



## ECET 230 - Ordering instructions

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# PCB Specification Selection

- Board type: Single pieces
  - Single pieces are ideal for prototypes or small runs. This allows faster turnaround and reduces costs compared to a panelized order.
- Different design in panel: 1
  - There is only 1 PCB design being ordered
- Size: 182mm by 142mm
- Quantity: 5 pcs
  - A small batch is sufficient for testing and debugging.
- Layers: 2 Layers
  - The design of the PCB calls for 2 layers
- Material: FR-4
  - FR-4 is the standard PCB material, offering good mechanical stability, thermal resistance, and electrical insulation
- FR4-TG: TG 150-160
  - TG 150-160 gives a slightly higher glass transition temperature than the base FR-4, improving thermal stability during soldering and operation.
- Thickness: 1.6mm
  - 1.6 mm is the standard PCB thickness, providing good rigidity and compatibility with most enclosures and mounting hardware.
- Min track/spacing: 6/6mil
  - 6/6mil meets the minimum design requirement of 0.15 mm for both track width and spacing, ensuring manufacturability while maintaining a safe margin above the limit.
- Min hole size: 0.3mm
- Solder mask: Green
- Silkscreen: Black
  - Black silkscreen is highly visible on a green mask, making component labels and markings easy to read.
- UV printing Multi-color: None
- Edge connector: No
- Surface finish: HASL with lead
  - HASL with lead is reliable, inexpensive, and compatible with through-hole and SMT components.
- Via process: Tenting vias
- Finish copper: 1 oz Cu
  - 1 oz copper is standard, balancing current-carrying capacity and cost.

# PCB Way Order

The following website was used to generate the ordering Instructions:

<https://www.pcbway.com/orderonline.aspx>

Board type :  Single pieces  Panel by Customer  Panel by Supplier

Different design in panel :  1  2  3  4  5  6  e.g.

\* Size (single):  182 X 142.0 mm inch'↔mm

\* Quantity (single):  5 pcs

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

Material:  FR-4  Aluminum  Rogers  HD(Buried/blind vias)  Copper Base

\*Material model can be remarked below. HDI is available for 4-layer or more.

FR4-TG:  TG 130-140  TG 150-160  TG 170-180  S1000H TG150  S1000-2M TG170

\*The base material of 2-layer PCBs is automatically upgraded to S1000H TG150 for FREE with more stable and higher quality.

Thickness:  0.2  0.3  0.4  0.6  0.8  1.0  1.2  1.6  2.0  2.4  2.6  2.8  3.0  3.2  
 ≥1.7-8.0 \* Unit: mm

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  Yellow  None

UV printing Multi-color:  None  Single-sided: Top  Single-sided: Bottom  Double-sided

\*The uploaded PCB file should contain color renderings, [learn more >>](#)

Edge connector:  Yes  No

Surface finish:  HASL with lead  HASL lead free  Immersion gold(ENIG)  OSP  Hard gold  Immersion silver(Ag)  
 Immersion tin  HASL lead free + Selective Immersion gold  HASL lead free + Selective Hard gold  
 Immersion gold + Selective Hard gold  ENEPIG  None/Plain copper

Via process:  Tenting vias  Plugged vias with solder mask  Vias not covered

\*For Gerber files this choice will not affect anything, PCB will be made using the parameters of the files.

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  
 8 oz Cu  9 oz Cu  10 oz Cu  11 oz Cu  12 oz Cu  13 oz Cu

\*Requirement of Min Track/Spacing: ≥ 3/3mil for sample orders, or ≥ 3.5/3.5mil for bulk orders.

Remove product No.  No  Yes (extra+\$ 1.5)  Specify a location

**Pricing And Build Time**

PCB Price		Price Comparison Matrix	
Build Time	Qty	Total	
<input checked="" type="checkbox"/> 3-4 days	5	\$74.50	
<input type="checkbox"/> Express 48hours	5	\$97.80	
<input type="checkbox"/> Express 24hours	5	\$122.67	

\*Final price is subject to our review.

Shipping Cost: \$24.15

UNITED STATES OF AMERI... DHL DHL

DHL 2-4 business days, wt:0.45kg

Shipment Date: 2025/12/14 AM Delivery Date: 2025/12/17

PCB Cost: \$74.50 Shipping: \$24.15 Total: \$98.65

Notice: Customs duties and VAT are not included!

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