8x8 Red Blue Green Yellow Audio Indicator

1. Introduce.

1>. Working voltage: 5V.

2>. PCB size: 75*45mm.

3>. There are four fixed mounting holes on PCB.

4>. It is no need for filter circuit. It can driver dot matrix, spectrum indicating and so on.

5>. We have programmed the code to FFT2088.It can supply 8*8 LED.

6>. It design for audio equipment. Being used in all kinds of audio output device widely.

7>. Professional audio decoding. It can display equency and amplitude for audio signal.

8>. There are three display mode can be selected(Fast flash, Slow flash 1,Slow flash 2).Provide the feeling of cool.

9>. There are three Sensitivity mode can be selected(High,Medium,Low).To adapt to the different power supply environment.

10>. Audio automatic gain control. Always show the best visual effect.

11>. Circuit design is simple. Add current limiting resistor drive LEDs directly.

2. Function declaration.

Function Menu selection by a button. It has three different operations as following:

1>. Test Mode.

Press button before power on, then power on, IC will enter into test mode automatically. In this mode, it can test led and circu it.

2>. Change Display Mode. (press the button less than 1.5 seconds)

It will change a display mode by short press one time button(less than 1.5 seconds).

1). S1 Mode: slow flash 1. It will display “S1” on LED screen. In this mode, It's the slowest display and update.

2). S2 Mode: slow flash 2. It will display “S2” on LED screen. In this mode, Its speed is appropriate.

3). F Mode: fast flash. It will display “F” on LED screen. In this mode, It's the fastest display and update.

3>. Sensitivity Mode. (press the button more than 1.5 seconds)

It will change signal detection sensitivity by long press one time button(more than 1.5 seconds).

1). L Mode: low sensitivity mode. It will display “L” on LED screen. In this mode, It can filter weak jamming signal, It is not sensitive

to the interference of power supply.

2). M Mode: medium sensitivity mode. It will display “M” on LED screen. In this mode, It can filter the weaker jamming signal, Signal detection sensitivity.

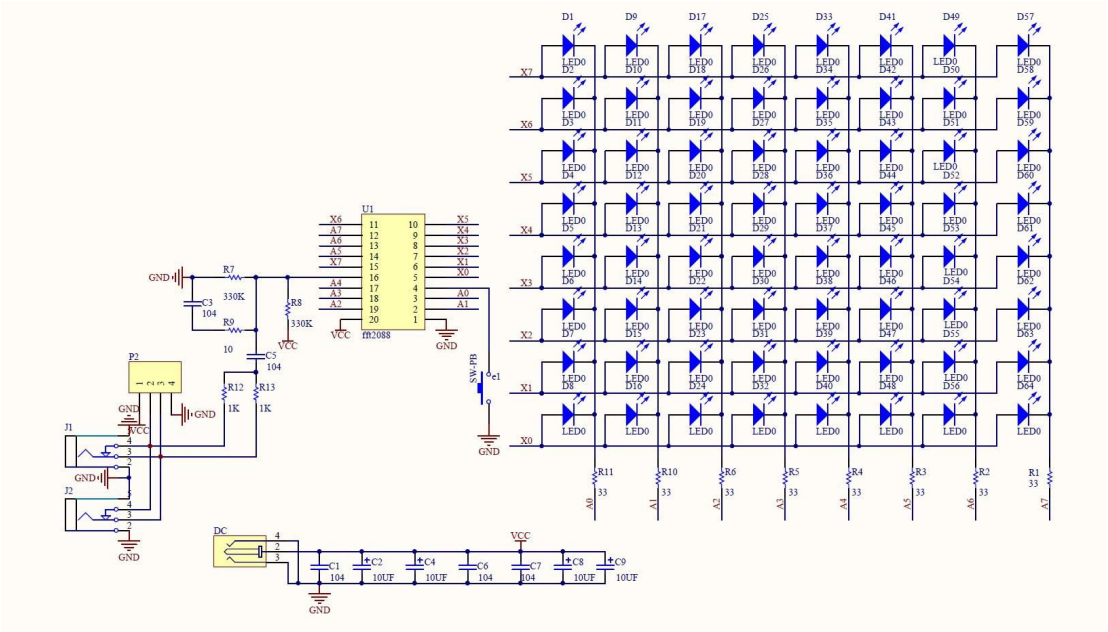
3). H Mode: high sensitivity mode. It will display “H” on LED screen. In this mode, It can filter the weaker jamming signal, It is sensitive to the interference of power supply.

3. Component listing.

Component	Number	Parameter	Quantity
Resistance	R1-R6,R10,R11	33ohm	8
Resistance	R9	10ohm	1
Resistance	R7,R8	330k ohm	2
Resistance	R12,R13	1K ohm	2
Capacitance SMD	C4	10uf	1
Capacitance SMD	C1-C3,C5	0.1uf 104	4
IC FFT2088	U1	SOP-20	1
Red LED		0805	16
Blue LED		0805	16
Green LED		0805	16
Yellow LED		0805	16
Button	E1	2-Pin	1
Audio socket	J1,J2	3.5mm SMD	2
DC power socket	DC	3.5mm SMD	1
PCB			1

NOTE 1: This kit has 64pcs LEDs, user can weld LED on any sol der joints for D1 to D64. but we will recommended user make one row or column in the same LED.

4. Schematic diagram.



5. Identify components in this kit.

1>. Resistance.(NOTE the first two number is mark on resistance. The third is value of resistance)

1). Resistance 3303=334=330K ohm

2). Resistance 100=10=10 ohm

3). Resistance 33=33=33 ohm

4). Resistance 1001=102=1K ohm

2>. Capacitance.

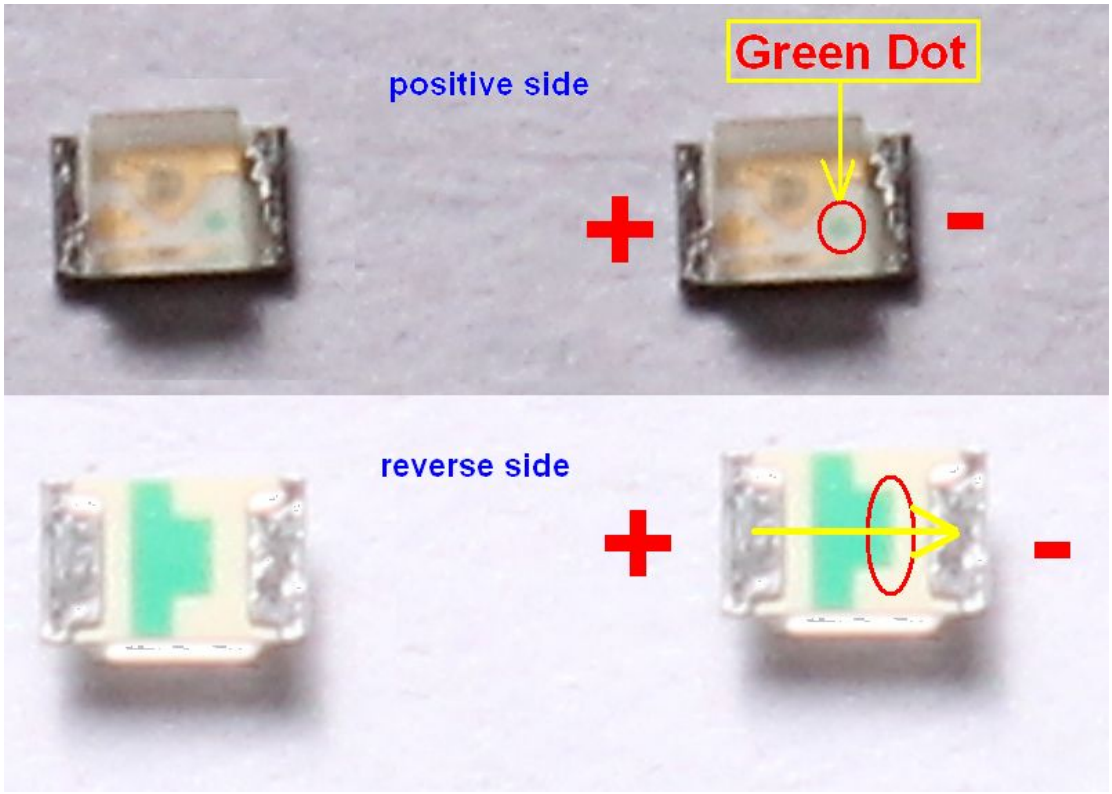
1). 10uf Capacitance: 106, transparent plastic packaging.

2). 0.1uf Capacitance: 104, white hard paper packaging.

3). If user has take out these capacitance and can not identify them. User can identity them by thickness. The more thick is 10uf, the other is 0.1uf.

3>. LED.

