Hardware Reference Manual

COMIZOA

EtherCAT Master BOARD

COMI-LX559-SE/PE
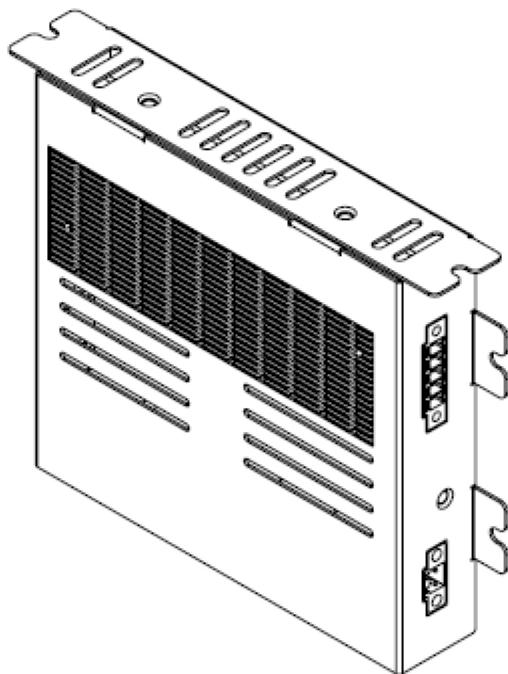
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개요

COMI-LX559
(EtherCAT Master)

COMI-LX559는 커미조아의 Embedded 형태의 EtherCAT Master Controller로 ,

상위와 Ethernet을 통하여 인터페이스를 합니다.

내부에 EtherCAT 허브를 내장하여 총 3개의 포트를 통해 EtherCAT System을 구성 가능하며

추가적으로 RS232C 기반의 시리얼 통신을 1 포트 지원합니다.

본 매뉴얼은 COMI-LX559의 하드웨어 구성과 기능에 대해 설명하는 하드웨어 매뉴얼 입니다.

제품사양

Contents	Details
Dimension	140x112x25 (mm)
Operating Temperature	0°C ~ 50°C
Storage Temperature	-20°C ~ 80°C
Humidity	5% ~ 90%, non-condensing
Power Input	BOARD MAIN : ECH381VM-02P, DC 24V
Power consumption	Typical : 400 mA @ DC 24V ± 5% Maximum : 600 mA @ DC 24V ± 5%

Environmental Specification

Contents	Details
Processor	TI DSP (1Ghz, Dual Core, Max 20GPFLOPs)
Memory	System Memory : DDR3 512MB(4Gb)
	Flash Memory : 128Mb NOR Flash
Ethernet	1 Port (RJ-45 Connector)
	100 Mbps, Full-Duplex 지원

Processor & Memory specification
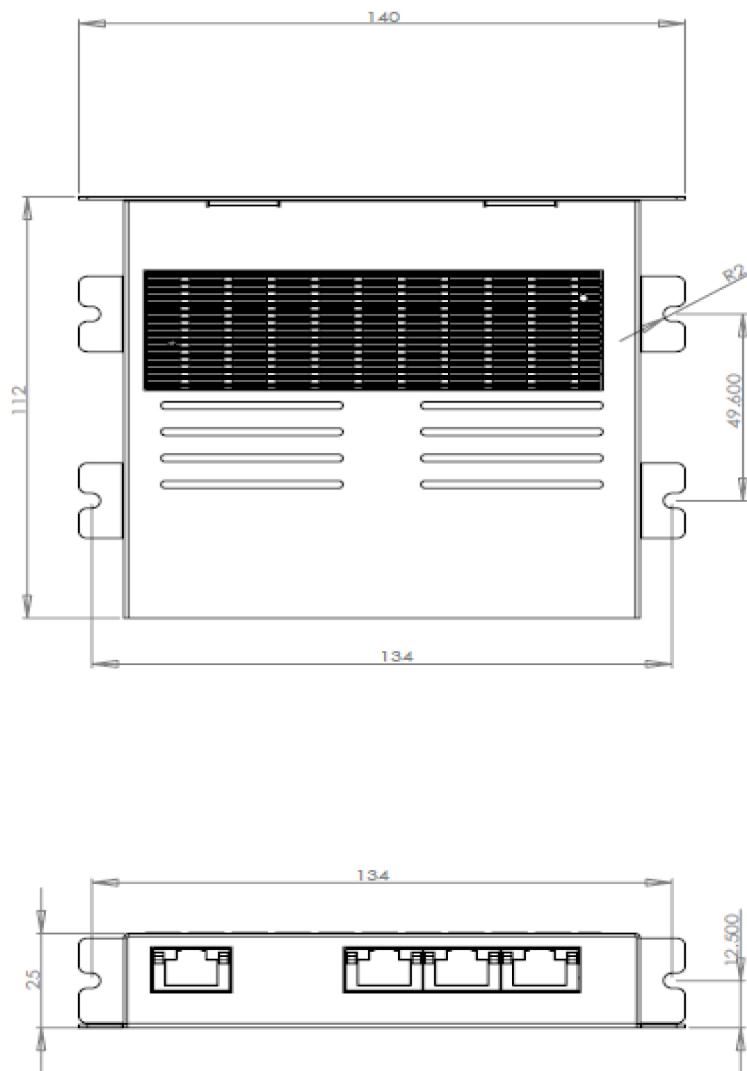
Contents	Details
Data Frame	1500 Byte
Contol	Motion : Max 32 Axes
	IO : UP to 1024 nodes
Port	3 Port (RJ-45 Connector)
	10/100 Mbps Auto-Negotiation
Communication Cycle	0.1 ms ~ 50 ms

