

Proyecto Multicapa

Restricciones del fabricante.

Item	JLCPCB	NextPCB	PcbWay
Layer counts	1-6 layers	1-20 layers	1-10 layers
Material	FR-4	FR-4, Aluminum, Rogers, Copper	FR-4, Aluminum
Dielectric constant	4.5(double-side PCB)	4.2	4.0
Max. Dimension	400x500mm	1-2 layers: 500*600mm 4-20 layers: 400*500mm	500*1100mm (min 5*6mm)
Dimension tolerance	±0.2mm	CNC: ±0.15mm, V-CUT: ±0.2mm	0.2 mm
Thickness Tolerance (Thickness≥1.0mm)	± 10%	± 10%	± 10%
Thickness Tolerance (Thickness<1.0mm)	± 0.1mm	± 0.1mm	± 0.1mm
Drill Hole Size (Mechanical)	0.20mm- 6.30mm	0.15-6.5mm	0.20-6.5mm
Drill Hole Size Tolerance	+0.13/-0.08mm	≤0.05mm	≤0.05mm
Blind/Buried Vias	Don't support	≥ 20μm	≥ 25μm
Min. Via diameter	0.4mm	0.45mm	0.4mm
Hole size Tolerance (Plated)	+0.13mm/-0.08mm	±0.075mm	±0.10mm
Hole size Tolerance (Non-Plated)	±0.2mm	±0.05mm	±0.10mm
Rectangle Hole/Slot	Don't support	With or without fillet angle	
1oz Copper	0.13mm	3.5mil (single side) (3.5mil≈0.09mm)	0.15mm
2 oz Copper	0.2mm	4.5mil (single side) (4.5mil≈0.11mm)	0.20mm

Hole to hole clearance(Different nets)	0.5mm	$\geq 12\text{mil}$ (Avoid conductive anodic filament)($12\text{mil}\approx 0.30\text{mm}$)	0.40mm
Min. Hole size	0.2mm	0.2mm	0.2mm
Via to Via clearance(Same nets)	0.254mm	$\geq 8\text{mil}$ ($8\text{mil}\approx 0.20\text{mm}$)	0.254mm
Pad to Pad clearance(Pad without hole, Different nets)	0.5mm	$\geq 0.40\text{mm}$	0.50mm
SMD pad to SMD pad clearance(Pad without hole, different nets)	-	$\geq 0.15\text{mm}$	-
Via to Track	0.254mm	$\geq 7\text{mil}$ ($7\text{mil}\approx 0.18\text{mm}$)	-
PTH to Track	0.33mm	$\geq 9\text{mil}$ ($9\text{mil}\approx 0.23\text{mm}$)	-
NPTH to Track	0.254mm	$\geq 8\text{mil}$ ($8\text{mil}\approx 0.20\text{mm}$)	-
Pad to Track	0.2mm	$\geq 9\text{mil}$ ($9\text{mil}\approx 0.23\text{mm}$)	-
H/HOZ (Inner layer)	5mil (0.127mm)	2.5mil ($2.5\text{mil}\approx 0.06\text{mm}$)	0.127mm
1oz (Outer layer)	1/2 layers: 5mil (0.127mm) 4/6 layers: 3.5mil(0.09mm)	3mil ($3\text{mil}\approx 0.08\text{mm}$)	0.127mm
2oz (Outer layer)	8mil (0.2mm)	5.5mil ($5.5\text{mil}\approx 0.14\text{mm}$)	0.2mm
Solder mask opening/ expansion	0.5mm	$\geq 1.5\text{mil}$ ($1.5\text{mil}\approx 0.04\text{mm}$)	0.4mm
Solder bridge	0.2mm(green) 0.254mm(other colors)	Green: 3.5mil Black/White: 5mil other solder mask: 4mil	0.254mm(all colors)
Solder mask color	green, red, yellow, blue, white, and black.	Green/Red/Yellow/Blue/White/ Matte Black/Black	Green, Red, Yellow, Blue, White, Black
Solder mask dielectric constant	3.8	3.5	3.6
Solder mask thickness	10-15UM	Solder mask thickness on base material: 0.8mil, solder mask thickness on copper: 0.6mil	-
Minimum Line Width	6 mil (0.153mm)	Silkscreen printing $\geq 5\text{mil}$ ($5\text{mil}\approx 0.12\text{mm}$) Printer printing $\geq 3\text{mil}$ ($3\text{mil}\approx 0.08\text{mm}$)	-
Minimum text height	32 mil (0.8mm)	Silkscreen printing $\geq 30\text{mil}$ ($30\text{mil}\approx 0.76\text{mm}$)	-