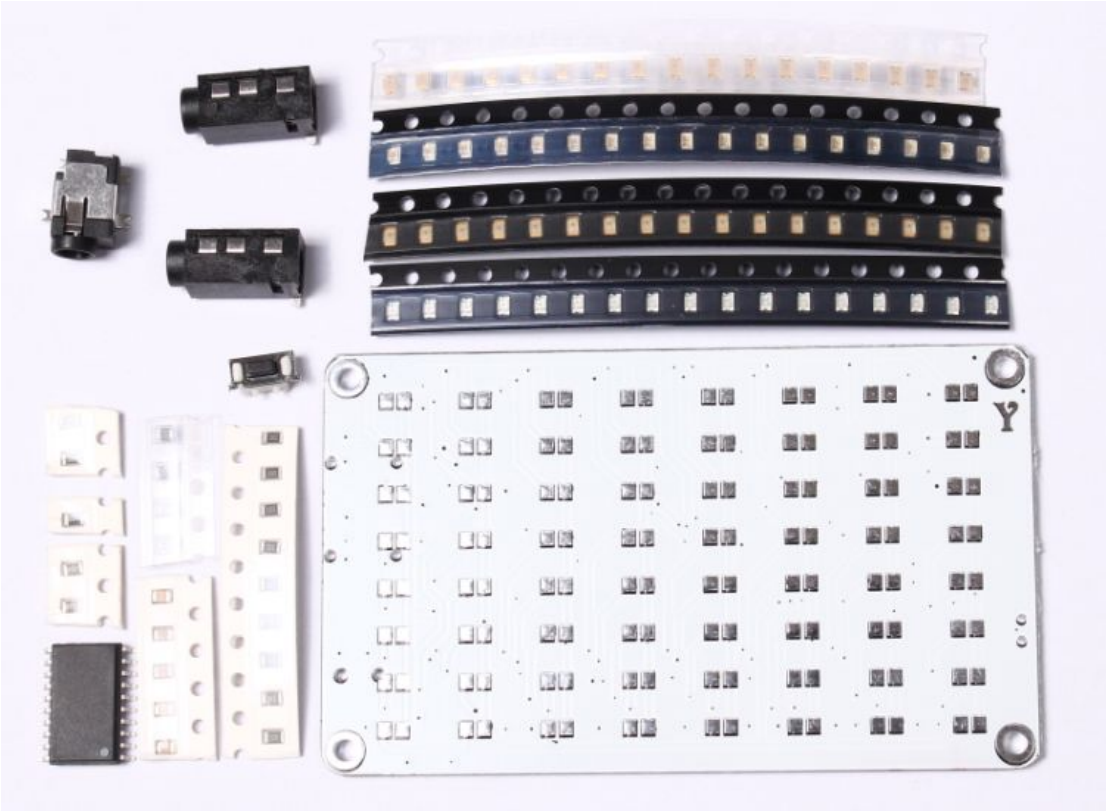
1). User can identify negative pole and positive pole of LED as following picture:

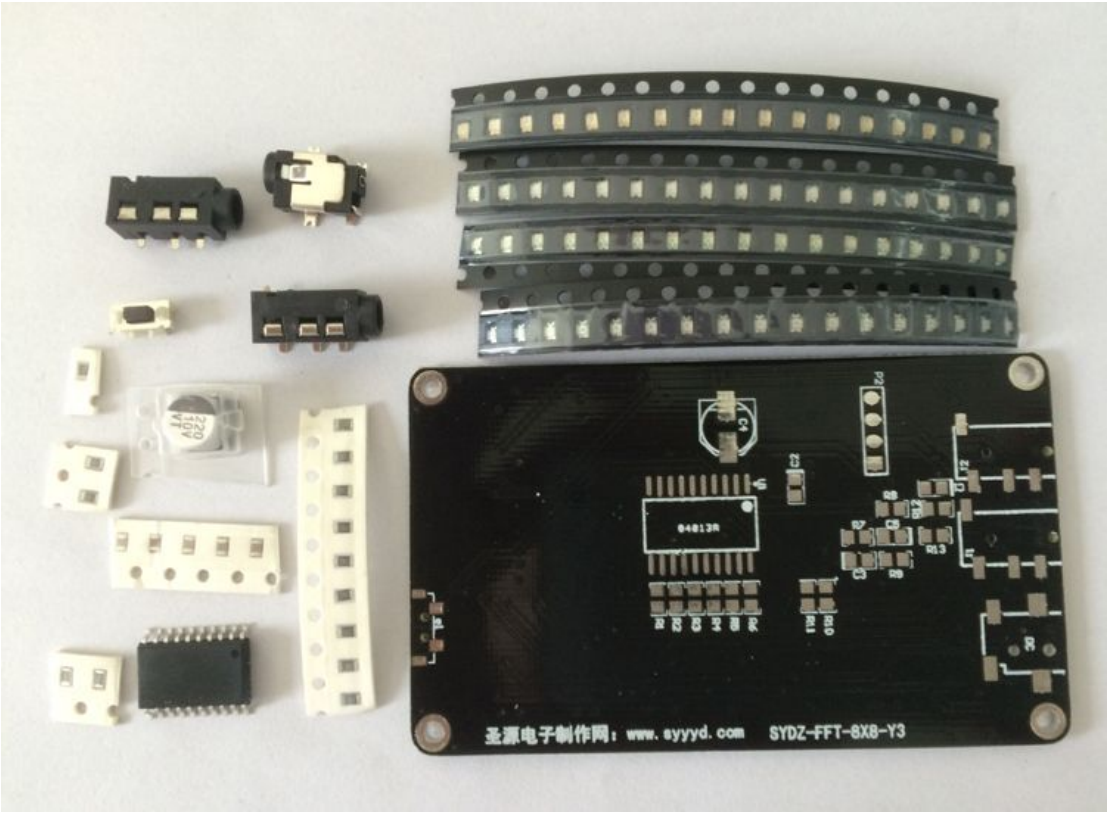


NOTE: Sometime LED will different as picture above. Some LED has two green dots on positive or a triangle-shape on reverse side. The identify way is the same.

2). If your kits have four different color of LED, The color can be detection by digital multimeter or 3.0V battery. (If you test LED by 3V battery, please be carefully. 3V battery can not connect to LED for a long time, our method is just for test. Otherwise LED will be damaged.)

6. Installation manual.



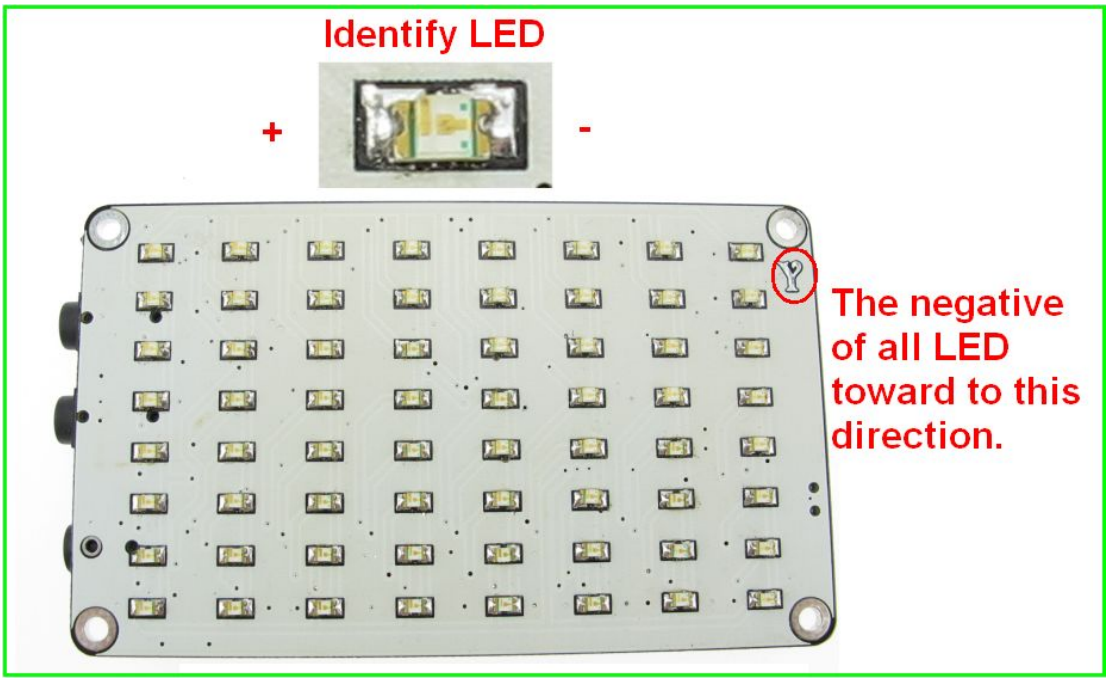


1>.Welding tip:

