

M2-210

M.2(NGFF) Gigabit Ethernet Card

User's Manual

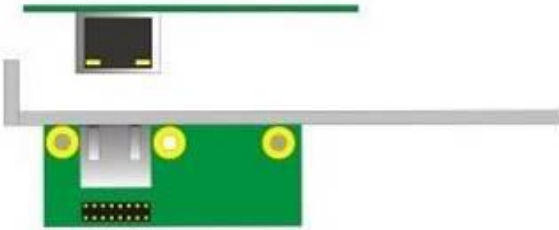
Edition 1.3
2019/08/06



Packing List:

Please check the package content before you starting using the card.

a.



1 x LAN Adapter
(BADPGLAND_A / 4120007011)
(Include Bracket)

b.



1 x Adapter LAN Cable
(OALGLAN-A-20 / 1040617)
(L=200mm)

c.



1 x CD Driver

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1 <Product Overview>

M2-210 IEEE* 802.3* M.2 A-E key module is the gigabit Ethernet solution. It enables a high performance, cost effective, low power.

Compliant with the standard IEEE 802.3 Ethernet interface for 1000BASE-T, 100BASE-TX, and 10BASE-T applications (802.3, 802.3u, and 802.3ab)

M2-210 module adopts Intel® Ethernet Controller I210 Family solution. The module design is based on the Intel® Ethernet Controller I210-AT.

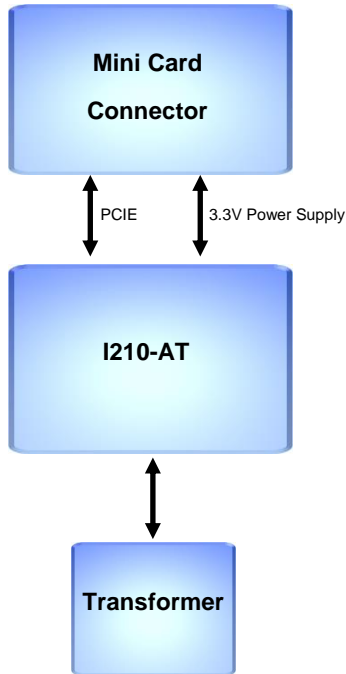
2 <Features>

- ◇ **Low power consumption and high performance**

- ◇ **2230 M.2 Card dimension**

- ◇ **M.2 Key A-E PCIe interface**

- ◇ **Support WOL**

3 <Block Diagram>

4 <Product Specifications>

Product Description

Host Interface	M .2
Controller	Intel® I210-AT Gigabit Ethernet Controller
M.2 key type	A-E key PCIe interface
Dimension	22mm x 30mm x 5.3mm (L x W x H)

Operating Conditions

Voltage	3.3V +/-5%
Temperature	0~60°C
Storage Temperature	-40~+85°C

General Specifications

Compliance	IEEE 802.3 Ethernet interface for 1000Base-T, 100Base-TX, and 10Base-T applications (802.3, 802.3u, 802.3ab).
Transfer Rate	1000 Mb/s, 100 Mb/s, or 10 Mb/s
Support OS	Win7 x32&x64, Win8 x32&x64, Win8.1 x32&x64, Win10 x32&x64, Win server 2012 R2. Linux (kernel versions 2.6.30 or newer)

4.1 < Recommended Operating Conditions >

Symbol	Parameter	Rating	Unit
Vdd33	I/O voltage	3.135~3.465	V

5 <Component Placement>

5.1 < Connector Reference >

M2-210:



Connector: CN_LAN1

Connector Type:

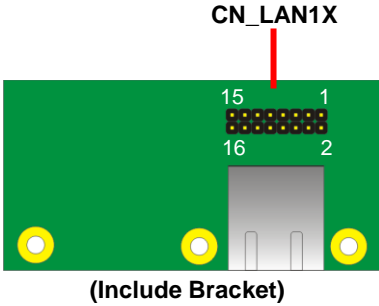
13-pin (13 x 1), pitch: 1.25 mm, DIP type

