Sun-Pec
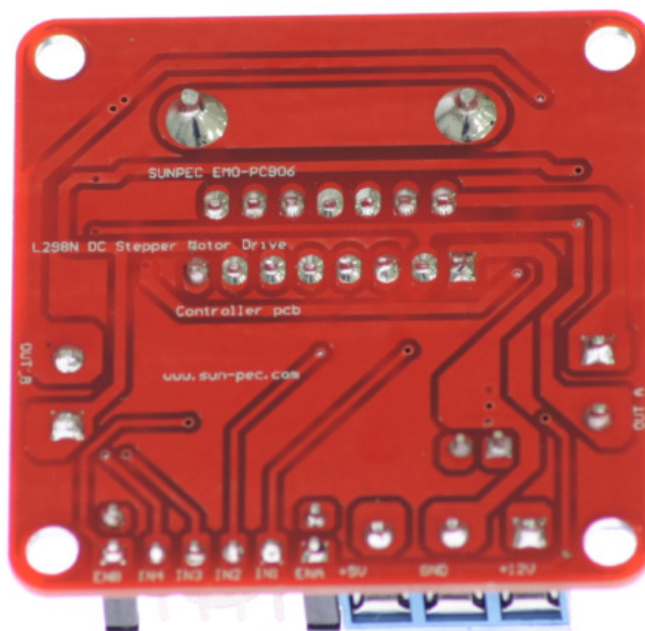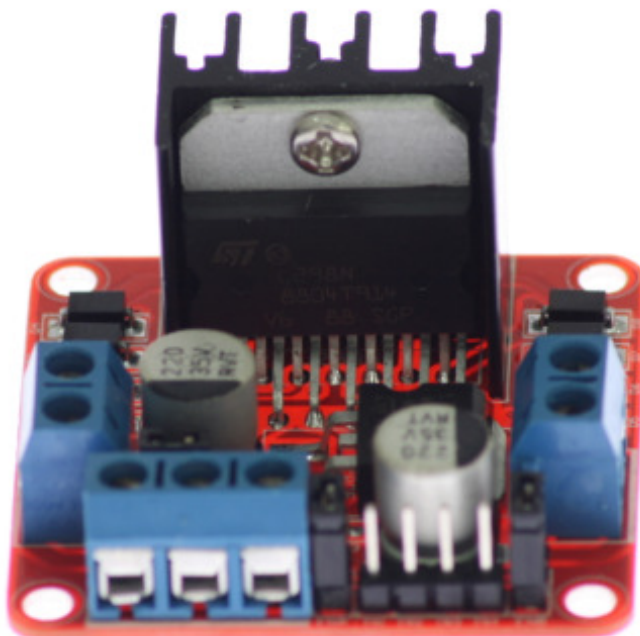
Dual H Bridge DC Stepper Motor Drive Controller Board Module L298N