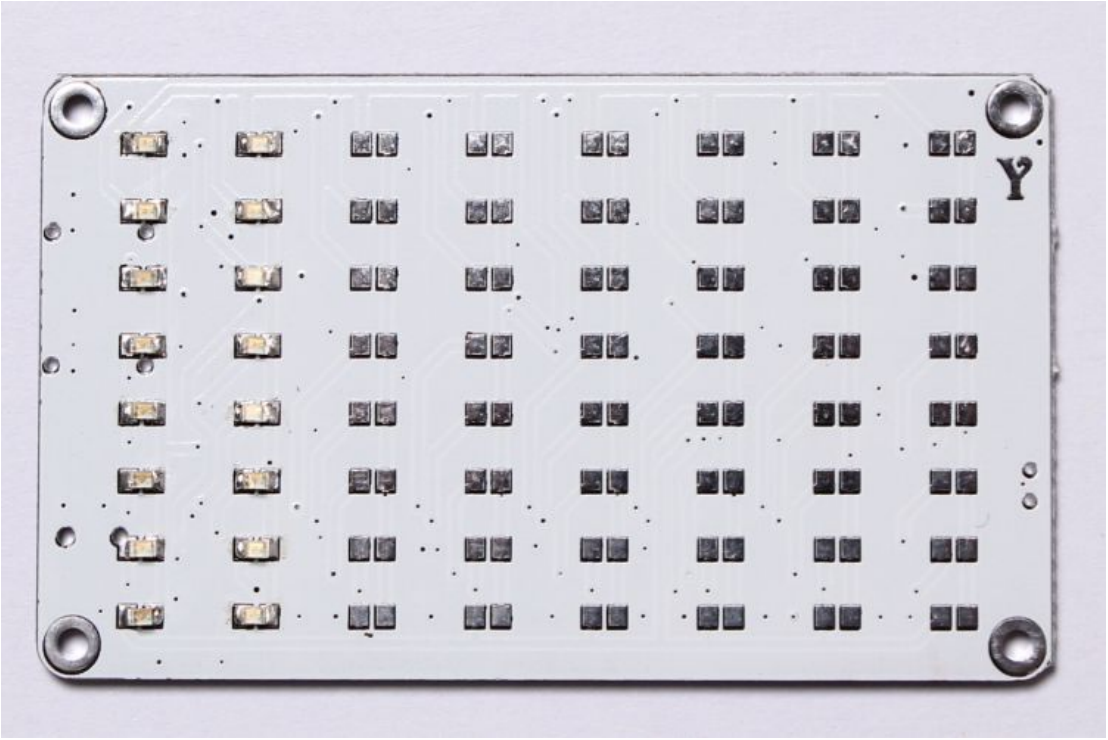
1). Welding began at small components as far as possible, S uch as resistance, capacitance, LED, IC and so on.

2). Weld socket as following: J1, J2, DC.

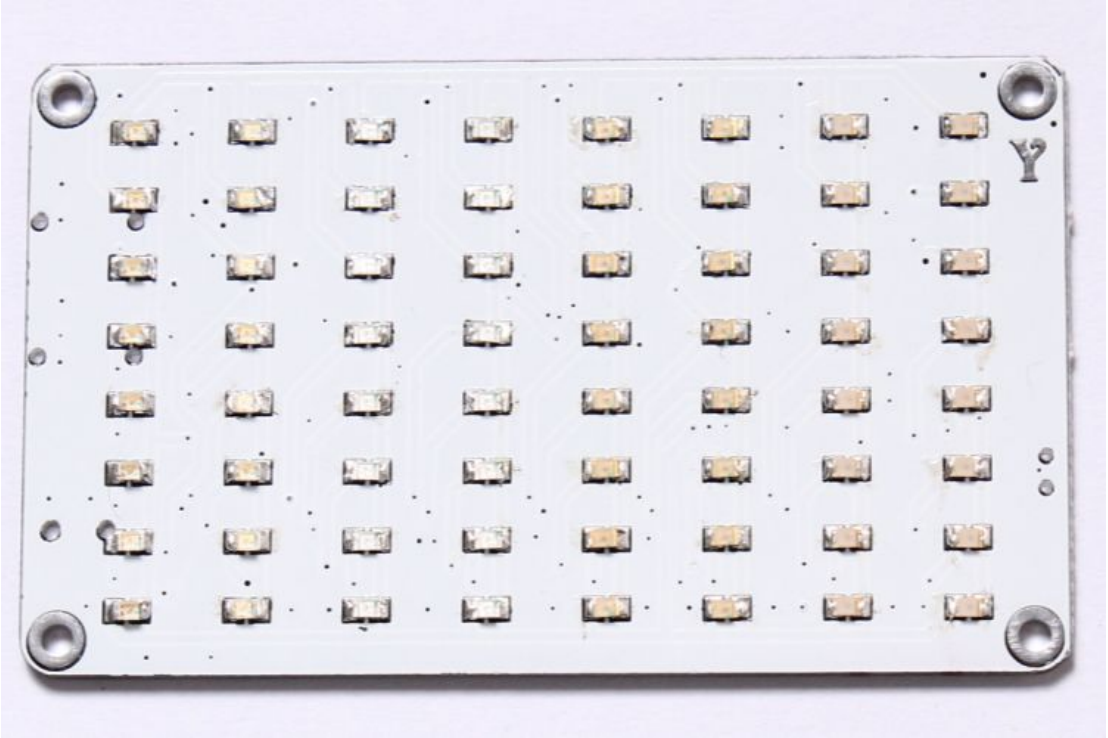
3). Pay attention to the negative pole and positive pole of LED.



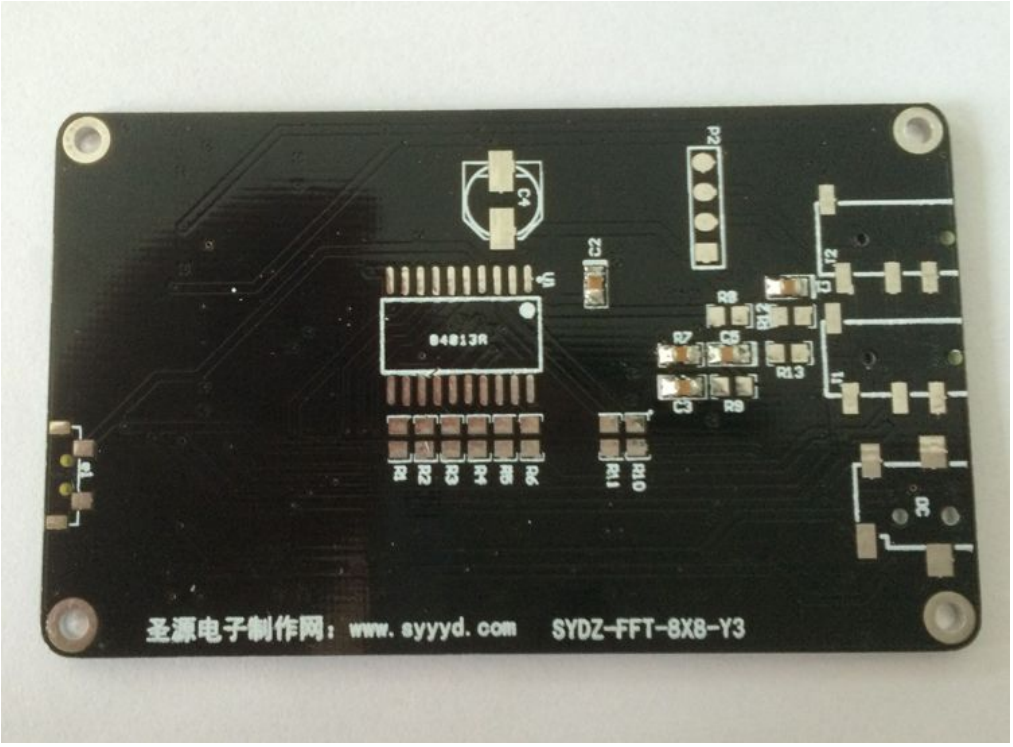
2>.Weld Step 1: Weld two columns blue LED. (We will weld each kinds of color in two columns as blue green red yellow)



