

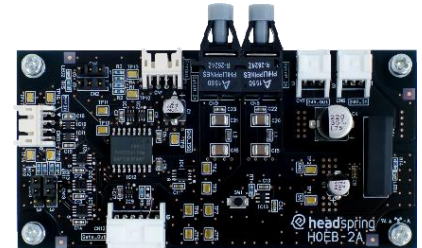
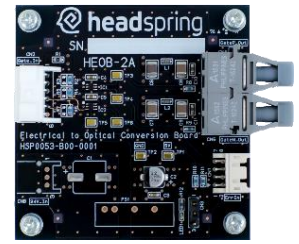
## Electrical to Optical Conversion Board

# HEOB-2A

## Optical to Electrical Conversion Board

# HOEB-2A

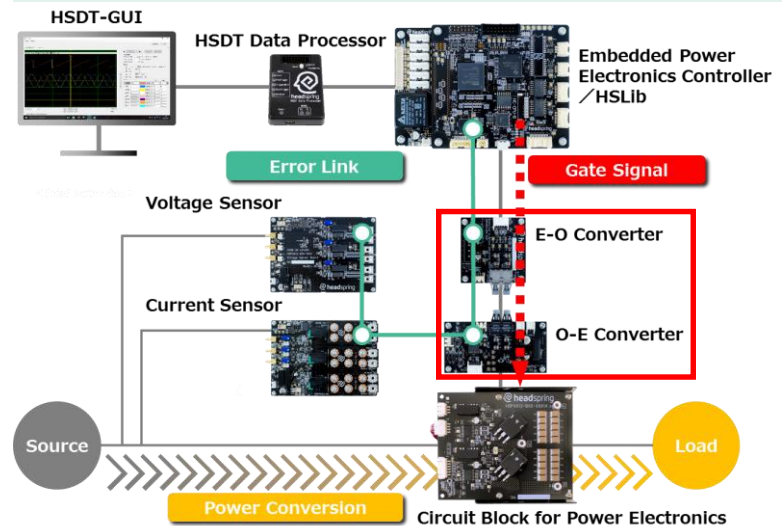
E-O and O-E Conversion of Gate Signal from Controller  
 Providing Isolation between Controller and Power (High-voltage)  
 Circuit for Safe Environment



### Abstract

- E-O Conversion of the Gate Signal from Controller and O-E Conversion to Power Electronics Device
- Gate Shutdown Function using “Error Link” Function Supported
- Compatible I/F with Headspring Controller (HECS-B/A) on E-O Conversion Board
- Compatible I/F with Headspring Circuit Board (HGCB-2A-401350) on O-E Conversion Board

### Connection Image



### Features

## Free Layout of Experimental Equipment

- Long haul Signal Transmission by Optical Cable
- Seamless Operation by Common I/F with Controller and Circuit Block

## “Error Link” Function

- Error State Sharing with Other Headspring Platform Products with Attached Cable
- Automatic and Hardware-level Gate Block

## Easy Connect with Circuit Block and Controller by Attached Cable

- Isolated Connection between Headspring Controller (HECS-B/A) and Circuit Block (HGCB-2A-401350)

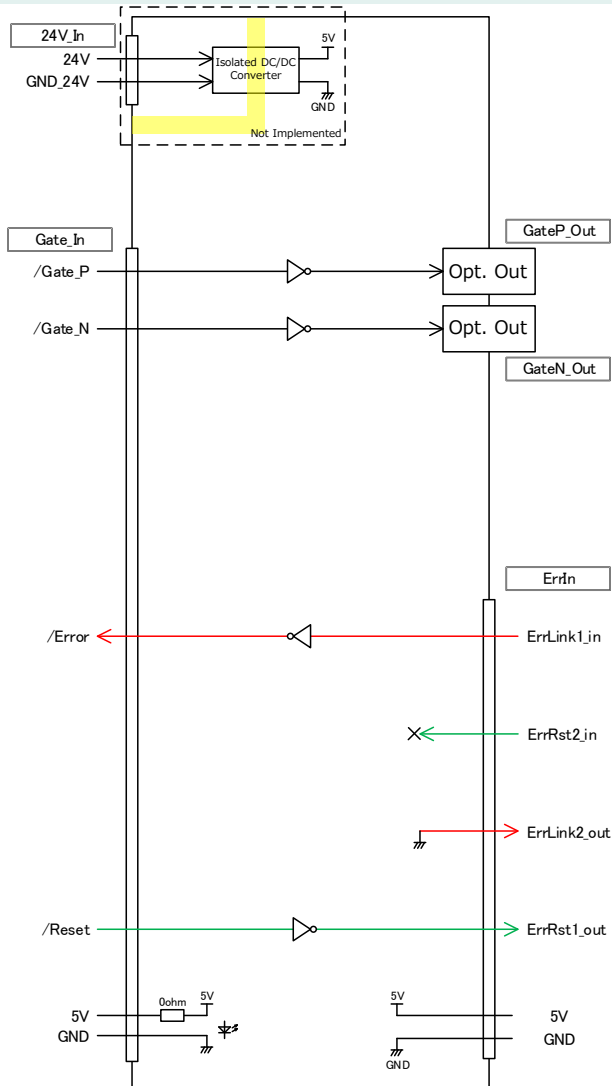
## Specification of E-O Conversion Board