User's Guide

Overview
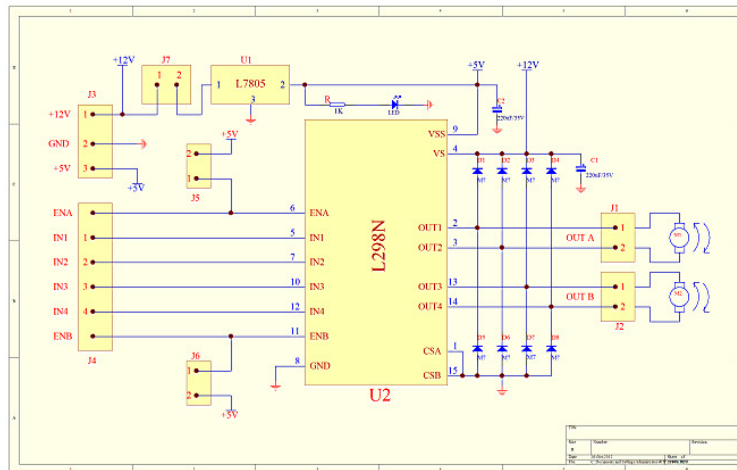
Electrical Drawing

Schematic

Diagram
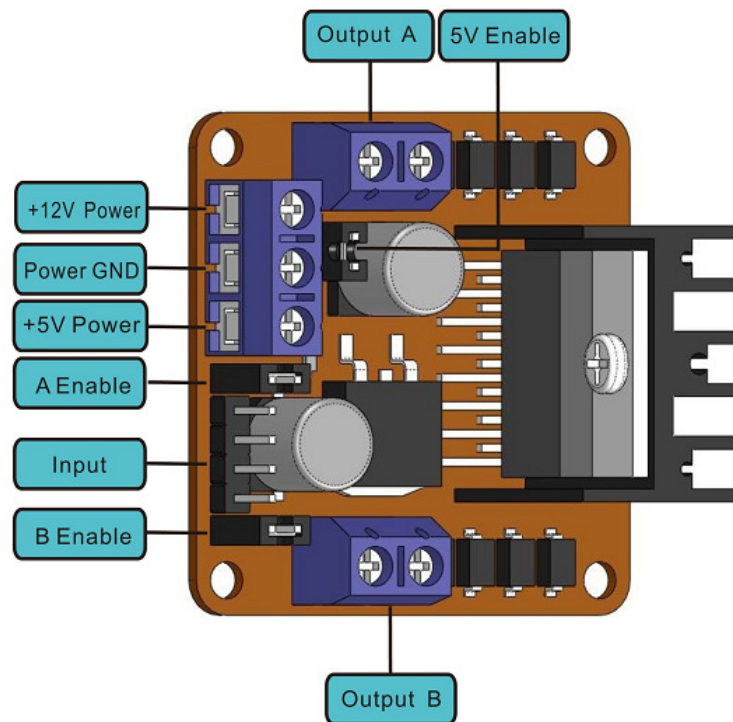
Description

Double H Bridge Motor Driver Module	**Working mode**	Drived by H bridge (double lines)	
Control chip	L298N （ST）		
Logical voltage	5V	**Driving voltage**	5V—35V
Logical current	0mA-36mA	**Driving current**	2A (MAX single bridge)
Storage temperature	（-20℃）—（+135℃）	**Maximum power**	25W
weight	30g	**Periphery dimension**	43*43*27mm

Product features:

1. Using L298N made by ST company as the control chip,the module has such characteristics as strong driving ability,low calorific value and strong anti-interference ability.

2. This module can use built-in 78M05 for electric work via a driving power supply part. But to avoid the damage of the voltage stabilizing chip, please use an external 5V logic supply when using more than 12V driving voltage.

3. Using large capacity filter capacitor, this module can follow current to protect diodes, and improve there liability

This module is integrated with a built-in 5V power. When the drive voltage is 7V-35V,it can enable the onboard 5V logic power supply; after the power supply, don't input voltage in the interface+5V power supply, but you can lead the 5V for external use.
When ENA enable IN1 IN2 control OUT1 OUT2
When ENB enable IN3 IN4 control OUT3 OUT4

Description

Applied cases:

1 Driving stepper motor

The connection of driving a common 4 line 2 phase electric motor is shown in below figure

after enable ENA ENB

Input the following driving timing from IN1-IN4，then the speed and direction of the stepper

motor can be controlled

stepper motor	signal input	step 1	step 2	step 3	step 4	teturn to step1
corotation	IN1	0	1	1	1	return
	IN2	1	0	1	1	return
	IN3	1	1	0	1	return
	IN4	1	1	1	0	return
reversal	IN1	1	1	1	0	return
	IN2	1	1	0	1	return
	IN3	1	0	1	1	return
	IN4	0	1	1	1	return

2 Driving DC motor

Because the module is drived by double H bridge, it can drive two motors simultaneously.

