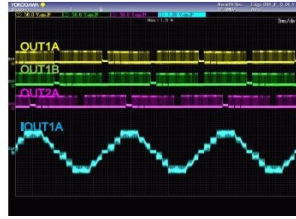


Specifications of Bipolar Driver Circuit Board BD202411-H3

- For Ring Pump RP-HIII02 series -

1. Power supply voltage DC 24V
2. Drive system Limited to Quarter (1/4) steps.



Quarter Step Drive Waveform (CLK: 2400Hz)

3. Output current 0.8A

Applicable Stepper Motor : NKM-14M10A3 (Three Peaces Co., Ltd.)

4. CW/CCW switching High = CW Low = CCW
Select High when the voltage is higher than 2.0V and lower than 5.0V.
Select Low when the voltage is lower than 0.8V.
5. Start/Stop switching High = Start Low = Stop
Select High when the voltage is higher than 2.0V and lower than 5.0V.
Select Low when the voltage is lower than 0.8V.

6. Driver IC BD63725BEFV (ROHM)

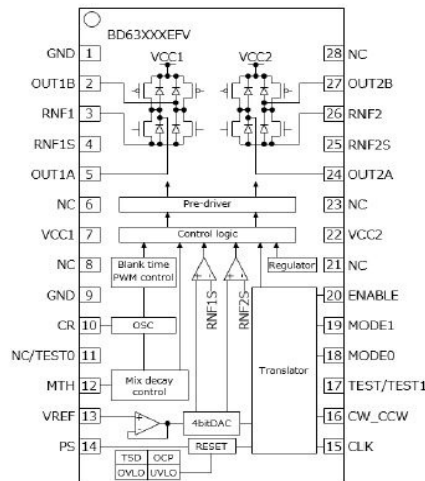


Figure 2 Driver Block Diagram

Terminal Number	Name	Function	Terminal Number	Name	Function
1	GND	Ground Terminal	15	CLK	Phase-Forward Clock Input Terminal
2	OUT1B	H-bridge output terminal	16	CW_CCW	Motor rotation direction setting terminal
3	RNF1	Resistor connection terminal for current sensing	17*1	TEST	Test terminal (used by connecting to GND)
4	RNF1S	Current-sense comparator input terminal	17*1	TEST1	Test terminal
5	OUT1A	H-bridge output terminal	18	MODE0	Motor excitation mode setting terminal
6	NC	Non-connection	19	MODE1	Motor excitation mode setting terminal
7	VCC1	Power Terminal	20	ENABLE	Output Enable Terminal
8	NC	Non-connection	21	NC	Non-connection
9	GND	Ground Terminal	22	VCC2	Power Terminal
10	CR	Chopping frequency setting terminal	23	NC	Non-connection
11*1	NC	Non-connection	24	OUT2A	H-bridge output terminal
11*1	TEST0	Test terminal	25	RNF2S	Current-sense comparator input terminal
12	MTH	Current attenuation method setting terminal	26	RNF2	Resistor connection terminal for current sensing
13	VREF	Output current value setting terminal	27	OUT2B	H-bridge output terminal
14	PS	Power Save Terminal	28	NC	Non-connection

* 1 : Upper row BD63715AEFV, BD63725BEFV, BD63525AEFV

7. Clock terminal

Duty : 50%

Select High when the voltage is higher than 2.8V and lower than 5.0V.

Select Low when the voltage is lower than 0.6V.

RP-HIII02*-45Z-DC24VS

RP-HIII02 series Continuous Driving Max : 333Hz 833PPS 250rpm

Frequency (Hz)	40	666	1333	2666	3333	4000
PPS	10	167	333	667	833	1000
Rotation (rpm)	3	50	100	200	250	300

Intermittent Drive

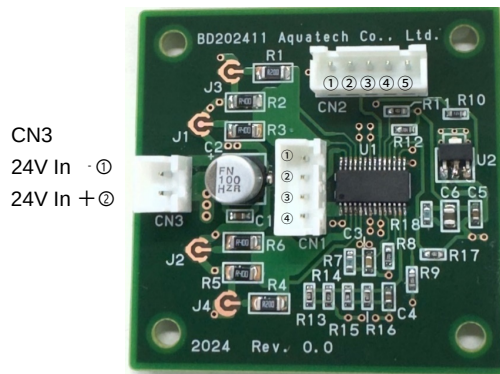
ON time Max 30min.

ON:OFF time=1:1

8. Optical terminal

DC5.0V 15mA Output terminal (CN2 ⑤Pin)

9. Explanation of Bi-polar Driver Board **BD202411-H3** 50 x 50□



Board-side male connector

B*B-XH-A Series/JST

Connection-side female connector

XHP* Series/JST

Contact Pin

BXH-001T-P0.6

CN3

24V In -①

24V In +②

CN1 Stepper motor connection

- | | | |
|---|----|-------|
| ① | B+ | Red |
| ② | B- | Blue |
| ③ | A+ | Black |
| ④ | A- | Green |

[An example of control board connection circuit]

CN2 Control circuit connection

- | | |
|---|------------|
| ① | GND |
| ② | CLK |
| ③ | START/STOP |
| ④ | CW/CCW |
| ⑤ | DC5V-out |

CN3 Power Input

- | | |
|---|-----------|
| ① | DC24V In- |
| ② | DC24V In+ |

