_\_\_\_\_
- Storage Device (e.g. HDD, CF, or SSD): \_\_\_\_\_
- Additional Peripherals (e.g. Graphic Card): \_\_\_\_\_
- Operating System & Version (e.g. Windows 7 Embedded): \_\_\_\_\_
- Special API or Driver: \_\_\_\_\_  
(If yes, please provide it for debug.)
- Running Applications: \_\_\_\_\_
- Others: \_\_\_\_\_

### Describe Your Problems or Questions:

### Send the above information to one of the following Acrosser contacts:

- Acrosser Local Sales Representative
- Acrosser Authorized Sales Channels
- Acrosser Inquiry --- <http://www.acrosser.com/inquiry.html>
- Acrosser FAX Number --- 886-2-29992887

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## **Acrosser Headquarters**

241新北市三重區光復路一段61巷26號10樓  
10F., No.26, Ln. 61, Sec. 1, Guangfu Rd.,  
Sanchong Dist., New Taipei City 241, Taiwan  
(R.O.C.)

TEL: +886-2-29999000

FAX: +886-2-29992887 / +886-2-29993960

## **Acrosser Taichung Office**

414台中市烏日區僑仁街8號10樓之1  
10F.-1, No.8, Qiaoren St., Wuri Dist.,  
Taichung City 414, Taiwan (R.O.C.)

TEL: +886-4-2337-0715

FAX: +886-4-2337-3422

## **Acrosser China Subsidiary**

深圳市欣扬通电子有限公司  
深圳市福田区车公庙泰然九路21号  
皇冠科技园3栋2楼 (邮编: 518040)  
2F., 3rd Building, Crown Science Park, No. 21,  
Tai-Ran 9th Rd., Che Gong Miao, Futian Dist.,  
Shenzhen, China (Postal: 518040)

TEL: +86-755-83542210

FAX: +86-755-83700087

## **Acrosser Nanjing Office**

欣扬通电子有限公司 南京办事处  
江苏省南京市江宁区天元东路228号504室  
(邮编: 211100)

Room 504, No. 228, Tian Yuan East Rd., Jiang  
Ning Dist., Nanjing City, Jiangsu Province, China  
(Postal: 211100)

Mobile: 13611932003

TEL: +86-025-86137002

FAX: +86-025-86137003

## **Acrosser Beijing Office**

欣扬通电子有限公司 北京办事处  
北京市昌平区沙河镇沙阳路巩华新村8号楼2单元  
1403室 (邮编: 102206)

Room 1403, Unit 2, Building 8, Gonghua Village,  
Shahe Town, Changping District, Beijing, China  
(Postal: 102206)

Mobile: 13311317329

## **Acrosser USA Inc.**

11235 Knott Ave. Suite A, Cypress, CA 90630, USA  
Toll Free: +1-866-401-9463

TEL: +1-714-903-1760

FAX: +1-714-903-5629