Straight P.C.B Connector



Pin	Description(LAN1)
1	RTD00+
2	RTD00-
3	RTD01+
4	RTD01-
5	RTD02+
6	RTD02-
7	RTD03+
8	RTD03-
9	GND
10	RLINK1G0-
11	RLINK1H0-
12	RLINK0-
13	RACTLED0-

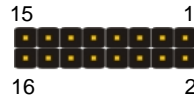
LAN Adapter:



CN_LAN1X

Connector Type:

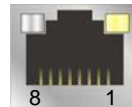
16-pin (8 x 2) 2.0 x 2.0 mm Straight Type Header



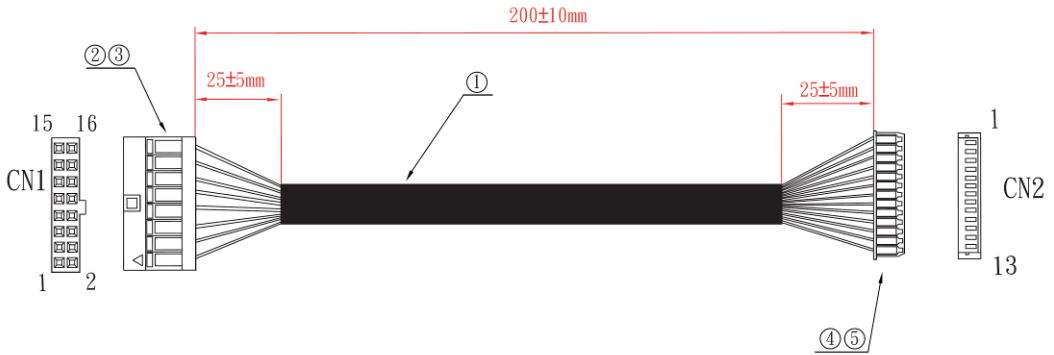
Pin	Description	Pin	Description
1	RTD0+	2	RTD1+
3	RTD0-	4	RTD1-
5	NC	6	GND
7	RTD2+	8	RTD3+
9	RTD2-	10	RTD3-
11	GND	12	GND
13	LINK1	14	Link100
15	ACTLED1	16	Link1000

