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2 Layer Prototype Service

Our famous 2 layer purple prototype production.

Pricing

\$5 per square inch, which includes three copies of your design. For example, a 2 square inch board would cost \$10 and you'd get three copies of your board. You can order as many copies as you want, as long as they're in multiples of three.

Turn Times

Orders are sent to fabrication daily, and will ship within 10-12 days.

You can get a quote, approve a design, and pay for an order at [OSH Park](#).

For a faster turn time, you may be interested in our [Super Swift Service](#).

For thinner, lighter, or high current boards, you may be interested in our [2oz-0.8mm Service](#).

Need more than 150 square inches of boards? Our [2 Layer Medium Run Service](#) is a less expensive option for larger orders.

Fabrication Specs

2 Layer PCB Specs

Quick Specs

- 6 mil minimum trace width
- 6 mil minimum trace spacing
- 13 mil minimum drill
- 7 mil annular ring
- PCB thickness of 1.6mm (.063")
- 1oz copper on both sides (1.4mil, 35um)

Detailed Specs

- ENIG (gold) finish for superior soldering and environmental resistance.
- Solder resist and silkscreen on both sides.
- Minimum 15 mil keepout distance from traces to the board edge.
- PCB substrate is FR4.
- PCB substrate is compatible with a lead-free process.
- The boards themselves are also lead free and RoHS compliant.
- PCB Substrate dielectric constant of 4.6 at 1MHz.
- Minimum 4 mil soldermask web.
- Maximum soldermask expansion, retraction, or shift is 3mil.
- Minimum 100 mil width on internal cutouts. See our [Slots](#) page for further information.
- Manufactured in the United States.
- Castellations are allowed, but not officially supported.
- Non-plated slots wider than 100 mil are not officially supported.
- Plated slots and smaller slots are possible, but not officially supported. See our [Slots](#) page for more.

2 Layer Stackup

Thickness	Layer	Tolerance
1mil	solder resist	+/-0.2mil
1.4 mil	1 oz copper	
60 mil	core	+/-6mil
1.4 mil	1 oz copper	
1mil	solder resist	+/-0.2mil

-  [IS 410 compatible FR4 \(S1141 170\) Datasheet.pdf](#)

2 layer Drill Specs

- Minimum 13 mil drills with 7 mil annular rings.
- Maximum plated hole size is 265 mils. Unplated holes do not have a maximum size.

Designed and developed by [Resistor](#).