

2CH PROGRAMMABLE PWM SIGNAL GENERATOR: P/N: HW-515/170695

Two PWM pulse frequency duty cycle adjustable module square wave rectangular wave signal generator driven by stepping motor

Module highlights:

1. Two independent PWM outputs, and frequency / duty cycle can be set respectively
2. Wide frequency range and high precision
3. Serial communication, boundary dimension: 41 x 28mm, thickness: 1.6mm

Module description

Two independent PWM outputs can set the frequency / duty cycle respectively; the frequency is divided into three ranges:

1. XXX (no decimal point): the minimum unit is 1Hz, and the value range is 1Hz-999Hz;
2. XX. X (decimal point is ten): the minimum unit is 0.1KHz, and the value range is 0.1KHz-99.9KHz;
3. X.X.X (three decimal places): the minimum unit is 1KHz, and the value range is 1KHz-150KHz

e. g. frequency display: 100 represents the pulse with PWM output of 100Hz;

54.1 means the PWM output 54.1KHz pulse;

- 1.2.4. Pulse indicating PWM output 124KHz

Duty cycle value range: 0-100;

The three frequency ranges share a duty cycle, so set parameters and save in case of power failure

Parameters

There are three buttons in the module: Set, Up and Down;

1. Press the [set] key briefly to switch and display four parameter values (FR1: PWM1 frequency; dU1: PWM1 duty cycle; FR2: PWM2 frequency; dU2: PWM2 duty cycle). Before switching, there will be a flashing prompt for the corresponding parameter name
2. Press [Up] and [Down] directly to modify the current parameter value. Long press can increase or decrease quickly
3. There are three preset frequency values for each of the two PWM channels. In the frequency display interface, long press the [Set] key to switch down, and the duty cycle of the three frequencies is the same. (XXX: range 1Hz ~ 999Hz; XX. X: range 0.1KHz ~ 99.9KHz; X.X.X: range 1KHz ~ 150KHz)

Module parameters:

1. Working voltage: 5-24v supports micro USB 5.0V power supply;
2. Frequency range: 1Hz ~ 150KHz;
3. Frequency accuracy: the accuracy in each range is about 2%;
4. Signal load capacity: output current can be about 8-30mA
5. Output amplitude: default 5V V-pp, which can be changed by external power supply;
6. Ambient temperature: -30 ~ +70°C.

Scope of application:

1. Used as square wave signal generator to generate square wave signal for experimental development;
2. It is used to generate square wave signal for driving step motor driver;
3. Generate adjustable pulse for MCU;
4. Generate adjustable pulse, control related circuit, (PWM dimming speed regulation and other applications)

Serial port control

Communication standard: 9600bps

Data bit: 8

Stop bit: 1

Check bit: None

Flow control: None

1. Set PWM frequency

"S1FXXXT": set PWM1 frequency to XXX Hz (001 ~ 999)

"S1FXX.XT": set PWM1 frequency to XX.X KHz (00.1 ~ 99.9)
 "S1F: X.X.X.T": set PWM1 frequency to XXX kHz (0.0.1. ~ 1.5.0)
 "S1": PWM1
 "S2": PWM2
 "F": frequency
 "D": duty cycle
 "T": is the end flag bit

2. Set duty cycle of PWM

"S1DXXXT": set the duty cycle of PWM1 to XXX; (001-100)
 "S2DXXXT": set the duty cycle of PWM2 to XXX; (001-100)

Setting successful return: DOWN

Setting failed return: FALL

