RBS124501Hz-150 Khz Signal Generator PWM Board Datenblatt

Specification:

- 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 degree

Features:

- LCD display frequency and duty cycle, very clear, PWM output can be set to the frequency and duty cycle.
- Wide frequency range, high precision.
- Serial communication, TTL level.
- Used as a square wave signal generator, generate square wave signal for experimental development and use.
- Used to generate a square wave signal that controls the motor driver.
- Generate adjustable pulse for MCU use.
- Generate adjustable pulse, control the relevant circuit (PWM dimming speed and other applications).
- Serial control (single-chip TTL level communication).
- Fine workmanship and good performance.
- Stable and reliable.
- Easy to use.
- Long service life.

Frequencies:

Frequency is divided into four ranges, automatic switching:

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

    100 indicates PWM output 100Hz pulse;

    1.01 indicates PWM output 1.01K pulse;

    54.1 indicates that the PWM output has a pulse of 54.1 kHz;

    1.2.4 indicates that the PWM output is 124 kHz pulse;

    Duty cycle range: 0 ~ 100%

Parameter Settings:

- The module has four independent keys, used to set the frequency and duty cycle.
- Support touch (increase or decrease a unit) and long press (fast increase or decrease).
- The parameters automatically save, power down Not lost.

Communication:

- 9600 bps Data bits: 8
- Stop bit: 1
- Check digit: none
- Flow control: none

1. **set the frequency of the PWM**

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

   "F1.05": set the frequency of 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)

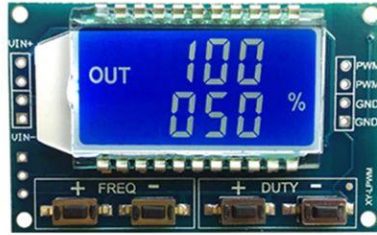   Such as D050, set the PWM duty cycle is 50%

3. **read the set parameters**
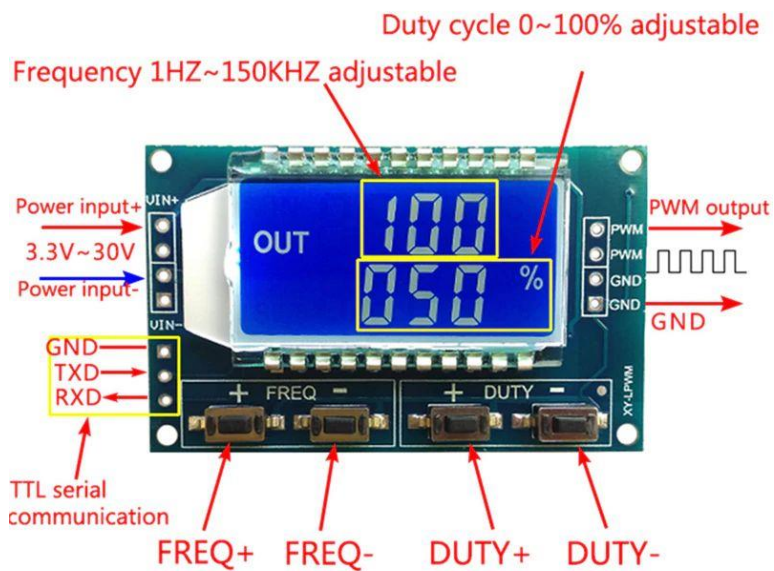
   Send a "read" string to read the set parameters.

   Set successfully return: DOWN.

   Setup failed to return: FALL.

Normal display   "OUT"

OUT 100
050 %

Setting display   "SET"

100
050 %
SET

Frequency 1HZ~150KHZ adjustable

Duty cycle 0~100% adjustable

Power input+
3.3V~30V
Power input-

OUT 100
050 %

PWM output

GND

GND
TXD
RXD

TTL serial
communication

FREQ+   FREQ-   DUTY+   DUTY-

Output PWM amplitude=Input voltage