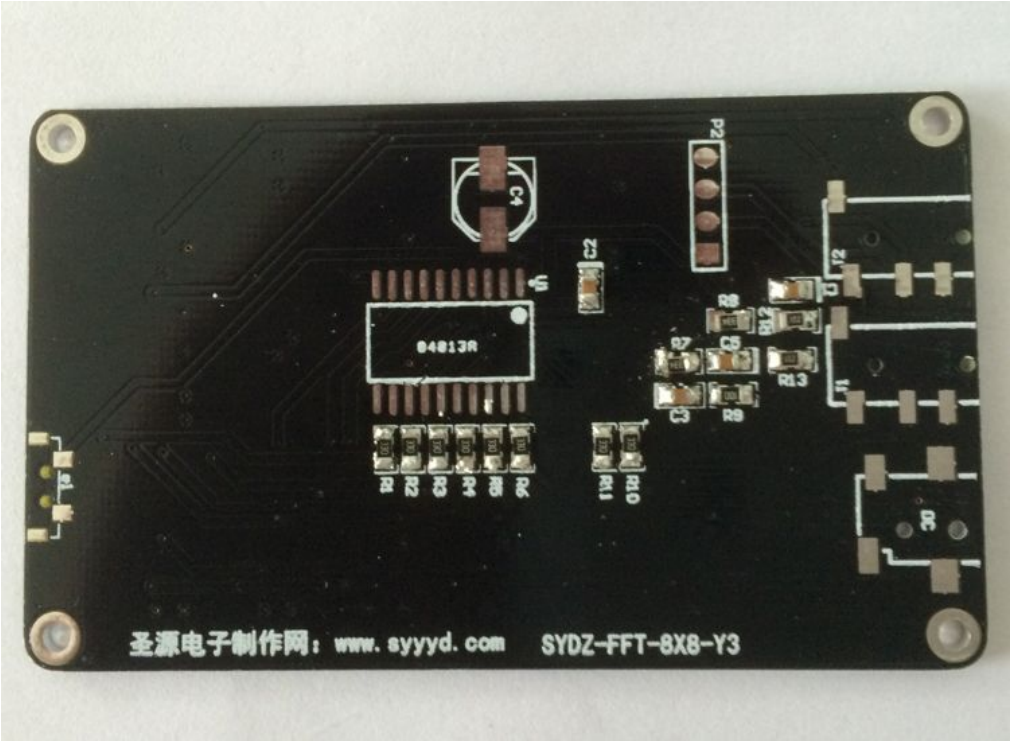
3>.Weld Step 2: weld the others LED.



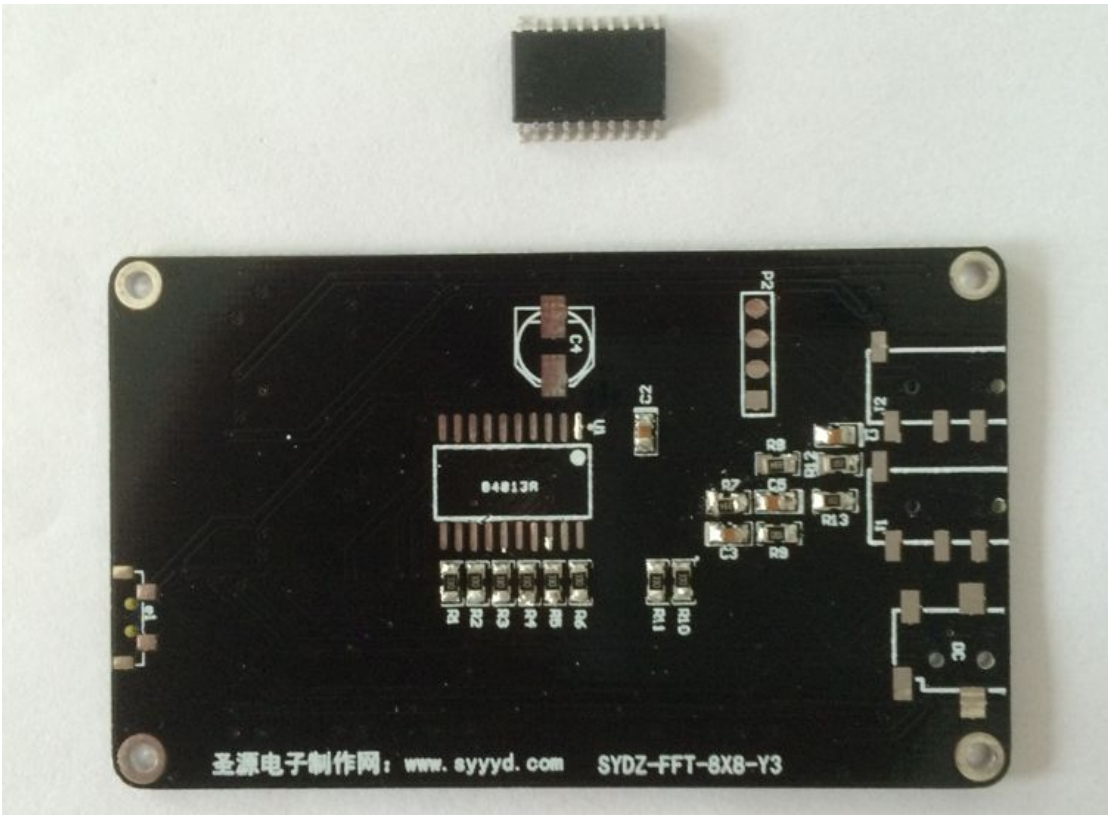
4>.Weld Step 3: weld capacitance.

