innodisk

Total Solution For
Embedded Peripherals

EGPL-G202

M.2 to dual isolated

GbE LAN Module

Customer:

Customer Part Number:

Innodisk Part Number:

Innodisk Model Name:

Date:

Innodisk Approver	Customer Approver

Table of Contents

REVISION HISTORY

Revision	Description	Date
1.0	First Released	Nov, 2020
1.1	Modify M.2 configure pin setting to follow state #2 configuration (SSD-PCIe device)	Dec, 2021
1.2	Update Product Name and Image	Jun , 2025

List of Tables

List of Figures

1. Product Introduction

1.1. Overview

Innodisk EGPL-G202 is designed with M.2 2280 form factor with B+M key, EGPL-G202 supports PCIe Gen 2.1 with a single lane to single isolated GbE LAN, optimized for higher performance and lower power, which brings you a flexible expansion solution for embedded systems.

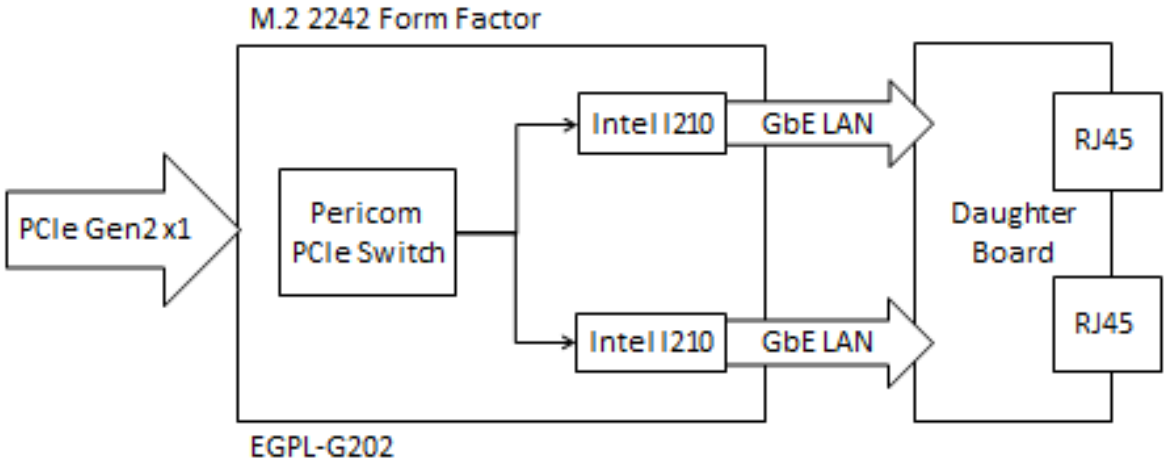


Figure 1: Block Diagram

1.2. Features

- Dual isolated GbE LAN ports
- Complies with EN61000-4-5 2kV Surge protection
- Complies with IEC 60950-1:2005 + A1: 2009 + A2:2013 2kV HiPOT protection
- Complies with EN61000-4-2 (ESD) Air-15kV, Contact-8kV
- Flexible daughter board with cable to fit into different system

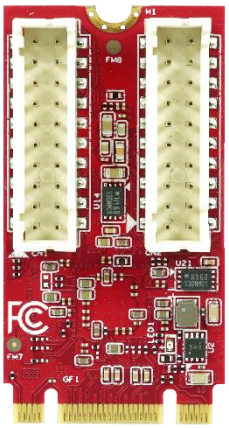


Figure 2: M.2 2242 Board Picture

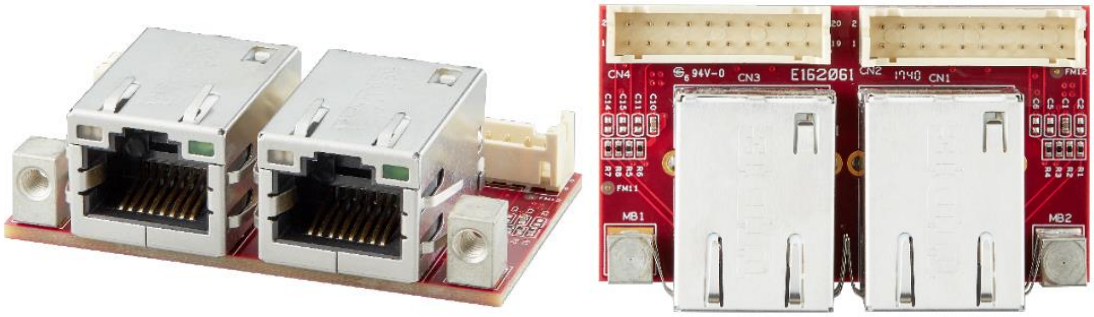


Figure 3: Mounting Hole Daughter Board Picture (EGPL-G202-C3/W3)