		Printer printing $\geq 24\text{mil}$ ($24\text{mil} \approx 0.61\text{mm}$)	
Character width to height ratio	1:6	$\geq 6:1$	1:7
Pad To Silkscreen	0.15mm	$>6\text{mil}$ ($6\text{mil} \approx 0.15\text{mm}$)	0.20mm
Trace to Outline	0.2mm	0.2mm	0.20mm
Trace to V-cut line	0.4mm	0.4mm	0.40mm

SE UTILIZARON LAS REGLAS DEL FABRICANTE “NextPCB”

CALCULADORA DE ANCHO DE TRAZA DE PCB ANSI							
Datos de entrada			Datos de resultados				
						Rastros externos	
Campo	Valor	Unidades	Datos de seguimiento	Valor	Unidades	Valor	Unidades
Corriente (máx. 35 A)	0.5	Amperios ▼	Ancho de trazo requerido	12.13	mil ▼	4.66	mil ▼
Aumento de temperatura (máx. 100 ° C)	10	° C ▼	Área de sección transversal	16.3	mil ² ▼	6.26	mil ² ▼
Espesor de Cu	1	oz / ft ² ▼	Resistencia	0.13	Ohmios	0.34	Ohmios
Temperatura ambiente	25	° C ▼	Caída de voltaje	0.07	Voltios	0.17	Voltios
Longitud del conductor	3	pulgadas ▼	Pérdida	0.03	Vatios	0.09	Vatios
Voltaje pico	5	Voltios	Espacio de vía requerido	24	mil ▼		

Cálculo de ancho de los tracks para el PCB.

Cotizaciones:

Next PCB:

Fabricación

PCB Price

Build Time	Qty	Total
<input checked="" type="radio"/> 6 days	100	\$244.17
<input type="radio"/> ⚡ 96 hours	100	\$324.17

Area: 0.3353 m²

Weight: 1.1735 kg

Shipping Cost

UNITED STATES OF AMERICA

DHL

☒ 3-5 days,Weight:1.1735 kg

\$ 38.51

CHN Time Zone(GMT+8): 2021-05-31 03:27:00

Payment after the day of ordering 18:00 (GMT+8)

Delivery time

2021/06/06 PM

Receipt confirm

2021/06/11 PM

PCB Cost

\$244.17

Shipping Cost

\$38.51

All Total

\$282.68

Material:

FR-4

Aluminum

Rogers

HDI (Buried Blind Via)

Copper

Layer Count:

1 Layer

2 Layers

4 Layers

6 Layers

8 Layers

10 Layers

12 Layers

14 Layers

16 Layers

18 Layers

20 Layers

IG:

TO110

TO18

TO170

Board Type:

Single piece

Panel by Customer

Panel by NextPCB

Size:

50.8

x

66.0

mm

inch

mm

Breakaway Rail:

N/A

Quantity (single):

100

pcs

PCH Thickness:

0.8

0.8

1.0

1.2

1.6

2.0

2.5

3.0

3.2

Solder Mask Color:

Green

Red

Yellow

Blue

Silkscreen:

White

Black

Finished Copper Weight:

1oz

2oz

3oz

4oz

5oz

6oz

Inner Copper Weight:

0.5oz

1oz

2oz

3oz

4oz

Min. Trace / Space Outer:

6-mil

5-mil

4-mil

3.5/3.5mil

Min. Drilled Hole:

0.3mm

0.25mm

0.2mm

0.15mm

Via Process:

Through Via

Via Not Covered

Aluminium Via Plug

Replxy Via Plug

Surface Finish:

HASL

Lead Free HASL

ENIG

OSP

Beveling of GFR:

YES

NO

Electrical Test:

Sample Test Free

Confirm Working Gerber:

Don't need

Need

Plated Half-Drill/Plated Through Hole:

YES

NO

Impedance:

YES

NO

Microsection Analysis Report:

YES

NO

Ensamble:

PCB Assembly

Three Options:


Turnkey
We supply the parts


Kitted or Consigned
You supply parts


Combo
You supply some parts we do the rest

Please complete the data to get an instant PCB assembly quote.

* PCB Quantity: pcs

* The Number of Components: 

Quantity of Pads: 

Quantity of Through Hole: 

PCB Dimension: mm × mm

X-ray Testing Quantity: ☒ YES ☐ NO

Assembly Side(s): ☒ Single Side ☐ Double Side

Board Breakout: ☒ YES ☐ NO

Conformal Coating: ☐ YES ☒ NO

Package: ☐ Normal ☒ Anti-static Bag

Assembly Service Price

Build Time	Qty	Total
<input checked="" type="radio"/> 3-5 days	100	\$368.64

Weight: 0.5868 kg

Shipping Cost

 UNITED STATES OF AMERICA ▼

DHL ▼

  3-5 days, Weight: 0.5868 kg **\$ 31.03**

CHN Time Zone(GMT+8): 2021-05-31 03:43:17

Payment after the day of ordering 18:00 (GMT+8)

 Delivery time 2021/06/05 PM		 Receipt confirm 2021/06/10 PM
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Assembly Service Cost	\$368.64
Shipping Cost	\$31.03
All Total	\$399.67

PCB way:

Fabricación

Pricing And Build Time

PCB Price

Price Comparison Matrix

Build Time	Qty	Total
✓ 8-9 days	100	\$ 249

Final price is subject to our review.
The order has been surging recently. Our delivery date may delay 1-2 days. Bulk orders may delay 2-3days.
Good news is that our new factory's production lines are in the testing phase and will be officially put into production in June.

