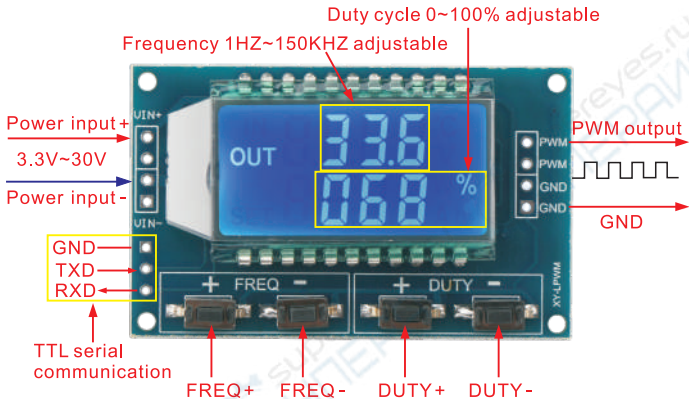


User manual XY-LPWM

DC LCD Display PWM Module Pulse Frequency Square Wave Rectangular Wave Signal Generator



First, the module description:

PWM output, you can set the frequency and duty cycle separately;

Frequency is divided into four ranges, automatically switch:

- (1) XXX (no decimal point): the smallest unit is 1Hz; the value range is 1Hz ~ 999Hz;
- (2) X.XX (decimal point in the hundred) the smallest unit is 0.01Khz, the value range is 1.00Khz ~ 9.99Khz;
- (3) XX.X (decimal point in ten): the smallest unit is 0.1Khz; the value range is 10.0KHz ~ 99.9KHz
- (4) X.X.X (decimal point in ten and hundred): the smallest unit is 1Khz; the value range is 1KHz ~ 150KHz

E.g. Frequency display: 100 indicates that the PWM output 100Hz pulse;

1.01 indicates that the PWM output 1.01K pulse;

54.1 indicates that the PWM output 54.1 kHz pulse;

1.2.4 indicates that the PWM output 124 kHz pulse;

Duty cycle range: 0 ~ 100%;

All setting parameters will be save automatically when power-down.

Second, the parameter settings:

The module has four independent keys, uses to set the frequency and duty cycle; support short press(increase or decrease a unit) and long press (fast increase or decrease), the setting parameters will be saved automatically, besides, it will not be lost when power down.

Third, the module parameters:

Working voltage: 3.3 ~ 30V;

Frequency range: 1Hz ~ 150KHz;

Frequency accuracy: the accuracy in each range is about 2%;

Signal load capacity: the output current can be about 5 ~ 30ma;

Output amplitude: PWM amplitude equal to the supply voltage;

Ambient temperature: -20 ~ +70 °C.

Fourth, the scope of application:

1. Used as a square wave signal generator, generate square wave signal for experimental development and use;
2. Used to generate a square wave signal that controls the motor driver;
3. Generate adjustable pulse for MCU use;
4. Generate adjustable pulse to control the relevant circuit (PWM dimming speed and other applications).

Fifth, serial control (single-chip TTL level communication):

Communication standard: 9600 bps Data bits: 8

Stop bit: 1

Check digit: none

Flow control: none

1. Set the PWM frequency

“F101”: Set the frequency to 101 HZ (001 to 999)

“F1.05”: set the frequency to 1.05 KHZ (1.00 ~ 9.99)

“F10.5”: Set the frequency to 10.5KHZ (10.0 ~ 99.9)

“F1.0.5”: set the frequency of 105KHZ (1.0.0 ~ 1.5.0)

2. Set the PWM duty cycle

“DXXX”: set the PWM duty cycle to XXX; (001 ~ 100)

Such as D050, set the PWM duty cycle is 50%

3. Read the set parameters

Send a “read” string to read the set parameters.

Set successfully return: DOWN;

Setup failed to return: FALL.