2. Product Specifications

2.1. Device Parameters

Table 1: Device Parameters

Form Factor	M.2 2242 B+M
Input I/F	PCI Express 2.1 x 1
Output I/F	GbE LAN x 2
Output Connector	RJ45 x 2
Dimension (WxLxH)	M.2 Board: 22 x 42 x 9.01 mm Daughter Board: 28 x 50 x 19.37

2.2. Electrical Specifications

2.2.1. Power Requirement

Table 2: Power Requirement

Item	Connector	Rating
Input voltage	M.2 Golden Finger	+3.3 DC +-5%

2.2.2. Power Consumption

Table 3: Power Consumption

Full Load (mA)	Voltage (V)
883	3.3

2.3. Environmental Specifications

2.3.1. Temperature Ranges

Table 4: Temperature Ranges

Temperature	Range
Operating	Standard Grade: 0°C to +70°C Industrial Grade: -40°C to +85°
Storage	-55°C to +95°

2.3.2. Humidity

Relative Humidity: 10-95%, non-condensing

2.3.3. Shock and Vibration

Table 5: Shock and Vibration

Reliability	Test Conditions	Reference Standards
Vibration	7 Hz to 2K Hz, 20G, 3 axes	IEC 68-2-6
Mechanical Shock	Duration: 0.5ms, 1500 G, 3 axes	IEC 68-2-27

2.3.4. Mean Time between Failure (MTBF)

Reliability prediction methodology provides the basis for reliability evaluation and analysis. The purpose of the prediction is to predict the life time of the product in units of failure rate and MTBF.

Table 6: Mean Time between Failure (MTBF)

Product	Condition	MTBF (Hours)
EGPL-G202-C3/W3	The analysis is at 25°C ambient temperature by Telcordia SR-332, Issues 4, Method I, Case 3 under Ground Benign, Controlled environment, 50% operation stress	391,620

2.4. CE and FCC Compatibility

EGPL-G202 conforms to CE and FCC requirements.

2.5. RoHS Compliance

EGPL-G202 is fully compliant with RoHS directive.

2.6. Hardware

2.6.1. Layout

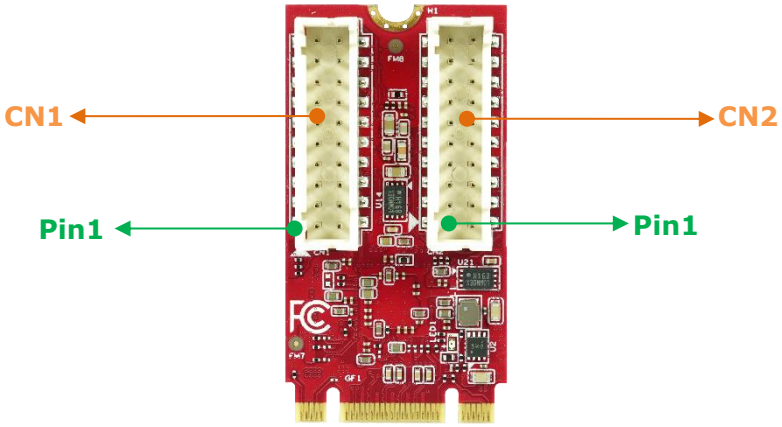


Table 7: M.2 2242 PCB Layout Legend

Label	Connector Type	Function
CN1 **CN2**	Wire to board SMD 2*10P 180° P:2.00mm H:4.0mm	GbE LAN Signal 10/100/1000 LED Signal

Table 8: Daughter Board PCB Layout Legend

Label	Connector Type	Function
CN1	10/100/1000 Base-T RJ45 DIP 10P8C 90° LED: Green-Orange/Green	GbE LAN Port 10/100/1000 LED Indicator
CN2	Wire to board SMD 2*10P 180° P:2.00mm H:4.0mm	GbE LAN Signal 10/100/1000 LED Signal
CN3	10/100/1000 Base-T RJ45 DIP 10P8C 90° LED: Green-Orange/Green	GbE LAN Port 10/100/1000 LED Indicator

CN4	Wire to board SMD 2*10P 180° P:2.00mm H:4.0mm	GbE LAN Signal 10/100/1000 LED Signal