Adapter LAN Connector: RJ45_1

RJ45 10/100/1000Mbps connector



Pin	1	2	3	4	5	6	7	8
Description	MDIO+	MDIO-	MDI1+	MDI2+	MDI2-	MDI1-	MDI3+	MDI3-

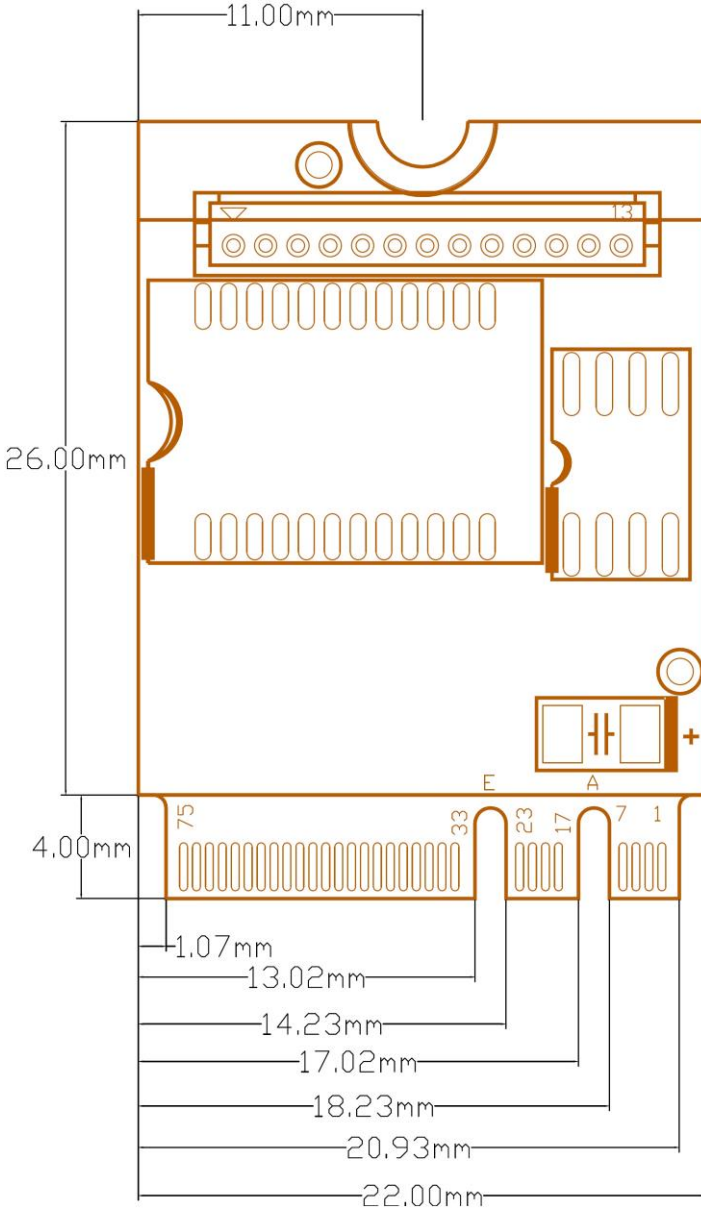
5.2 < Cable connection >


CN1	CN2	CN1	CN2
1	1	12	9
3	2	16	10
2	3	14	11
4	4	15	12
7	5	13	13
9	6		
8	7		
10	8		

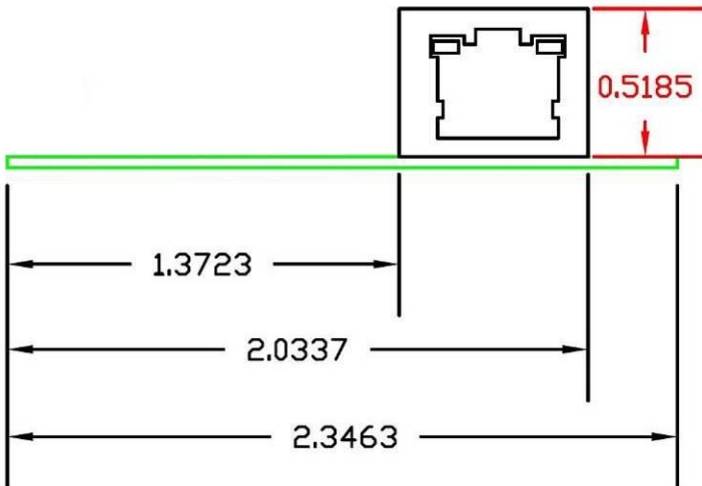
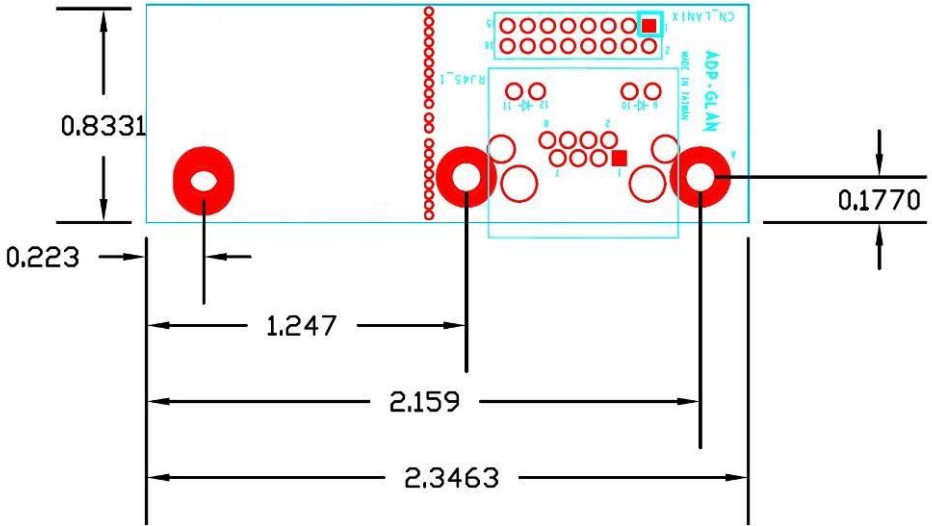
NO	DESCRIPTION	COLOR	Q' TY	UNIT
1	UL1571 28AWG		13	PCS
2	HOUSING DP2.0 2*8P	BLACK	1	PCS
3	TERMINAL DP2.0		13	PCS
4	HOUSING MOLEX1.25 13PIN	WHITE	1	PCS
5	TERMINAL MOLEX 1.25		13	PCS

