Readme before ordering PCB online V1.3.3

Please Note:

1. Please check the gerber file again before uploading, to avoid lack of files.
Here are requirements of document during production.
2. Panel including v-groove or mouse-bite incurs extra fee，please choose suitable "Panelizing" option, and distinguish "same copies" and "different sub-PCBs".
The two tips above will help you to get your PCB board against time, please note!

Content

Order steps & the meaning of the options:

First. **Choose The right quantity of the PCB.**
All the PCB is named start with PCB quantity. You can order 5, 10, 20, 50, 100, 200, 300 and 500pcs PCBs online fast. We will provide 100% E-test for all PCBs. For 5 pcs, 10pcs, 20pcs and 50pcs PCB fabrication, The lead time will be 4-6 working days.   For PCBs more than 100pcs, the lead time will be 6-8 working days. We will ship the order to you soon after the PCB is fabricated ok.

Second. Select the right parameter of the PCB.

The following is some description of these parameter.

1. PCB area & PCB Dimension

Length(cm)	Width(cm)	PCB Area(cm^2)	Length(cm)	Width(cm)	PCB Area(cm^2)
5	5	25	10	30	300
5	10	50	15	20	300
5	15	75	15	25	375
5	20	100	20	20	400
10	10	100	15	30	450
5	25	125	20	25	500
5	30	150	20	30	600
10	15	150	25	25	625
10	20	200	25	30	750
15	15	225	30	30	900
10	25	250			

For small batch of PCB fabrication(Beyond 50pcs), You can choose the PCB Area instead of the PCB dimension. For example, If the PCB dimension is 2cm*12cm, You can choose PCB area 25 cm^2 instead of 5cm*15cm Max. That will reduce a lot of PCB fabrication fees for you. We can fabricate 38cm*38cm Max PCB. For PCB bigger than that, There will be a little problem for E-test.

For Prototyping PCB fabrication(5pcs, 10pcs and 20pcs), please choose the right dimension selection to avoid possible delay. Because we give special price for the prototyping PCB

fabrication, so that they are not area options.

PCB Dimension | 5cm Max * 10cm Max ▼

2.PCB Color

What we can supply is Green, Red, Blue, Yellow(black silk screen), Black and White. We don't charge color fees.

If needs matte black, Matte Green, purple color PCB, you can contact with service@elecrow.com for premium PCB quotation.

3. PCB surface finished.

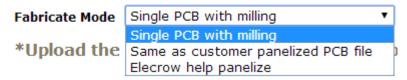We can supply Hasl, Hasl Lead free and ENIG surface finished.   We don't change fees for Hasl Lead free now.

4. PCB panelizing.

We can help panelize PCB after you place the order online. We can also send the panelized gerber file to you for confirm if needed (this may cause one day delay).   Please leave a comment when placing the order.

		Prototyping PCB(5,10 &20pcs)	Small batch of PCB(over 50pcs)
Same PCB panelize		V-cut, Strip of holes, Bridge & Slot is ok	V-cut, Strip of holes, Bridge & Slot is ok
		Panelize fees is $8, $12, $16 & $32	Free
		Can only fabricate as whole panel	Can fabricate as single PCBs
Different PCB panelize		V-cut, Strip of holes, Bridge & Slot is ok	V-cut, Strip of holes, Bridge & Slot is ok
		$12 per extra different sub-PCB Separated by silk screen is free	$10 per extra different sub-PCBs.
		5 max different PCBs.	5 max different PCBs.
How to panelize		Send us the panelized gerber file	
		Leave a comment how many PCBs needed and ask us to help panelize for V-cut	

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5. Fabricate Mode.

There are 3 selections for this PCB parameter.

Fabricate Mode | Single PCB with milling ▼
Single PCB with milling
*Upload the | Same as customer panelized PCB file
Elecrow help panelize

Fabricate Mode	Description
Single PCB with milling	We will fabricate the PCB as single PCBs.
Same as Customer panelize PCB file.	We will fabricate the PCB as you panelized gerber file. If the panelize is not suit for fabrication, we may adjust the panelize method or ask you send the update gerber file to us again.
Elecrow help panelize	We will panelize the PCB with V-groove to separate the sub-PCBs. Because fabrication PCB as this will reduce the E-test time so that we can ship the PCB more fast to you. The lead time for small batch PCB fabrication is 6 to 9 days.

6. PCB Stencil

The following excel is the Effective Dimension for the Frame stencil.

Limitation on PCB size: (If need to open both side of the PCB, The PCB area should less than half of the effective dimension)

Frame Dimension	Effective Dimension
20cm X 20cm no frame	18.0cm x 18.0cm
20cm X 25cm no frame	18.0cm x 23.0cm
20cm X 30cm no frame	18.0cm x 28.0cm
28cm X 38cm no frame	19.0cm x 29.0cm
30.0cm x 40.0cm	13.0cm x 21.0cm
37.0cm x 47.0cm	19.0cm x 29.0cm
42.0cm x 52.0cm	24.0cm x 34.0cm
45.0cm x 55.0cm	27.0cm x 37.0cm
58.4cm x 58.4cm	40.0cm x 40.0cm
55.0cm x 65.0cm	37.0cm x 47.0cmm

For stencil without Frame, The Effective Dimension is a little less than your selected.