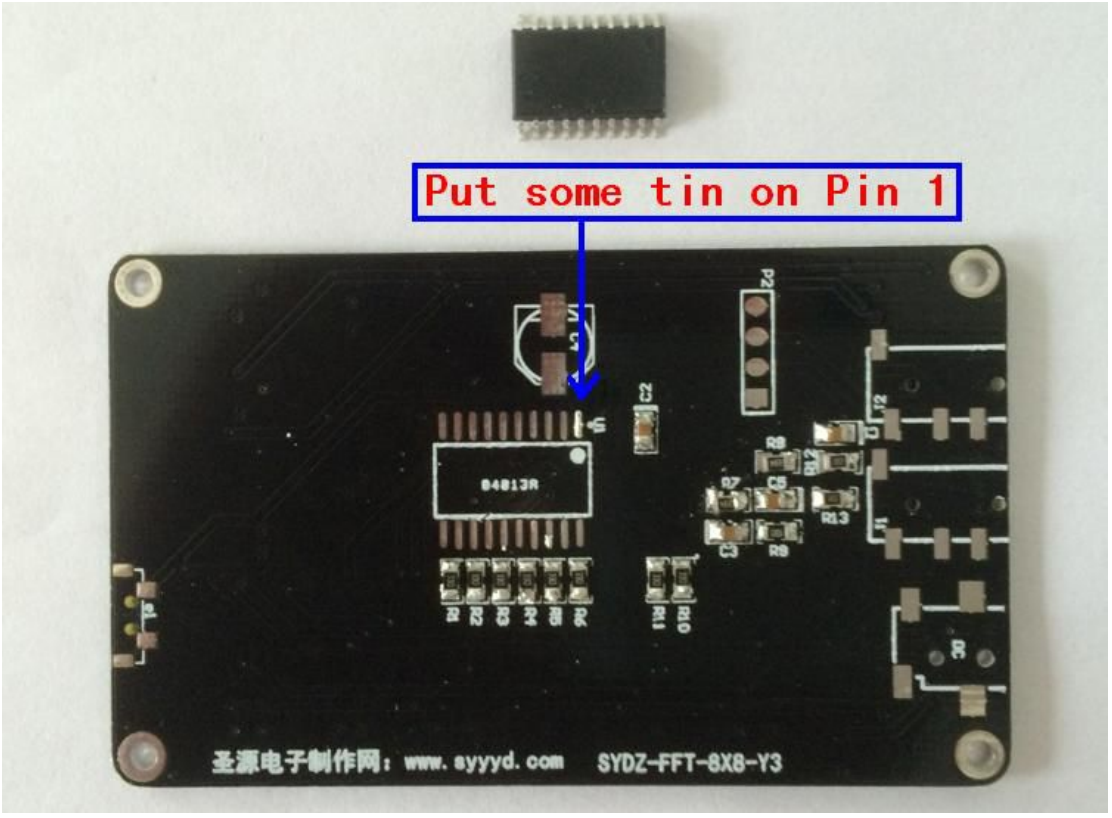


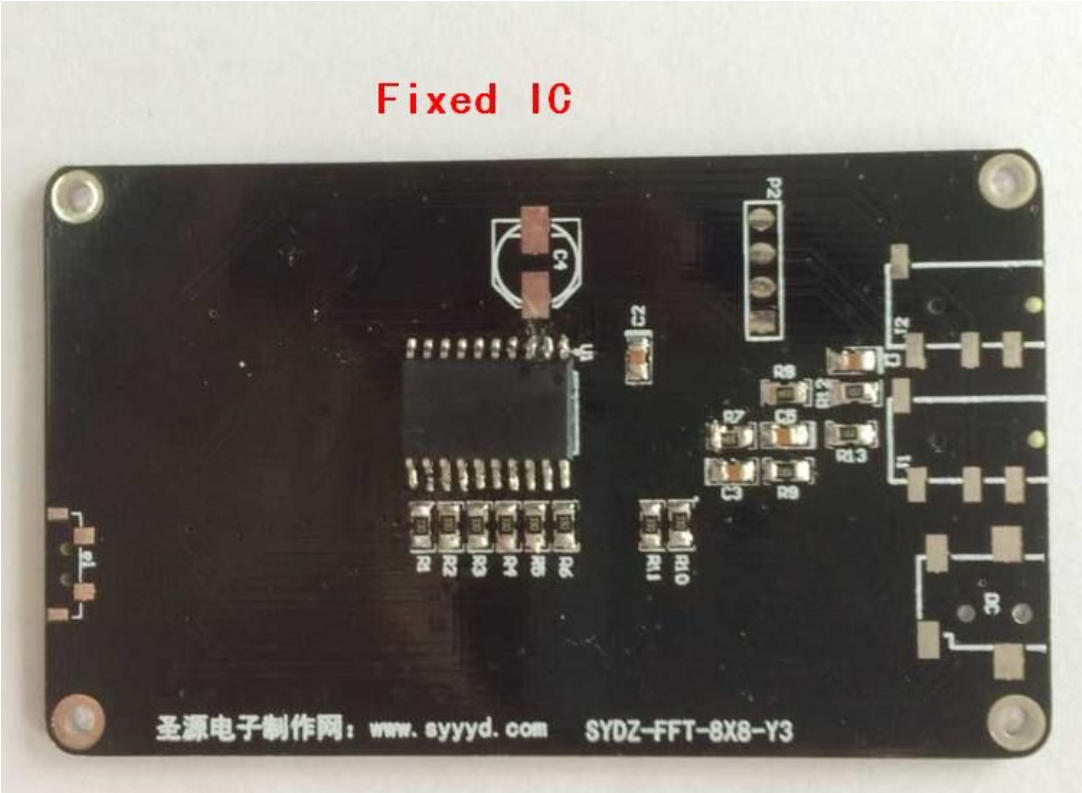
5>.Weld Step 4: weld resistance.



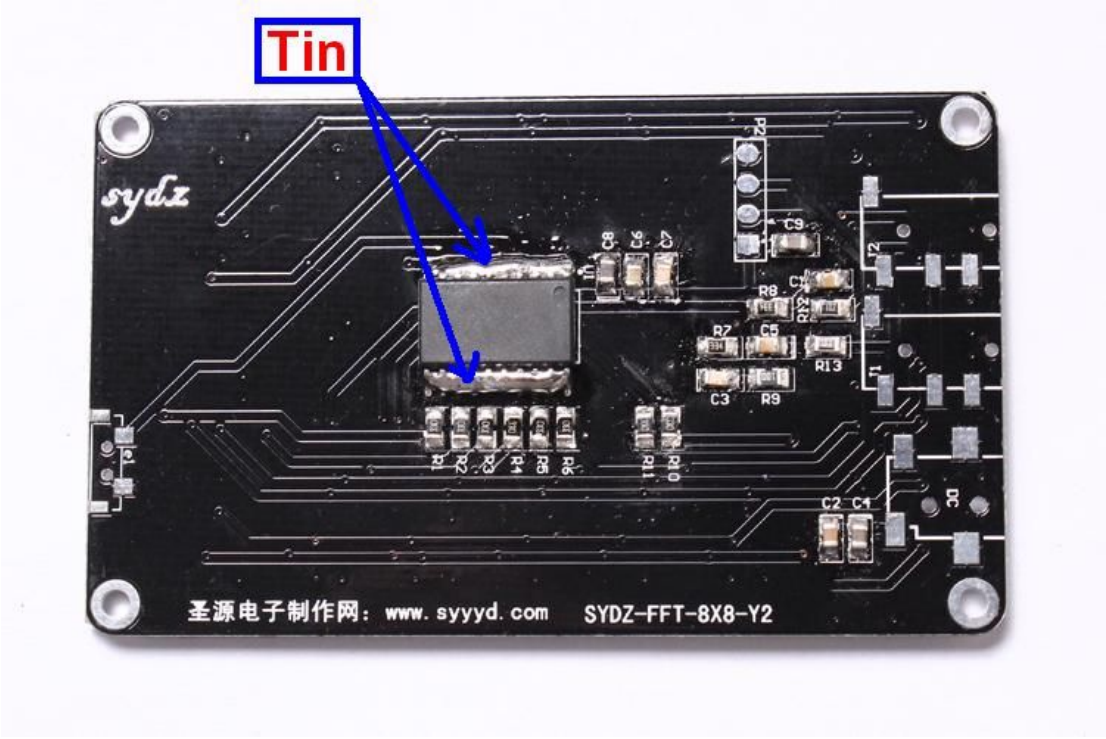
6>.Weld Step 5: weld IC. We will provide a reference for welding method as following picture. You can weld it by your own way. Using our method would waste part of solder.

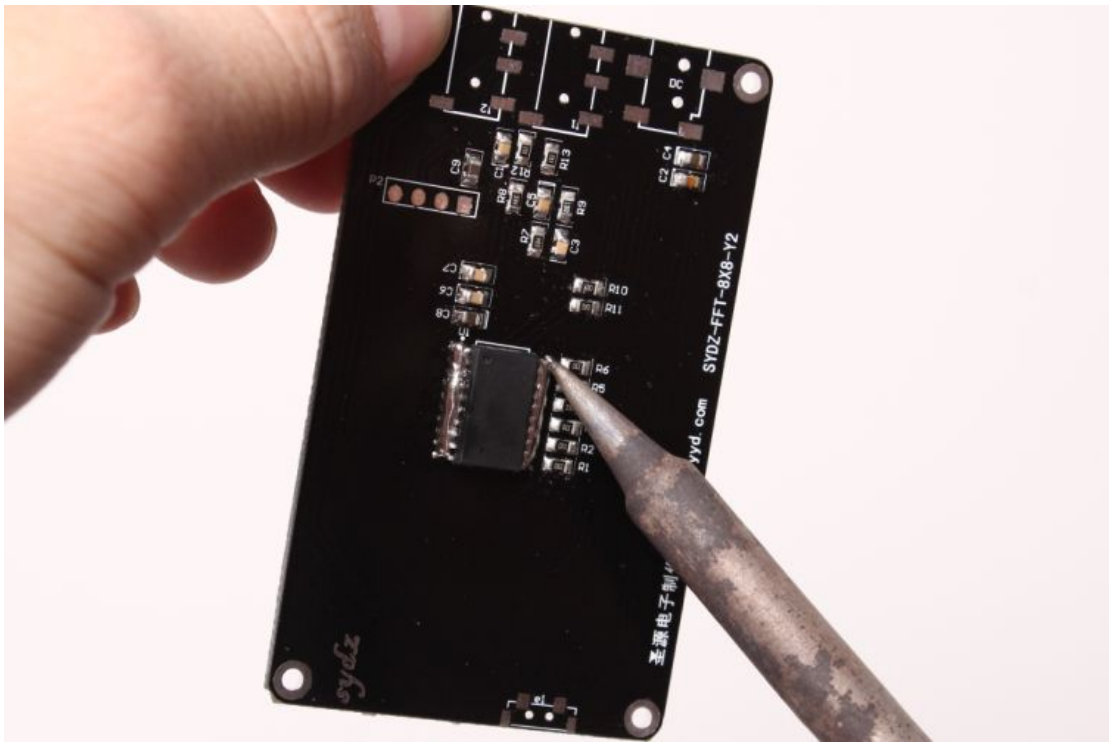

84813R
圣源电子制作网：www.syyyd.com
SYDZ-FFT-8X8-Y3


Put some tin on Pin 1
84813R
圣源电子制作网：www.syyyd.com
SYDZ-FFT-8X8-Y3



NOTE:The following picture are nothing to do with this production. It just demonstrates how to solder the chip!!!