2.6.2. Pin Define

Table 9: M.2 B+M Key Pin Define

Signal Name	Pin #	Pin #	Signal Name
		75	GND
3.3V	**74**	**73**	GND
3.3V	**72**	**71**	GND
3.3V	**70**	**69**	NC
NC	**68**	**67**	RESET#
Module Key M			
NC	**58**		
NC	**56**	**57**	GND
PE_WAKE_N	**54**	**55**	CLK+
GND	**52**	**53**	CLK-
PE_RST	**50**	**51**	GND
NC	**48**	**49**	RX+
NC	**46**	**47**	RX-
NC	**44**	**45**	GND
NC	**42**	**43**	TX+
NC	**40**	**41**	TX-
NC	**38**	**39**	GND
NC	**36**	**37**	NC
NC	**34**	**35**	NC
NC	**32**	**33**	GND
NC	**30**	**31**	NC
NC	**28**	**29**	NC
NC	**26**	**27**	GND
NC	**24**	**25**	NC
NC	**22**	**23**	NC

NC	**20**	**21**	GND
Module Key B			
NC	**10**	**11**	GND
NC	**8**	**9**	NC
NC	**6**	**7**	NC
3.3V	**4**	**5**	GND
3.3V	**2**	**3**	GND
		1	GND

2.6.3. I/O Connector Mechanical Drawing & Pin Defines

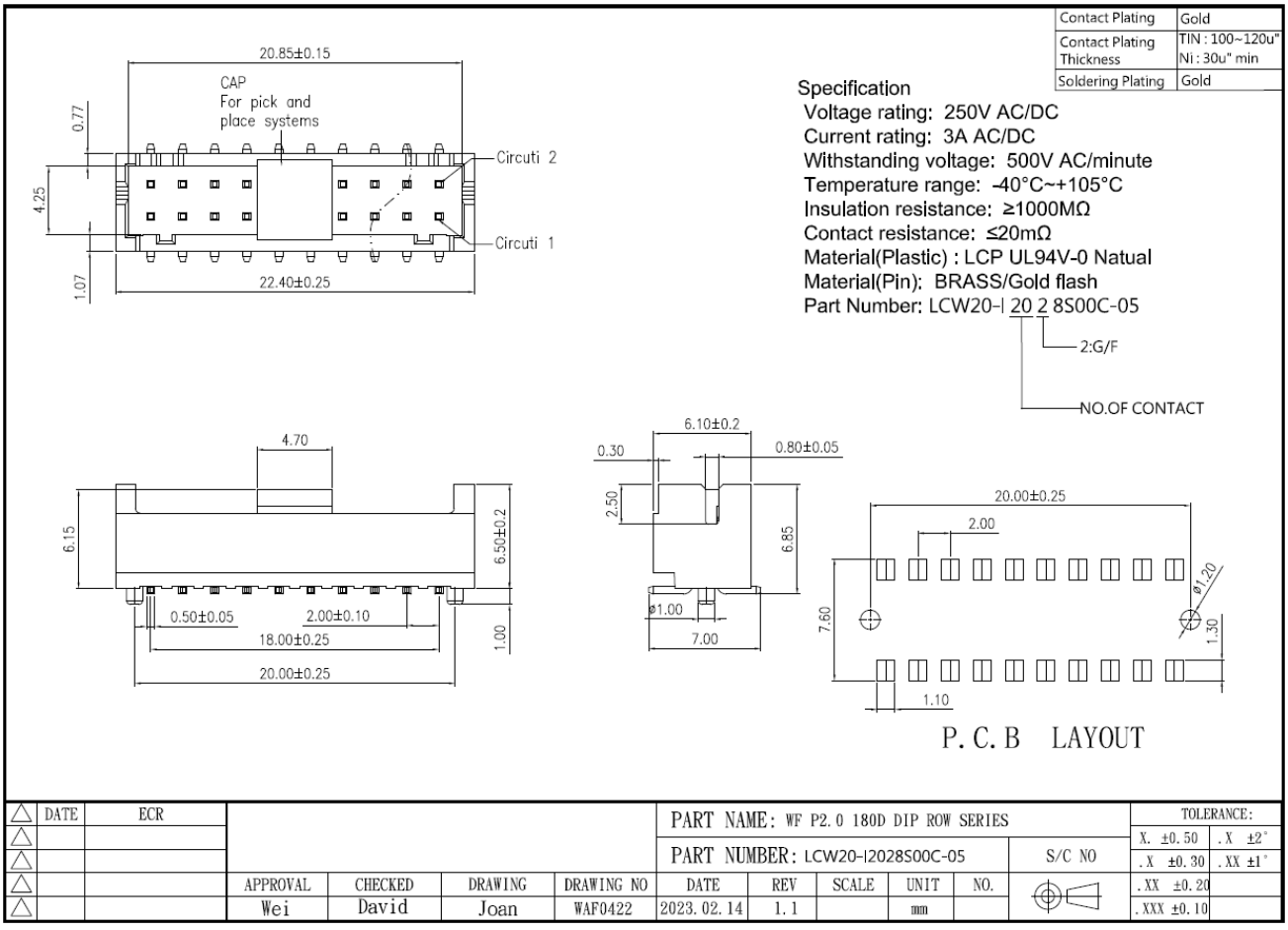


Figure 4: Wire to Board SMD 2*10P Connector Drawing

Table 10: Wire to Board SMD 2*10P Connector Pin Define

Signal Name	Pin #	Pin #	Signal Name
LINK_100_N	**2**	**1**	MDI0P_IC
LINK_ACT_N	**4**	**3**	MDI0N_IC
LINK_1000_N	**6**	**5**	MDI1P_IC
GND	**8**	**7**	MDI1N_IC
GND	**10**	**9**	MDI2P_IC
GND	**12**	**11**	MDI2N_IC
3.3V	**14**	**13**	MDI3P_IC
3.3V	**16**	**15**	MDI3N_IC
NC	**18**	**17**	NC
NC	**20**	**19**	NC

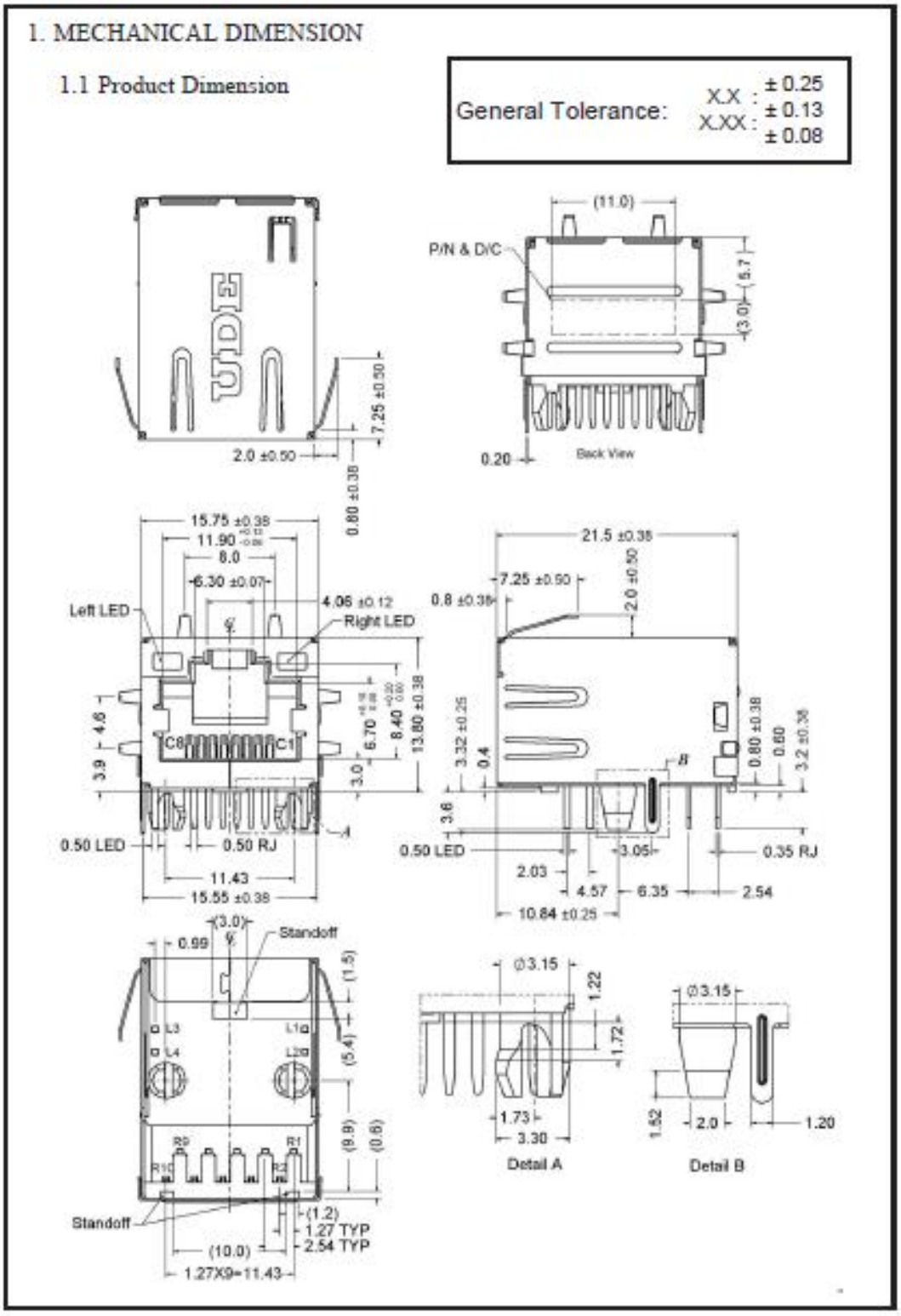
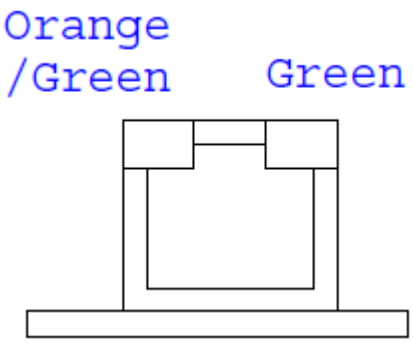