Shipping Cost:

UNITED STATES OF AMERICA

DHL

3-7 Days , wt : 1.174 kg

\$38

CHN Time Zone(GMT+8): 2021/5/31 3:45:59

Payment before 2021/05/31 06:00 (GMT+8 Only PCB)

Shipment Date
2021/6/8 AM

Delivery Date
2021/6/13

PCB Cost: US \$ 249

Shipping: US \$ 38

Total: US \$ 287

Save to Cart

Board type: Single pieces Panel by Customer Panel by PCBWay

Different Design in Panel: 1 2 3 4 5 6 0.9

* Size (single): 50.8 X 66 mm inch→mm

* Quantity (single): 100 pcs

Layers: 1 Layer 2 Layers 4 Layers 6 Layers 8 Layers 10 Layers 12 Layers 14 Layers

Material: FR-4 Aluminum Rogers HDI (Buried/blind vias) 3+1 Layers Copper Base

FR4-TG: TG 130-140 TG 150-160 TG 170-180

Thickness: 0.2 0.4 0.6 0.8 1.0 1.2 1.6 2.0 2.4 2.6 2.8 3.0 3.2

Min Track/Spacing: 3/3mil 4/4mil 5/5mil 6/6mil 8/8mil

Min Hole Size: 0.15mm 0.2mm 0.25mm 0.3mm 0.8mm 1.0mm No Drill

Solder Mask: Green Red Yellow Blue White Black Purple Matte black Matte green None

Silkscreen: White Black None

Edge connector: Yes No

Surface Finish: HASL with lead HASL lead free Immersion gold(ENIG) OSP Hard gold Immersion silver(Ag)


Via Process: Tented vias Plugged vias Vias not covered

Finished Copper: Bare board(0 oz Cu) 1 oz Cu 2 oz Cu 3 oz Cu 4 oz Cu 5 oz Cu 6 oz Cu 7 oz Cu

Inner Copper: 1 oz 1.5 oz 2 oz 3 oz 4 oz 5 oz 6 oz

Extra pcb product number: Not to add extra pcb product number on board (extra+\$3)

Ensamble


Assembly Service

3 flexible options:
☒
Turnkey
PCBWay supply parts
☐
Kitted or Consigned
Customer supply parts
☐
Combo
You supply some parts
we do the rest

Board type:

Single pieces

Assembly Side(s):

Top side

We suggest choose to do panel if single PCB qty is more than 20pcs or any side of single board is smaller than 50mm.

Quantity:

100

pcs

Stencil

Yes

Please fill in total quantity of single PCBs.







Pay attention:

☐ No
☒ Yes

The following components need to be paid attention to during the assembly process:
Mfg Part No., welding temperature
Mfg Part No., it is forbidden to use plate washer water to avoid corrosion

Number of Unique Parts:

95









Example no. of Unique Parts: 6 kinds

Fill in to get the exact price, or leave it blank to wait for final quote.

Number of SMT Parts:



92



Fill in to get the exact price, or leave it blank to wait for final quote.

Number of BGA/QFP Parts:



3

Fill in to get the exact price, or leave it blank to wait for final quote.

Number of Through-Hole Parts:

3

Fill in to get the exact price, or leave it blank to wait for final quote.





Pricing And Build Time

Assembly Service Price

	Per Piece	Qty	Total
<input checked="" type="radio"/>	8.8/pcs	100	\$ 881
<input type="radio"/>	5.4/pcs	200	\$ 1072
<input type="radio"/>	3.0/pcs	500	\$ 1515
<input type="radio"/>	2.1/pcs	1000	\$ 2143

Final price is subject to our review.
The order has been surging recently. Our delivery date may delay 1-2 days. Bulk orders may delay 2-3days.
Good news is that our new factory's production lines are in the testing phase and will be officially put into production in June.

Shipping Cost:

 UNITED STATES OF AMERICA ▲
  DHL ▼
 
 3-7 Days, wt: 0.500 kg
 \$25

Assembly Service Cost:	US \$ 881
Shipping:	US \$ 25
Order discount:	US \$ -25
Total:	US \$ 881



Save to Cart

- En JLCPCB no es posible fabricar ya que no pueden fabricar PCB con vías enterradas.