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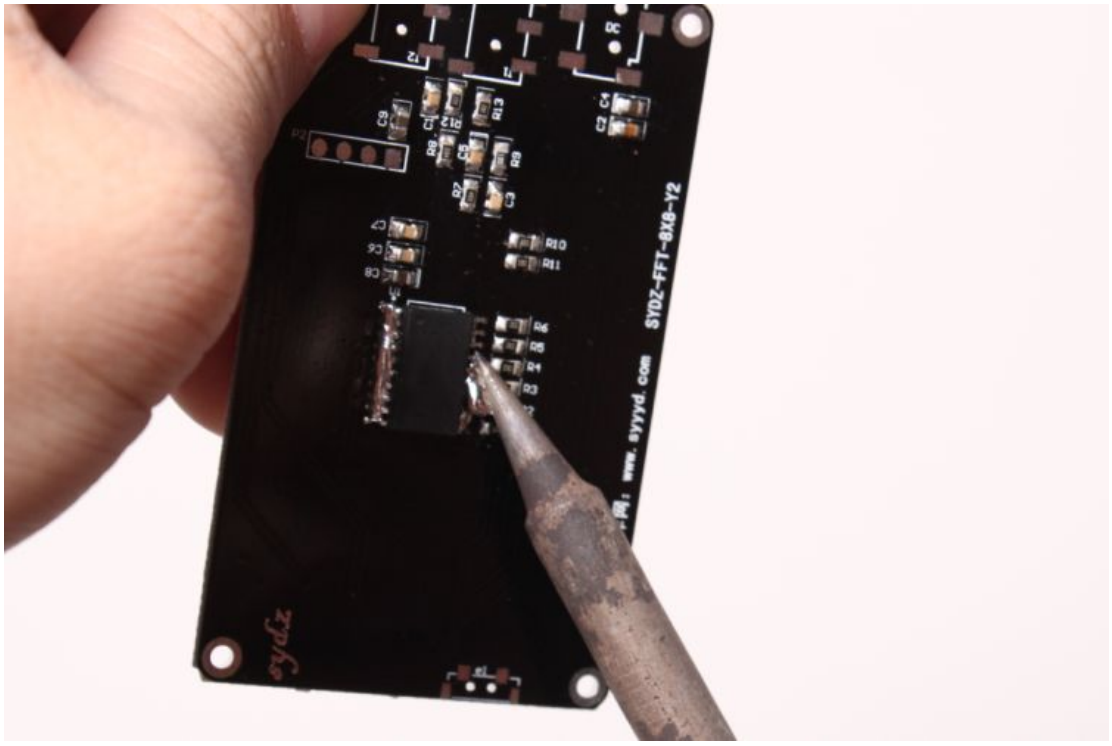
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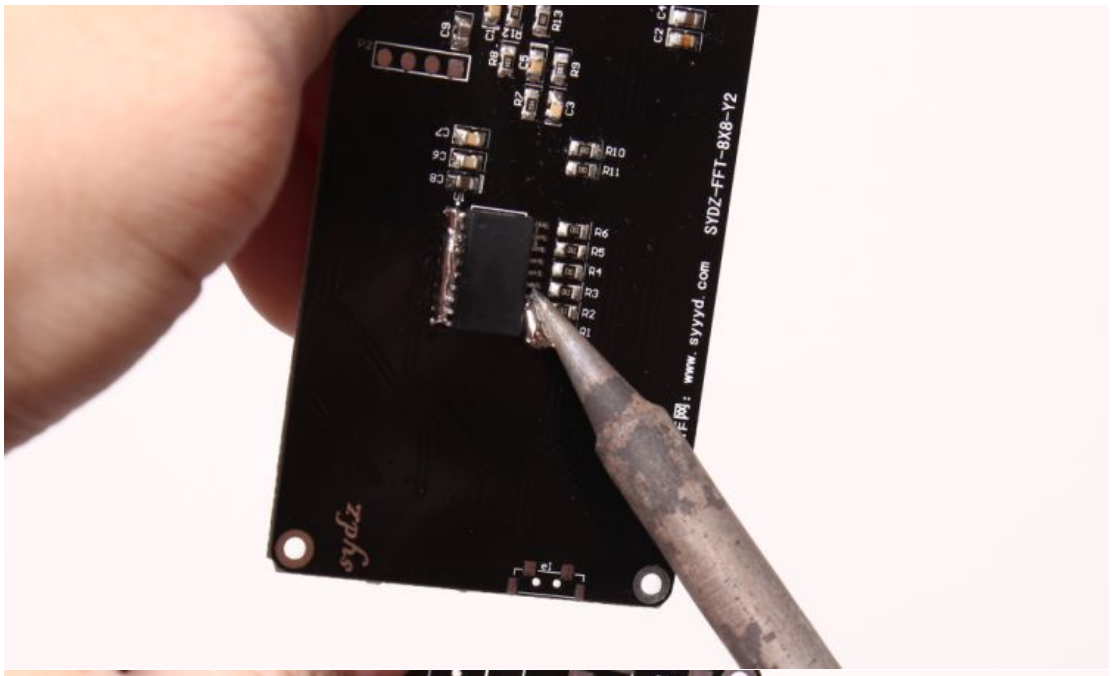
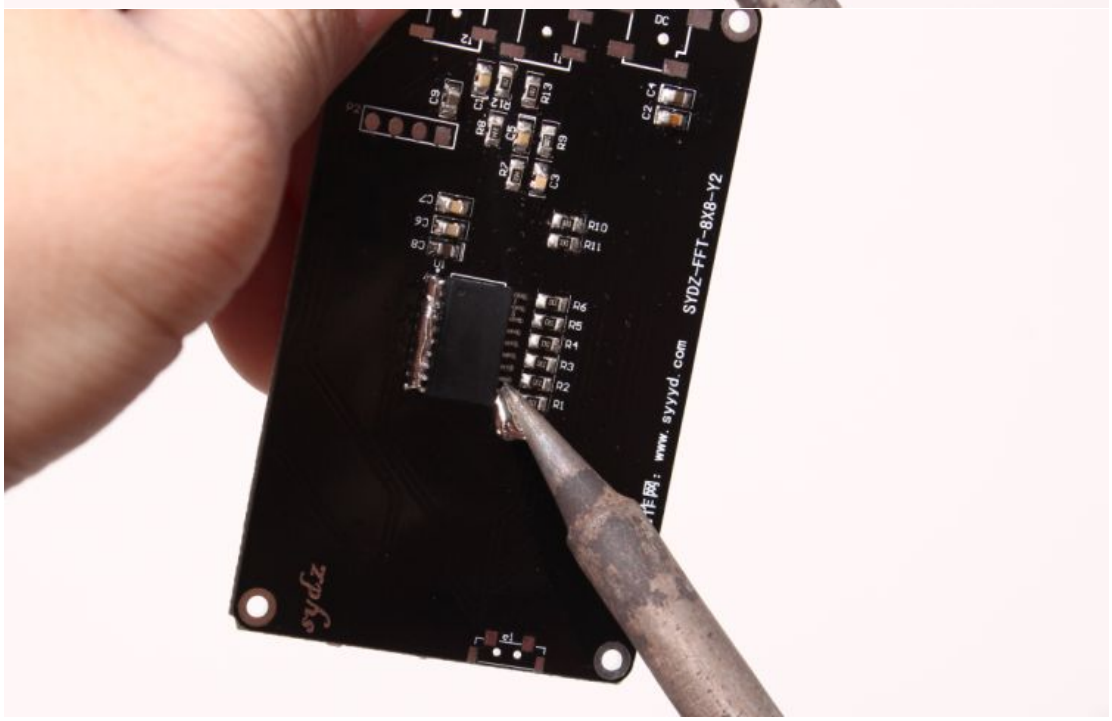