The connecting method is shown in below figure

after enable ENA ENB

You can imput the speed and direction of PWM signal drive motor 1 from IN1 IN2

You can imput the speed and direction of PWM signal drive motor 2 from IN1 IN2
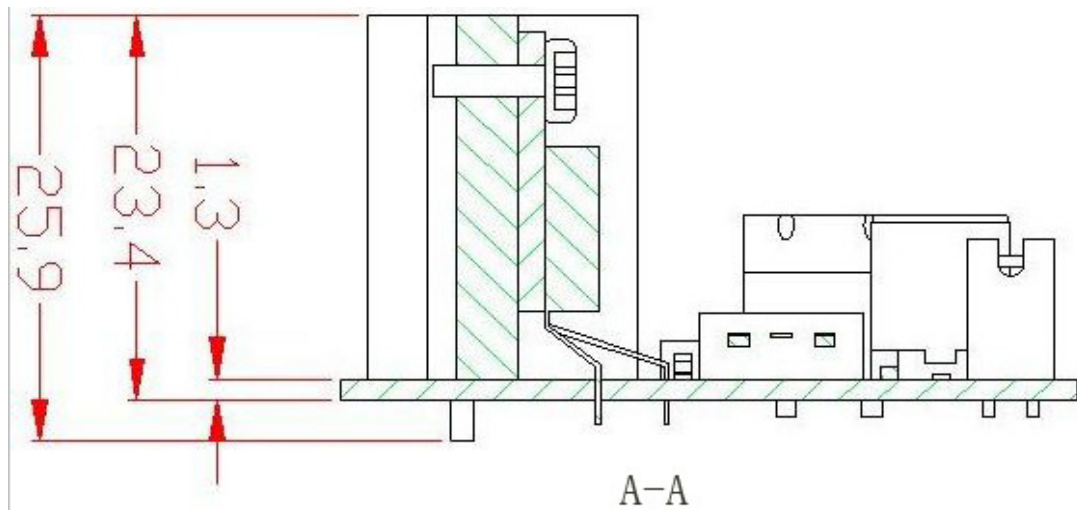
The signal is shown in the figure

DC motor	rotate	IN1	IN2	IN3	IN4	speed adjust PWM signal	
						end	end
M1	corotation	high	low	/	/	high	/
	reversal	low	high	/	/	high	/
	stop	low	low	/	/	high	/
M2	corotation	/	/	high	low	/	high
	reversal	/	/	low	high	/	high
	stop	/	/	low	low	/	high

Mechanical Drawing

Top Size
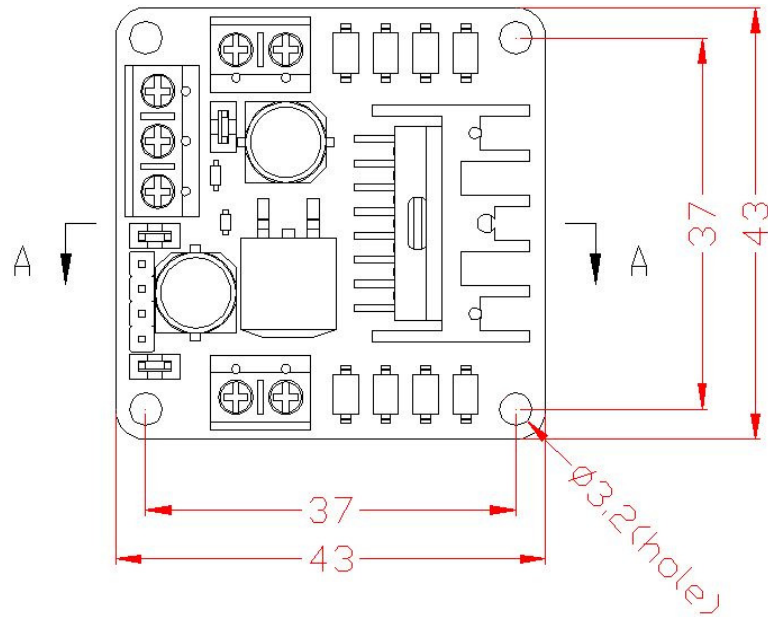
Side size

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Contact us

SUN-Pec Co., Ltd .

Unit E, 17/F, Success Ind. Building, 17 Sheung Hei Street, San

Po Kong, HK

Tel: +852-23549977

Fax: +852-23549355

Website: www.sun-pec.com

Email: contact@sun-pec.com