Figure 5: RJ45 Connector Drawing

Table 11: RJ45 LAN LED Table



Speed	Orange/Green (Status)	Green (Active/Link)
10M	OFF	Flash
100M	ON (Green)	Flash
1G	ON (Orange)	Flash

2.6.4. EGPL-G202 Mechanical Drawing

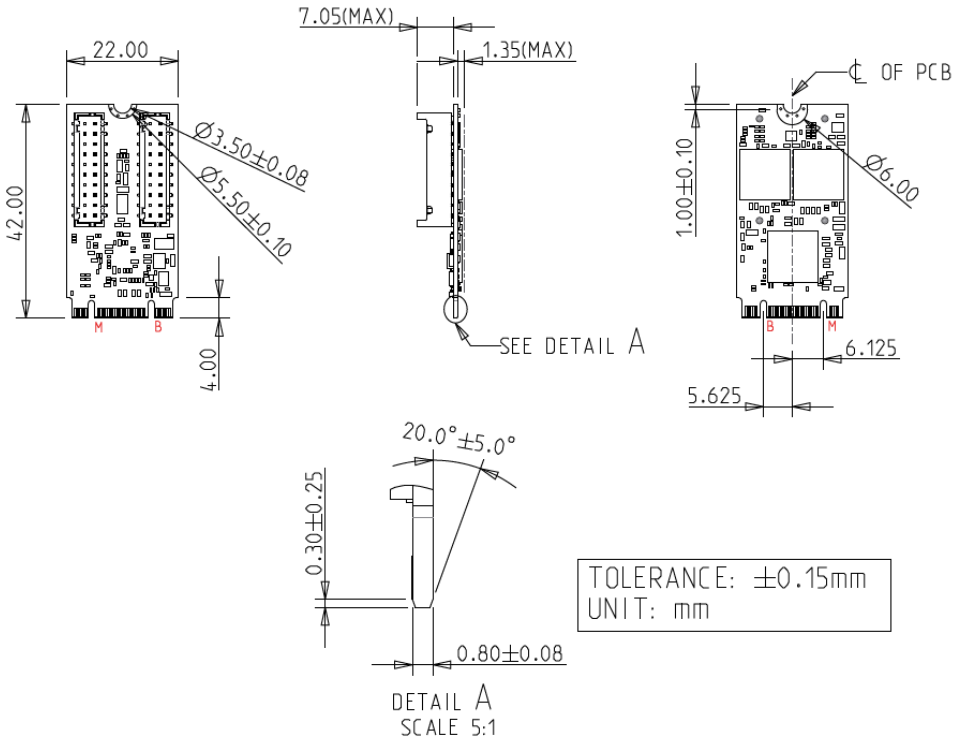
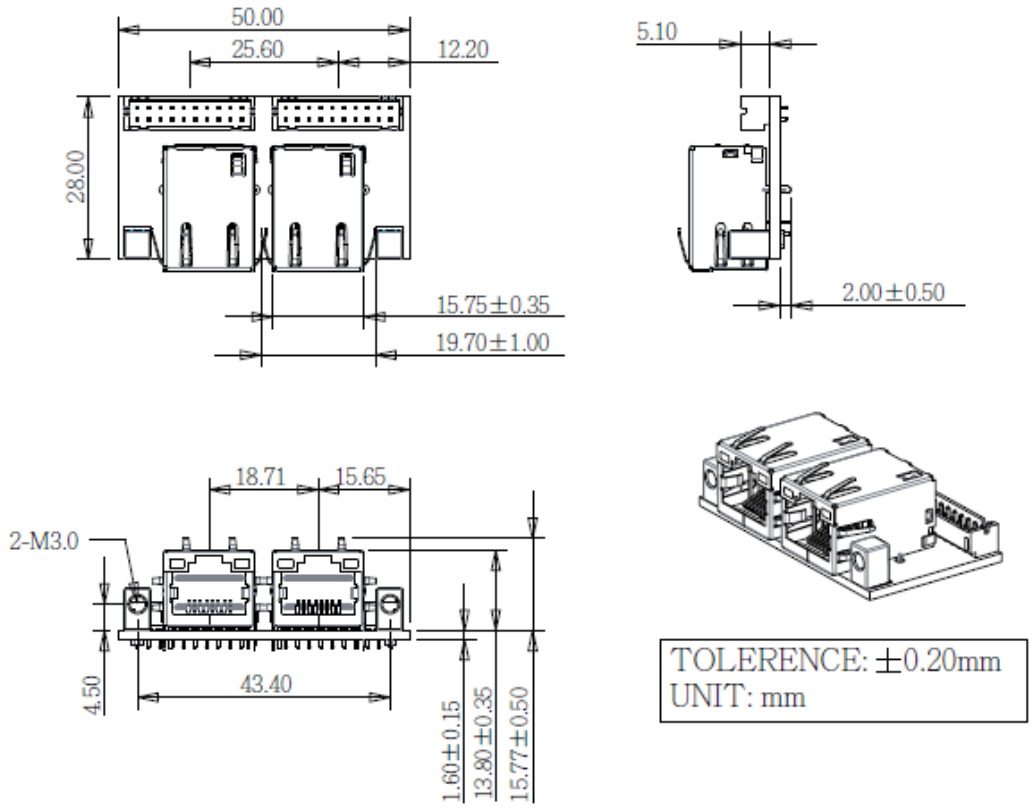