SYDZ-FFT-8X8-Y2
www.syyyd.com
sydz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www.syyyd.com
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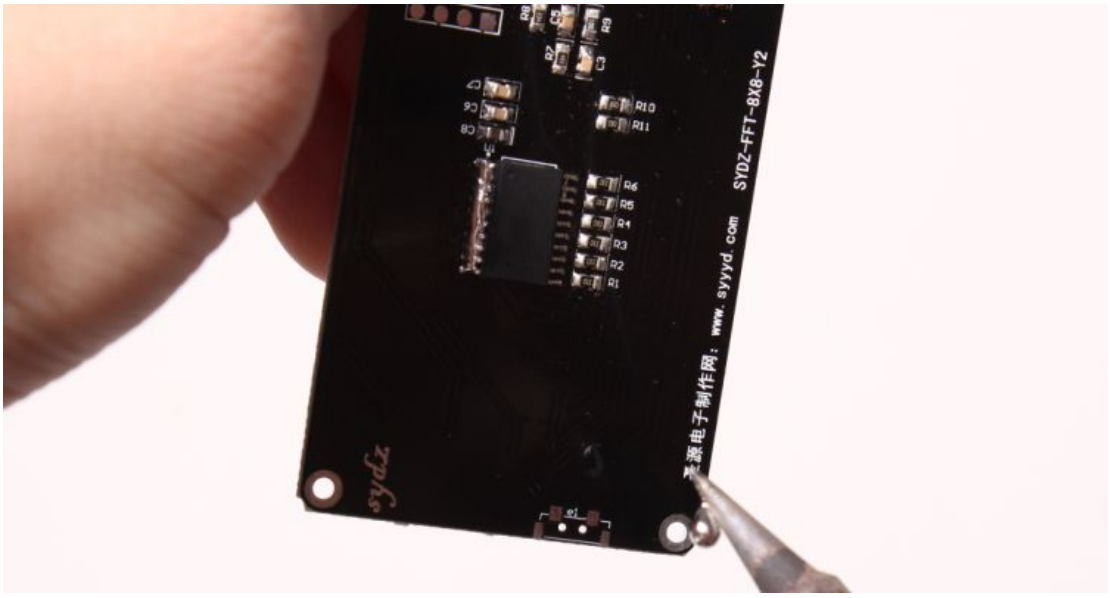
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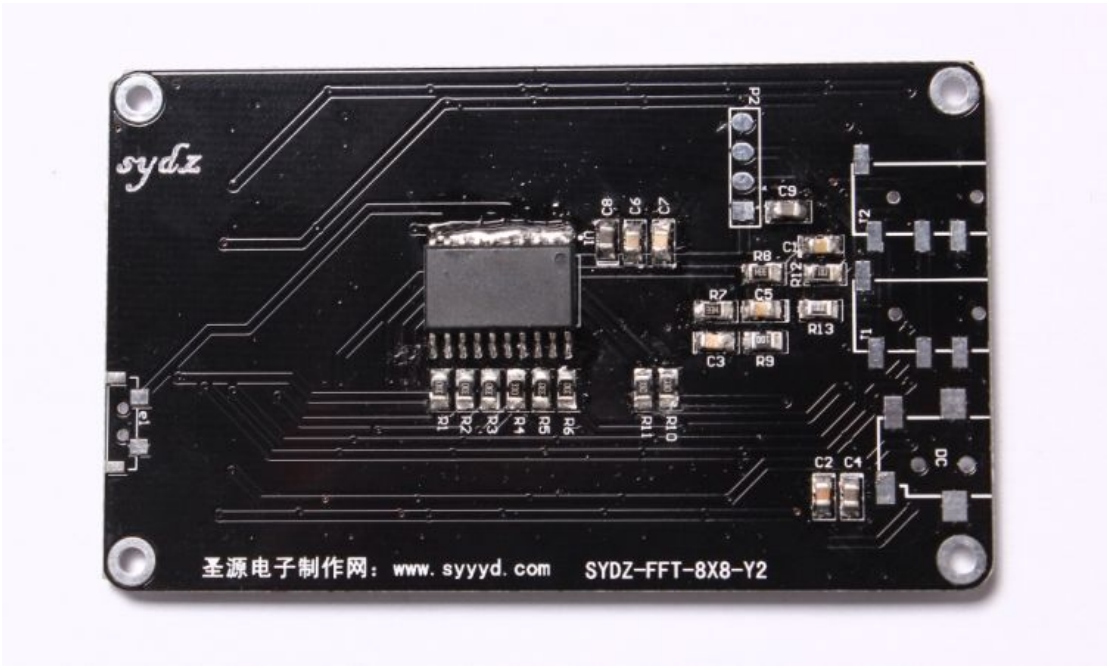
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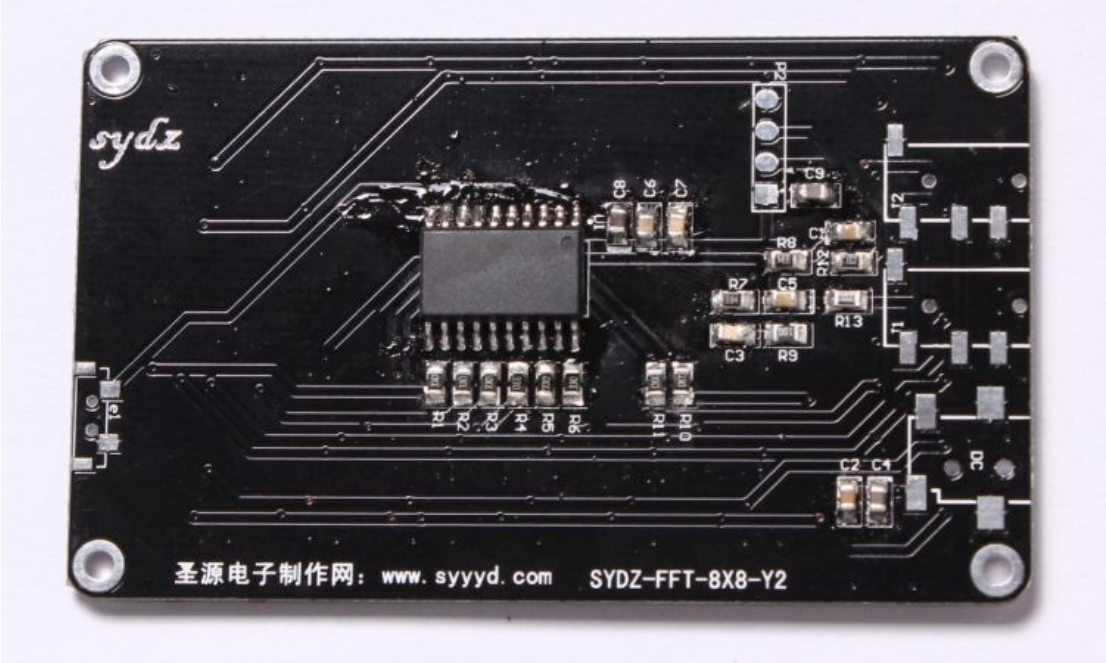
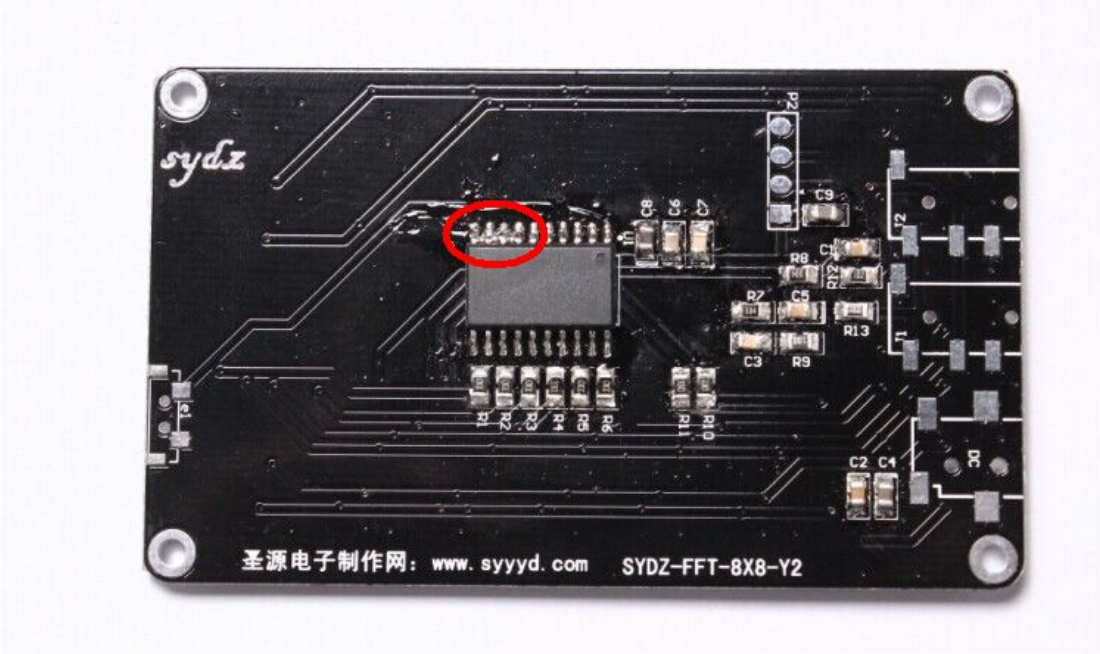
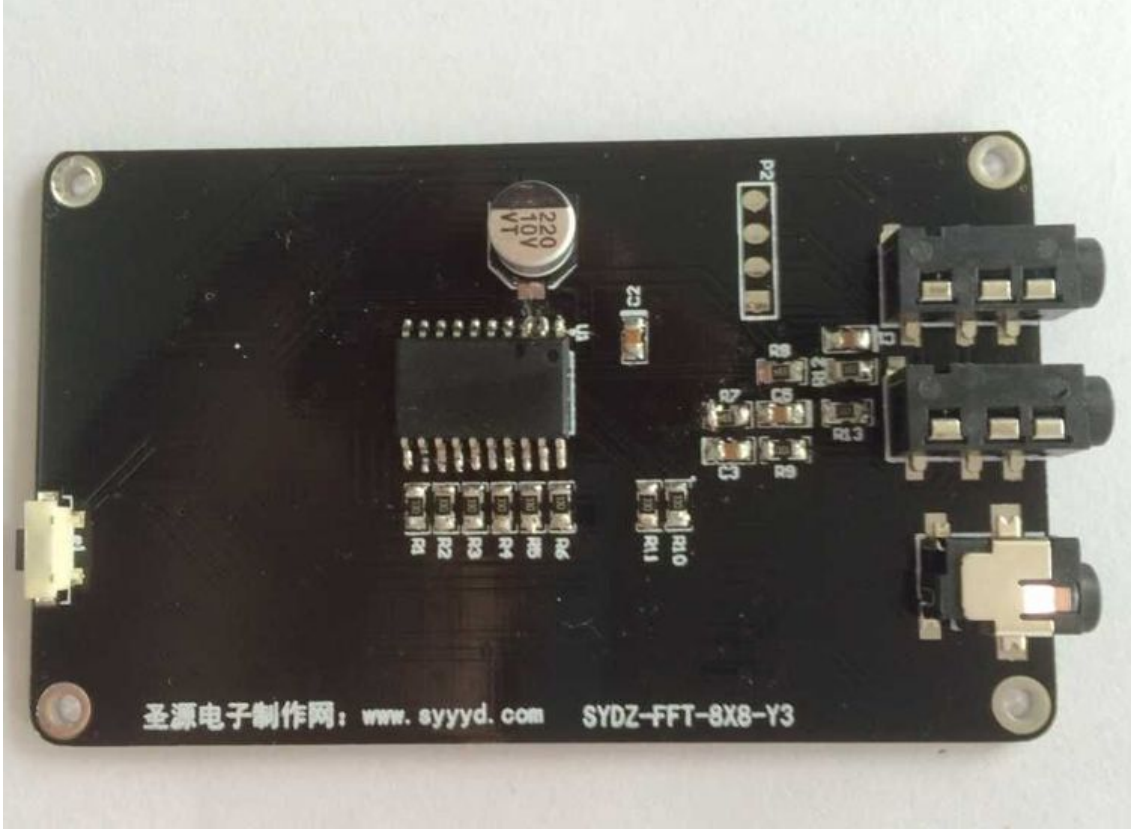
