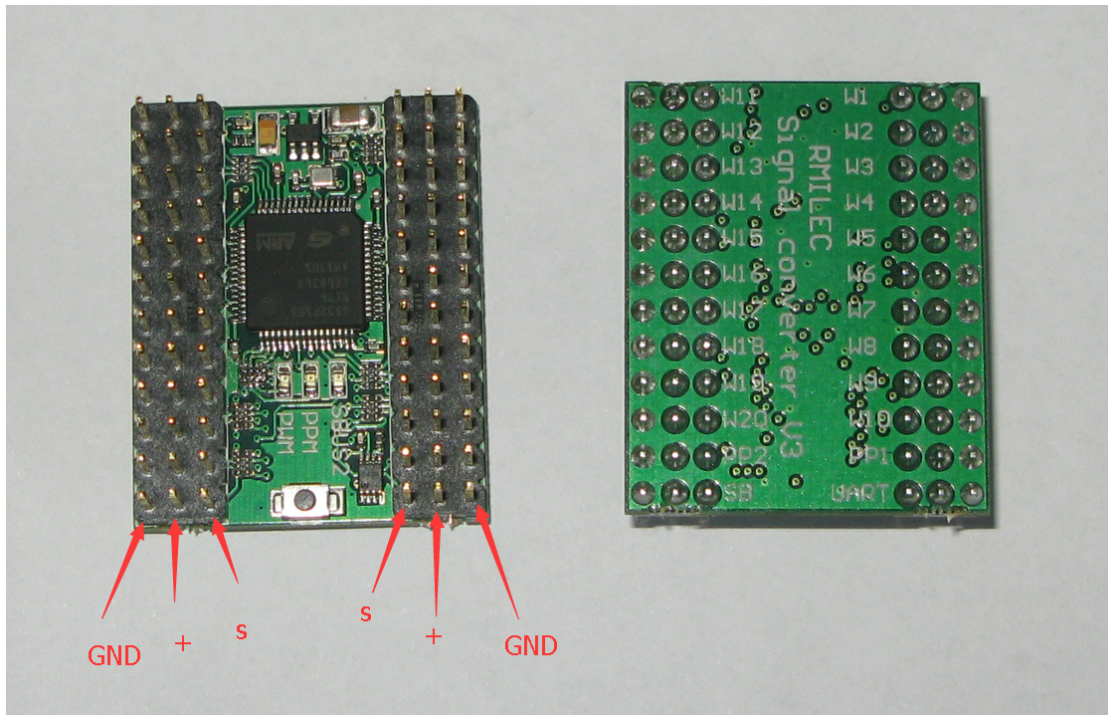


## Multi-unity signal Converter, Signal analyzer description



Size : 35.6 \* 29 mm

Weight : 8.5 grams

Precision : 250 nanoseconds

Voltage : 3.3-12V Support for reverse protection

Conversion speed: Interrupt decoding without waiting after the signal is collected

pin header: 2.95 mm longitudinal spacing receiver pin header

## Function

Mode 1: PWM signal converted into PPM signal and sbus signal. PWM signal analysis.

Mode 2: Two-way ppm signals converted into PWM signals and sbus signals. Two-way PPM signal analysis.

Mode 3: Sbus signal converted into PWM signal and a two-way ppm signal. Sbus signal analysis.

# Analytical capabilities

Simultaneous analysis of 20-channel PWM signal

Simultaneous analysis of 2-channel PPM signal, PPM signal can contain 4-20 proportional channels, Up to 40 signals can be identified.

1-channel Sbus signal analysis, including 16CH proportional channels, 2CH switch channels and receiver status

## Mode Setting method

Because some control board has bidirectional communication function, use automatic detection can cause the signal misjudgment, so in order to guarantee the reliability, this product chooses the input signal using the method of button setting.

The front of the product has three LEDs, representing the PWM input mode, ppm input mode and Sbus input mode respectively.

Press and hold the Settings button then power the conversion board, three lights flashing at the same time, release the button at this time to enter the setup mode.

Press the button, the function mode will switch once, and the corresponding LED lighted, select the desired input signal then power off ,it can save conversion mode automatically.

## Interface

W1-W20 represents PWM1 to PWM20, pulse-width input and output, bidirectional interface

PP1-PP2 represents PPM1 and PPM2, pulse width modulation input and output, bidirectional interface

SB represents Sbus interface, digital bus input and output, bidirectional interface

UART represents TTL serial output baud rate 115200, 8N1, one-way output interface

[illegible]

The above picture is the result of PPM analysis, PPM1 for PPM1 pin input data, PPM2 for PPM2 pin input data, when pin no-load or data error will show no signal

## Conversion rules

### PWM Input Mode

PWM1-PWM10 Correspondence PPM1

PWM11-PWM20 Correspondence PPM2

The number of PPM output channels automatically adapts to the PWM signal of the access. In other words, access to the 10-channel PWM signal will output 10CH mode PPM signal, access to the 5-channel PWM signal will output 5CH mode ppm signal.

pwm1-16 corresponds to 1-16 proportional channels in SBUS, PWM17 and PWM18 correspond to 17 182 switch channels in SBUS, PWM17 PWM18 is greater than 1.5ms, SBUS to ON, otherwise convert to off.

The pins not connected are filled in 1.5 milliseconds.

### PPM Input mode

PPM1 Correspondence PWM1-PWM10

PPM2 Correspondence PWM11-PWM20

PPM1+PPM2 corresponds to sbus1-18, the first signal of PPM2 is automatically appended to the last signal of the PPM1 and converted to a sbus signal.

It automatically outputs 1.5 milliseconds without a signal or a corresponding condition.

### SBUS Input Mode

Sbus 1-18-Channel corresponds to PWM 1-pwm18, the on switch channel is converted to 1.9 milliseconds, and off is converted to 1.1 milliseconds

Sbus 1-10 channel corresponds to the PPM1 1-10 channel

Sbus 11-18 channel corresponds to the PPM2 1-8 channel