A. The Effective Dimension of stencil should be twice of the PCB dimension if both side of the PCB need to open stencil.

B. For 0201 components and some small pins IC, please choose the Electropolishing. Or the stencil may be unable to use.

For more details, please have a look at the stencil online page.

http://www.elecrow.com/laser-cut-pcb-stencil-p-450.html

Third, Select the gerber file and then Add To CART.

*Upload the Gerber file must be packed into RAR orZIP format.

File   File   Please don't forget to upload PCB file

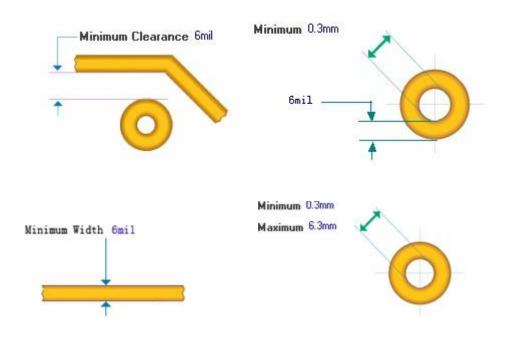Qty: 1   Unit(s)   **ADD TO CART**   Add to Wish List
     Submit a wholesale Inquiry
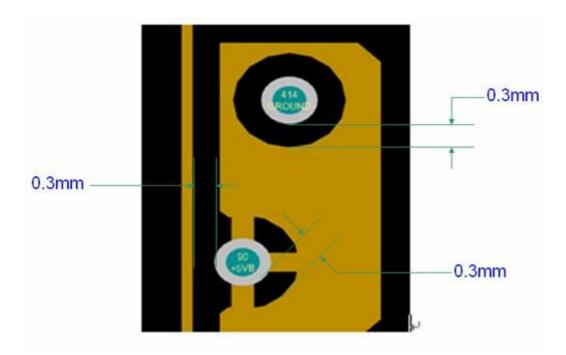
PCB specification

1. Characters on the silk screen layer.

The width of minimum characters is 0.15mm, minimum height of the characters is 0.8mm. The silk screen won't placed on the pads.

Designator [mm]
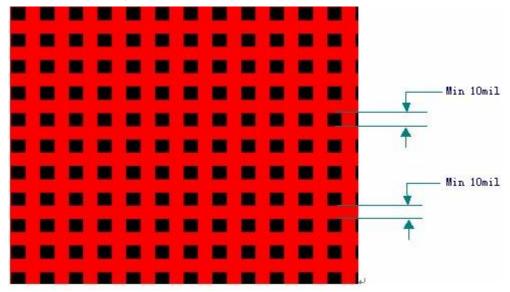
Width 0.15mm

Height 0.8mm

Designator

Rotation 0

2.The minimum vias size is 0.3mm(12mil), The minimum ring size (for soldering) is 0.15mm(6mil), the minimum width of trace is 6mil. The Maximum drill size is 6.3mm. If bigger than 6.3mm, it will be milled by mill cutter.
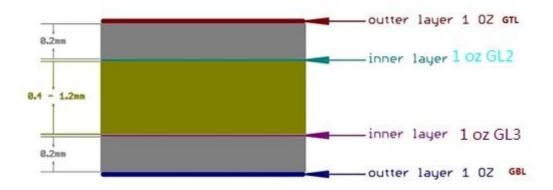
Minimum Clearance 6mil

Minimum 0.3mm

6mil

Minimum Width 6mil

Minimum 0.3mm

Maximum 6.3mm

3. The diameter of the cutter for PCB outline is 0.8mm, 1.0mm, 1.2mm, 1.5mm and 1.9mm. The PCB size tolerance from the middle of the outline is 0.12mm. The width of the outline less than 0.15mm is better.

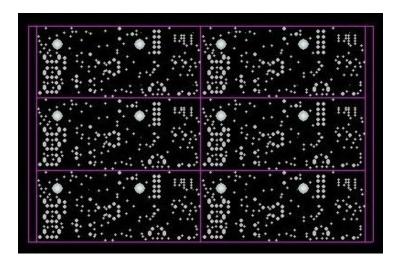4. The minimum distance between the inner copper and drill is 0.3mm

5. For grid copper, The minimum space and wire size is 10mil. A Whole copper is recommended to avoid some break problem.
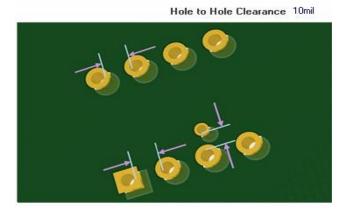
6. The thickness of all the copper layers is 1oz now.

7. V-cut

1) The outline of the two closed sub-boards is the one line.

2) There will be 1/3 thickness of the board doesn't cut by the mill cutter.

3) V-cut cutter can only run line.

4) The dimension of the panel should be larger than 8*8cm. If the panel is not suit for fabrication, we may change the panelize method or double the panel.

8. The minimum distance between the hole is 10mil to avoid the hole don't have copper.

Need to know more about Elecrow PCB fabrication, You can visit this wiki page

http://www.elecrow.com/wiki/index.php?title=Elecrow_Services

Order PCB online: http://www.elecrow.com/services-c-73.html

If the PCB parameter is not available online, You can also contact with service@elecrow.com for quotation.

If there is BGA on the PCB, Please contact with service@elecrow.com for inquiry. we will fabricate it with premium PCB service.   http://www.elecrow.com/premium-pcb-service-p-1061.html