EtherCAT Specification
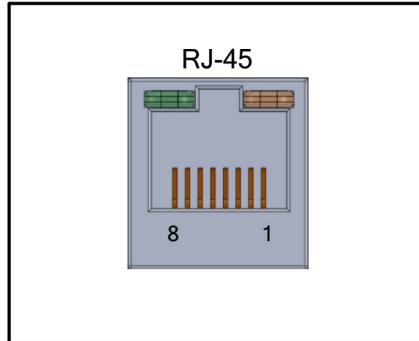
Contents	Details
Number of Channel	1 Channels
Protocol	RS-232
Isolation	Digital Isolators (V_{iso} = 2500 V_{rms})
Baud-rate	2400 bps ~ 38400 bps (optional 115200)
Wiring Contact	ECH381VM-05P, DC 24V

Serial Comm Specification

제품사양

(unit : mm)
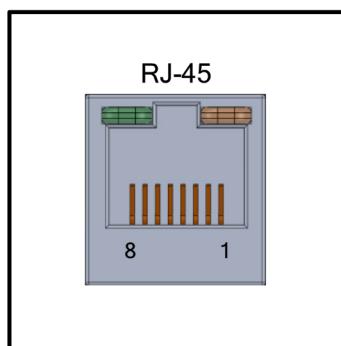
Dimension

Connector

◉ EtherCAT Connector

RJ-45

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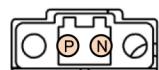
	MASTER		SLAVE 1, 2, 3	
1	TX+	1	TX+
2	TX-	2	TX-
3	RX+	3	RX+
4	NC	4	NC
5	NC	5	NC
6	RX-	6	RX-
7	NC	7	NC
8	NC	8	NC

* EtherCAT용 통신 Cable CAT.5E 이상 사용

◉ Ethernet Connector

RJ-45

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Pin #	Description	Wiring Color
1	RX+	W / Orange
2	RX-	Orange
3	TX+	W / Green
4	-	Blue
5	-	W / Blue
6	TX-	Green
7	-	W / Brown
8	-	Brown
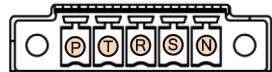
■ Power Connector
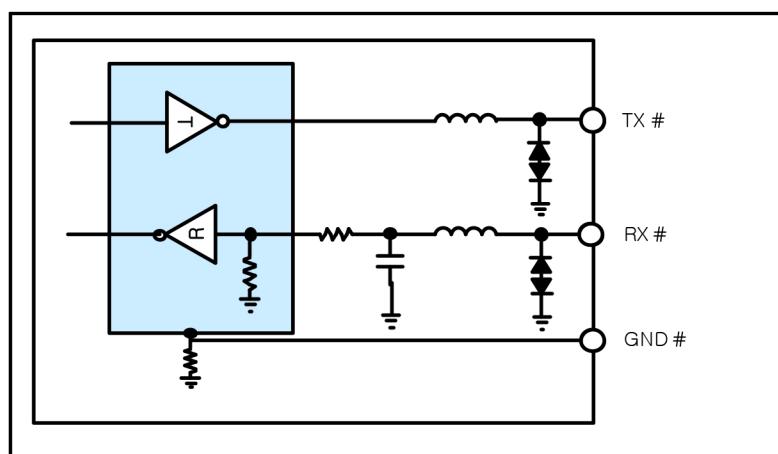
P	PWR DC P24V
N	PWR DC N24V

※ 전원의 양극을 반대로 입력한 경우 제품에 심각한 손상을 초래할 수 있습니다.

■ Serial Comm Connector & Switch

P	P5V
T	TX (RS232)
R	RX(RS232)
S	N.C.
N	COM_GND

Serial Comm. (RS232) Circuit

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Hardware Reference Manual Update List

No.	Version	Date	Changes in
1	1.00	2020.04.01	First Edition
2	1.00	2020.12.15	-

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