Figure 6: EGPL-G202 M.2 Board Drawing

Figure 7: Mounting Hole Daughter Board Drawing (EGPL-G202-C3/W3)



2.6.5. Cable Mechanical Drawing

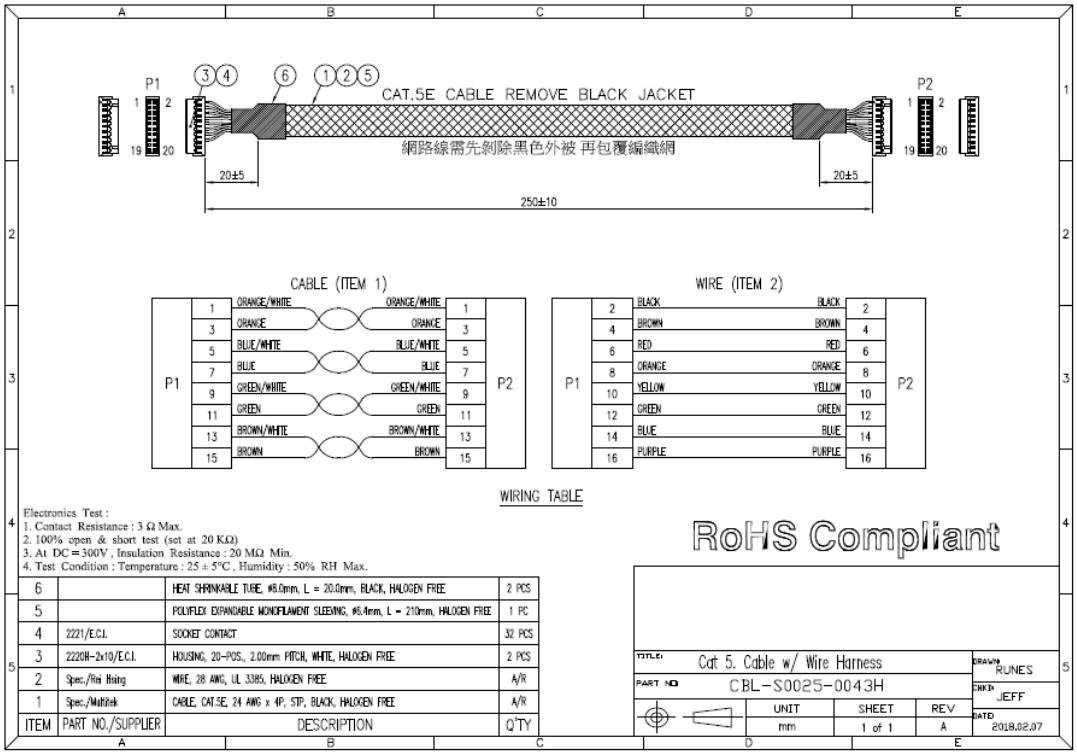


Figure 8: Board to Board LAN Cable Drawing

2.6.6. Packing List

- EGPL-G202 M.2 Board x 1
- EGPL-G202 Daughter Board x 1
- Board to Board LAN Cable x 2

2.7. Software Support

- Windows: XP(32bit), 7(32/64bit), 8/8.1(32/64 bit), 10(32/64bit), and later versions.
- Linux: Kernel 2.4 above.

3. Installation Guide

Please download driver from Myinnodisk web site.
https://myinnodisk.innodisk.com/myinnodisk/Login.aspx

Or you can download intel i210 chip driver from intel official web site directly.
https://downloadcenter.intel.com/product/64399/Intel-Ethernet-Controller-I210-Series

4. Appedix

innodisk

宜鼎國際股份有限公司
Innodisk Corporation
REACH Declaration

Tel:(02)7703-3000 Fax:(02) 7703-3555 Internet: https://www.innodisk.com/

Innodisk Corporation pursues its social responsibility for global environmental preservation by committing to be compliant with REACH regulation (REGULATION (EC) No 1907/2006). We hereby confirm that the product(s) delivered to

Innodisk P/N	Description
All Innodisk EP Products	

☐ contain(s) **no** hazardous substances or constituents exceeding the defined threshold 0.1 % by weight in homogenous material if not otherwise specified, as described in the candidate list table currently including 209 substances and shown on the ECHA website (http://echa.europa.eu/de/candidate-list-table).