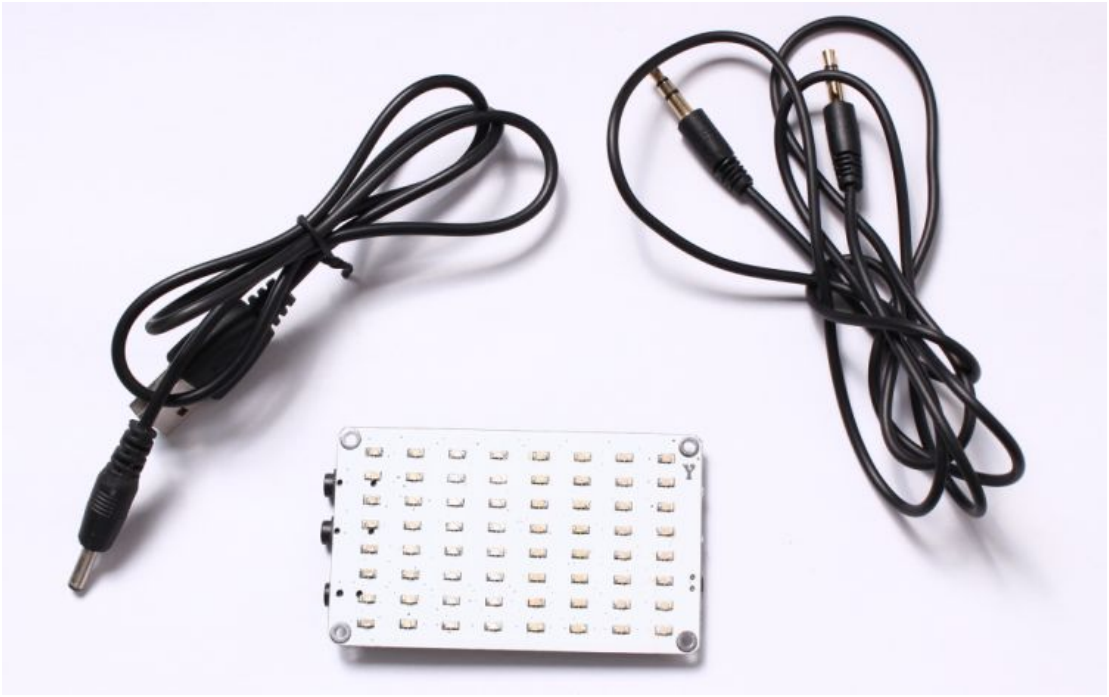
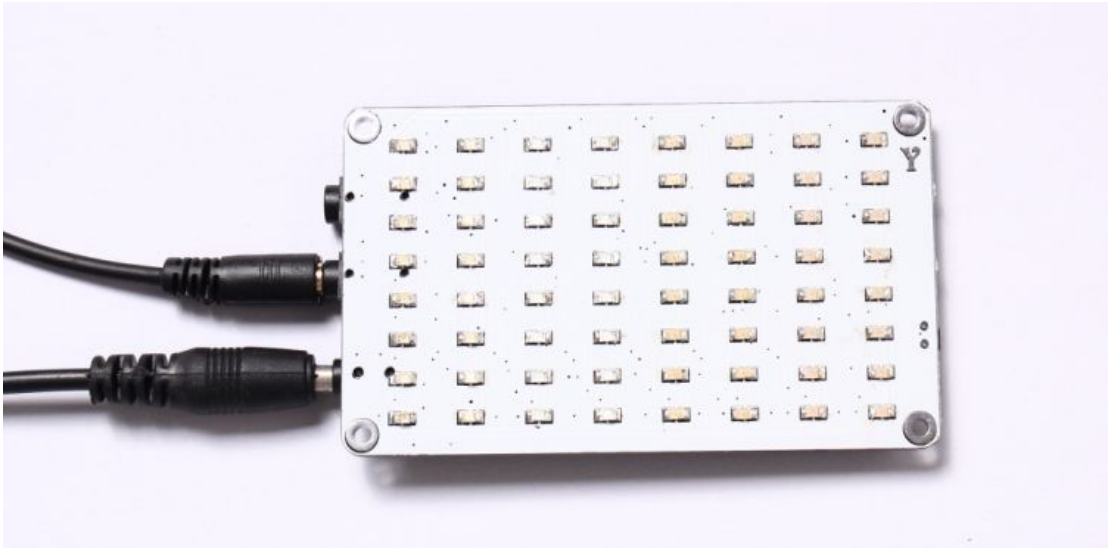
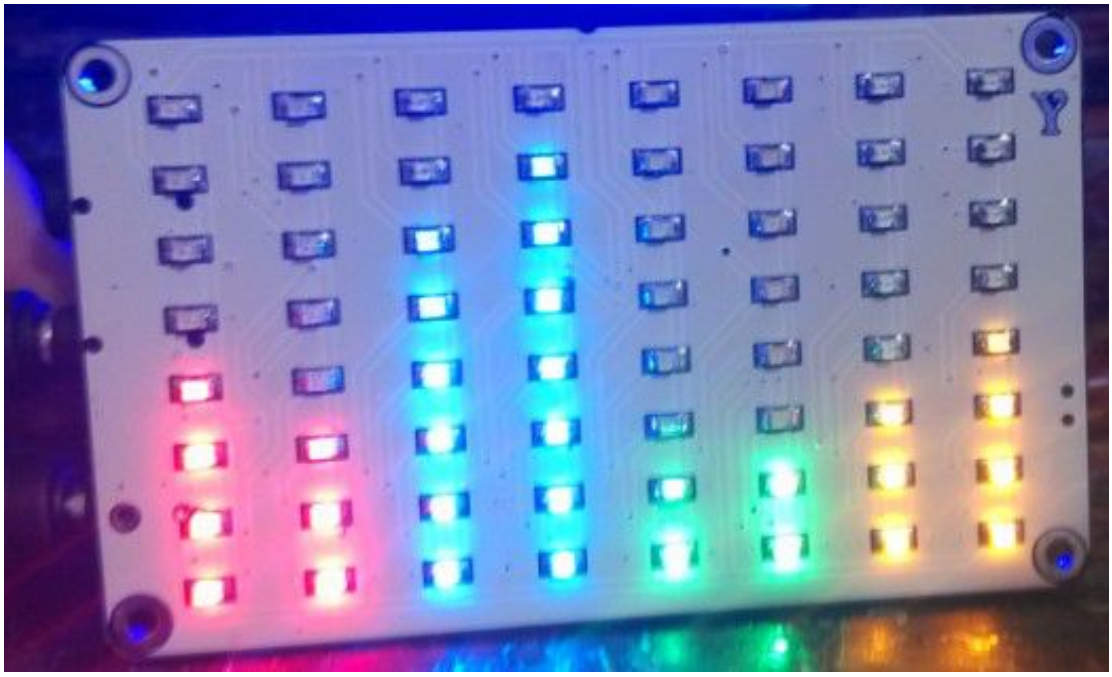


Note: Sometime pins will connect together by this method. In this case, you can use solder sucker as following picture.



7>.Weld Step 6: Weld other components. So far, we have completed the welding.



7. Test. There are two audio interface J1 and J2 on PCB. One connect to audio signal and another connect to audio device such as earphone.