6 <Mechanical Drawing>

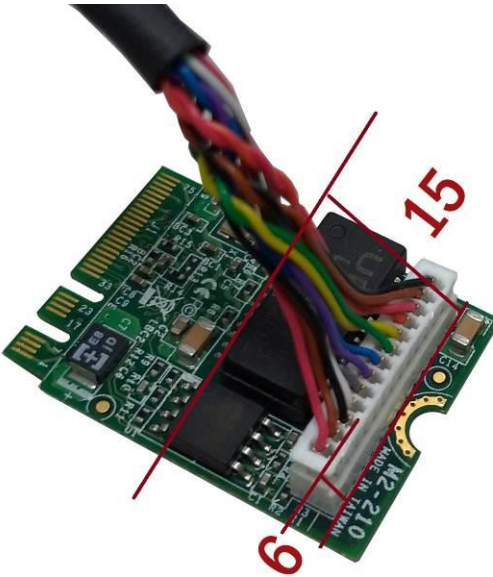
M2-210: (Units: mm)



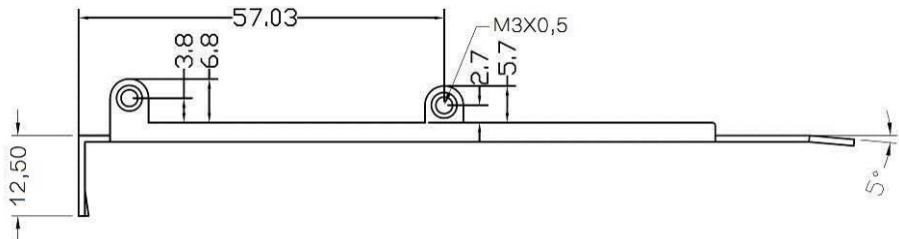
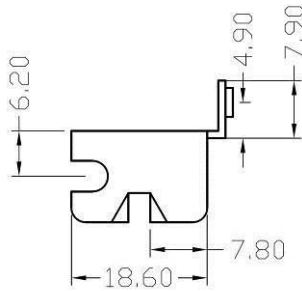
LAN Adapter: (Units: inch)

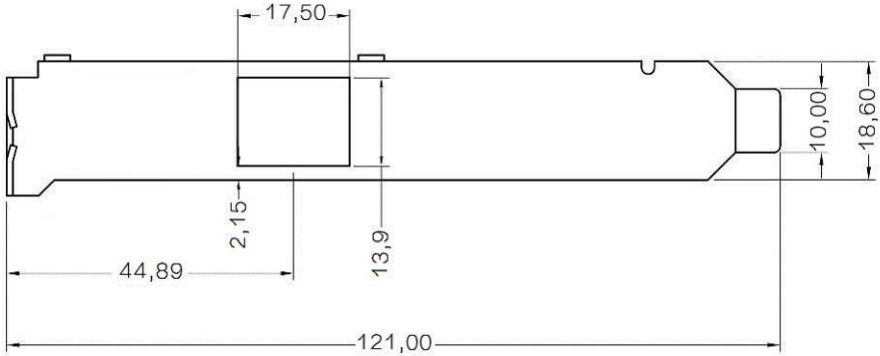


Mechanical height: (Units: mm)



Bracket: (Units: mm)





Contact information

Any advice or comment about our products and service, or anything we can help you please don't hesitate to contact with us. We will do our best to support you for your products, projects and business.

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