☑ contain(s) one or more hazardous substances or constituents exceeding 0.1 % by weight in homogenous material if not otherwise specified in candidate list table. Where the threshold value is exceeded, the substances in question are to be declared in accompanying Appendix A.

☑ Comply with REACH Annex XVII.

Guarantor

Company name 公司名稱： Innodisk Corporation 宜鼎國際股份有限公司

Company Representative 公司代表人： *Randy Chien* 簡川勝

Company Representative Title 公司代表人職稱： Chairman 董事長

Date 日期： 2020 / 07 / 01

innodisk

宜鼎國際股份有限公司
Innodisk Corporation

Tel:(02)7703-3000 Internet: https://www.innodisk.com/

RoHS 自我宣告書(RoHS Declaration of Conformity)

Manufacturer Products: All Innodisk EM FLASH, DRAM and EP products

一、 宜鼎國際股份有限公司（以下稱本公司）特此保證售予貴公司之所有產品，皆符合歐盟 2011/65/EU 及(EU) 2015/863 關於 RoHS 之規範要求。
Innodisk Corporation declares that all products sold to the company, are complied with European Union RoHS Directive (2011/65/EU) and (EU) 2015/863 requirement.

二、 本公司同意因本保證書或與本保證書相關事宜有所爭議時，雙方宜友好協商，達成協議。
Innodisk Corporation agrees that both parties shall settle any dispute arising from or in connection with this Declaration of Conformity by friendly negotiations.

三、 本公司聲明我們的產品符合 RoHS 指令的附件中(7a)、(7c-I)允許豁免。
We declare, our products permitted by the following exemptions specified in the Annex of the RoHS directive.

※ (7a) Lead in high melting temperature type solders(i.e. lead-based alloys containing 85% by weight or more lead).

※ (7C-I) Electrical and electronic components containing lead in a glass or ceramic other than dielectric ceramic in capacitors, e.g. piezoelectric devices, or in a glass or ceramic matrix compound.

