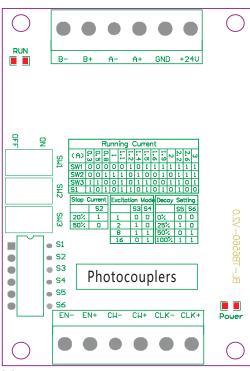
## Tb6560 stepping motor driver V20



## Warning:

- 1. Check the connection twice! The Tb6560 chipset can be damaged if the motor or the power supply are not connected properly.
- 2. Dont apply a motor that its rated current is more than 3A to this driver.
- 3. Do not set the current more than the motor rated current!

| Wiring Terminal symbol | Description                     |
|------------------------|---------------------------------|
| +24V, GND              | Power positive and negative     |
| A+, A-                 | Motor phase A                   |
| B+, B-                 | Motor phase B                   |
| CLK+, CLK-             | Pulse positive and negative     |
| CW+, CW-               | Direction positive and negative |
| EN+, EN-               | Enable positive and negative    |

## Note:

- 1. 6 input terminals, can be connected as common anode or cathode.
- 2. The normal input voltage is 5V, if it is more than 5V, than a series resistor is needed. this resistance is 1K case 12V and 2.4K case 24V.
- 3. when pulse is applied to CLK, the stepping motor will rotate, and stop when there is none, and the motor driver will change its current to the half current mode as setting to hold the motor still.
- 4. Motor rotate clockwise when CW is low level and counterclockwise when  $CW\,\text{is}$  high level.
- 5. Motor is enable when EN is low level and disable when EN is high leve.

| Running Current |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| (A)             | 0.3 | 0.5 | 0.8 | 1   | 1.1 | 1.2 | 1.4 | 1.5 | 1.6 | 1.9 | 2   | 2.2 | 2.6 | 3   |
| SW1             | OFF | OFF | OFF | OFF | OFF | ON  | OFF | ON  |
| SW2             | OFF | OFF | ON  | ON  | ON  | OFF | ON  | OFF | OFF | ON  | OFF | ON  | ON  | ON  |
| SW3             | ON  | ON  | OFF | OFF | ON  | OFF | ON  | ON  | OFF | OFF | ON  | ON  | OFF | ON  |
| S1              | ON  | OFF | ON  | OFF | ON  | ON  | OFF | ON  | OFF | ON  | OFF | ON  | OFF | OFF |

| Stop Current |     |  |  |  |  |
|--------------|-----|--|--|--|--|
|              | S2  |  |  |  |  |
| 20%          | ON  |  |  |  |  |
| 50%          | OFF |  |  |  |  |

| Excitation Mode |     |     | Decay Setting |     |     |  |  |
|-----------------|-----|-----|---------------|-----|-----|--|--|
| Step            | S3  | S4  |               | S5  | S6  |  |  |
| whole           | OFF | OFF | 0%            | OFF | OFF |  |  |
| half            | ON  | OFF | 25%           | ON  | OFF |  |  |
| 1/8             | ON  | ON  | 50%           | OFF | ON  |  |  |
| 1/16            | OFF | ON  | 100%          | ON  | ON  |  |  |