Subject	Specification	Note
Size	60mm×60mm	
Optical Output	2ch	
Optical Output Delay	30nsec	
Minimum Optical Pulse Width	10nsec	
Error Link Function ErrIn Connector	1ch	VILmax = 1.35V VIHmin = 3.15V IImax = 10mA/ch  VOLmax = 0.55V VOHmin = 3.8V IOmax = 10mA/ch
Power Supply 5V	<170mA	±5%

## Specification of O-E Conversion Board

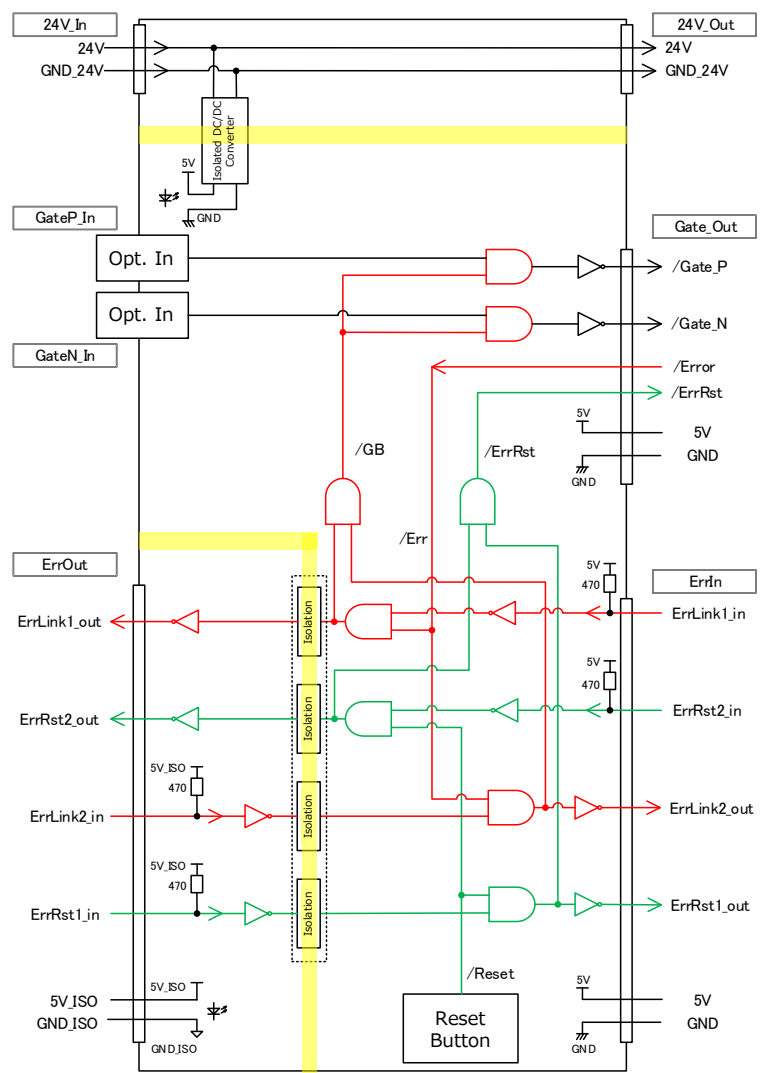
Subject	Specification	Note
Size	100mm×50mm	
Optical Input	2ch	
Optical Input Delay	30nsec	
Minimum Optical Pulse width	10nsec	
Error Link Function ErrIn Connector	1ch	VILmax = 1.35V VIHmin = 3.15V IImax = 10mA/ch
Error Link Function ErrOut Connector	1ch	VOLmax = 0.55V VOHmin = 3.8V IOmax = 10mA/ch
Power Supply 5V	<40mA	±5%
Power Supply 24V	<30mA	±10%

## Block Diagram of E-O Converter Board



: Isolation

## Block Diagram of O-E Conversion Board



: Isolation

\* Specifications and Design are subject to change