Name of hazardous substance	Limited of RoHS ppm（mg/kg）
鉛（Pb）	< 1000 ppm
汞（Hg）	< 1000 ppm
鎘（Cd）	< 100 ppm
六價鉻（Cr 6+）	< 1000 ppm
多溴聯苯（PBBs）	< 1000 ppm
多溴二苯醚（PBDEs）	< 1000 ppm
鄰苯二甲酸二(2-乙基己基)酯（DEHP）	< 1000 ppm
鄰苯二甲酸丁酯苯甲酯（BBP）	< 1000 ppm
鄰苯二甲酸二丁酯（DBP）	< 1000 ppm
鄰苯二甲酸二異丁酯（DIBP）	< 1000 ppm

立 保 證 書 人 (Guarantor)

Company name 公司名稱： Innodisk Corporation 宜鼎國際股份有限公司

Company Representative 公司代表人： Randy Chien 簡川勝

Company Representative Title 公司代表人職稱： Chairman 董事長

Date 日期： 2020 / 03 / 03

CERTIFICATE OF CONFORMITY

Product	:	M.2 LAN Module
Brand	:	Innodisk
Test Model	:	E%PL-G#02
Series Model	:	E%PL-G#02 (%: Form factor: (2: 2.5"SSD,3:DDR3 DIMM, D:Dongle, G:NGFF_M.2, H:mPCIe Half, L:PCIe Low profile, M:mPCIe, S:SATA, X:Multi, Z:Others) #: Output items: (1:1Port, 2:2Ports, 3:3Ports, 4:4Ports, A~Z:Others, X:Multi))
Applicant	:	Innodisk Corporation
Test Report No.	:	CE171206D26

We, **Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch**, declare that the equipment above has been tested in our facility and found compliance with the requirement limits of applicable standards, in accordance with the Directive 2014/30/EU. The test record, data evaluation and Equipment Under Test (EUT) configurations represented herein are true and accurate under the standards herein specified.

EN 55032:2015 +AC:2016, Class B

EN 61000-3-2:2014 (Not applicable)

EN 61000-3-3:2013 (Not applicable)

EN 55024:2010

EN 61000-4-2:2009 / IEC 61000-4-2:2008 ED. 2.0

EN 61000-4-3:2006 +A1:2008 +A2:2010 / IEC 61000-4-3:2010 ED. 3.2

EN 61000-4-4:2012 / IEC 61000-4-4:2012 ED. 3.0

EN 61000-4-5:2014 / IEC 61000-4-5:2014 ED. 3.0 (Not applicable)

EN 61000-4-6:2014 / IEC 61000-4-6:2013 ED. 4.0

EN 61000-4-8:2010 / IEC 61000-4-8:2009 ED. 2.0

EN 61000-4-11:2004 / IEC 61000-4-11:2004 ED. 2.0 (Not applicable)

NOTE: The above EN/IEC basic standards are applied with latest version if customer has no special requirement.

Henry Lai / Director

Dec. 18, 2017

No. 47-2, 14th Ling, Chia Pau Vil., Lin Kou Dist., New Taipei City, Taiwan (R.O.C.)

Tel: 886-2-26052180 Fax: 886-2-26051924

http://www.bureauveritas-adt.com E-Mail: service.adt@tw.bureauveritas.com

CERTIFICATE OF CONFORMITY

Product	:	M.2 LAN Module
Brand	:	Innodisk
Test Model	:	E%PL-G#02
Series Model	:	E%PL-G#02 (%: Form factor: (2: 2.5"SSD,3:DDR3 DIMM, D:Dongle, G:NGFF_M.2, H:mPCIe Half, L:PCIe Low profile, M:mPCIe, S:SATA, X:Multi, Z:Others) #: Output items: (1:1Port, 2:2Ports, 3:3Ports, 4:4Ports, A~Z:Others, X:Multi))
Applicant	:	Innodisk Corporation
Report No.	:	FD171206D26

We, **Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch**, declare that the equipment above has been tested in our facility and found compliance with the requirement limits of applicable standards. The test record, data evaluation and Equipment Under Test (EUT) configurations represented herein are true and accurate under the standards herein specified.

47 CFR FCC Part 15, Subpart B, Class B

ICES-003:2016 Issue 6, Class B

ANSI C63.4:2014

Henry Lai Director

Dec. 18, 2017

No. 47-2, 14th Ling, Chia Pau Vil., Lin Kou Dist., New Taipei City, Taiwan (R.O.C.)

Tel: 886-2-26052180 Fax: 886-2-26051924

http://www.bureauveritas-adt.com E-Mail: service.adt@tw.bureauveritas.com

Contact us

Headquarters (Taiwan)

5F., No. 237, Sec. 1, Datong Rd., Xizhi Dist., New Taipei City 221, Taiwan
Tel: +886-2-77033000
Email: sales@innodisk.com

Branch Offices:

USA

usasales@innodisk.com

+1-510-770-9421

Europe

eusales@innodisk.com

+31-40-3045-400

Japan

jp_sales@innodisk.com

+81-3-6667-0161

China

sales_cn@innodisk.com

+86-755-2167-3689

www.innodisk.com

July 11, 2025