

Two independent PWM generators can set the frequency, duty cycle

The wide frequency range, high accuracy;
Can serial communication.

First, the module description:

Frequency is divided into three ranges:

XXX (no decimal point): the smallest unit is 1Hz, the range 1Hz ~ 999Hz;

XX.X (decimal point in ten): The minimum unit is 0.1KHz; the range of 0.1KHz ~ 99.9KHz

X.X.X. (there are three decimal point): the smallest unit is 1KHz; the range 1KHz ~ 150KHz

Frequency display example:

"100" indicates that the PWM output pulse of 100Hz;

"54.1" indicates that the PWM output pulse of 54.1KHz;

"1.2.4." Indicates that the PWM pulse output 124KHz

Duty Cycle in the range: 0 to 100;

Three frequencies duty cycle is the same, all the parameters non-volatile.

Second, the module parameters:

Working voltage: 5--30V, support micro USB 5.0V power supply;

Frequency range: 1Hz ~ 150KHz;

The frequency accuracy: $\pm 2\%$;

Output Current: <30mA;

Output amplitude: Default 5Vp-p (settable);

Operating temperature range: -30 ~ + 70 °.

Third, the parameter settings:

Module has three buttons [Set], [Up], [Down];

Press [Set] key to switch the display four parameters (FR1: PWM1 frequency; dU1: PWM1 duty cycle; FR2: frequency of PWM2; dU2: PWM2 duty cycle), before the handover parameters, there will be corresponding parameter name flash.

Press [Up], [Down] keys to modify the current parameter value (long press can quickly add or subtract fast).

Two PWM each have three preset frequency, the frequency display interface, long press [SET] key to switch between three types of frequencies, three kinds of frequency duty cycle is the same value. (XXX: range 1Hz ~ 999Hz; XX.X: range 0.1KHz ~ 99.9KHz; X.X.X.: range 1KHz ~ 150KHz,).

Fourth, the scope:

As square wave signal generator which generates a square wave signal;
to provide a signal to the stepping motor driver;

Adjustable pulse generation for chip use;

produce variable pulse signal, the control-related circuit (PWM dimming, speed).

Fifth, the serial control

Baud rate: 9600 bps

Data bits: 8

Stop bits: 1

Parity bit: none

Flow control: none

1) Set the PWM frequency

"S1FXXXT": setting PWM1 frequency of XXX HZ (001 ~ 999)

"S1FXX.XT": set the frequency of PWM1 XX.X KHZ (00.1 ~ 99.9)

"S1F: X.X.X.T": setting PWM1 frequency of XXX KHZ (0.0.1 ~ 1.5.0..)

'S1': PWM1

'S2': PWM2

'F': Frequency

'D': Duty Cycle

'T' is the end flag

2) Set the PWM duty cycle

"S1DXXXT": setting PWM1 duty cycle XXX; (001 ~ 100)

"S2DXXXT": set PWM2 duty cycle XXX; (001 ~ 100)

Setting successful return: DOWN;

Setting failback: FALL.