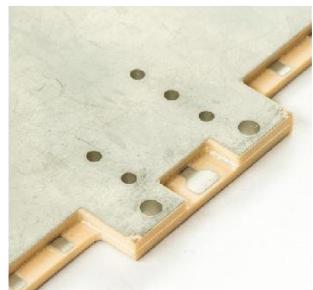
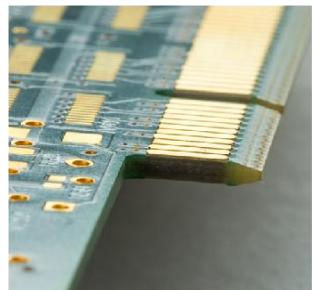
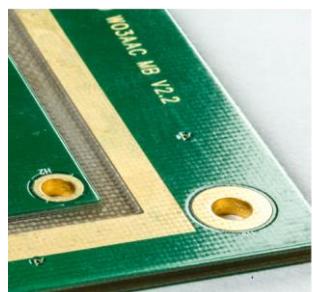


ELLWEST PCB GmbH, Vienna, Austria



Printed Circuit Board (PCB) Program:

- HDI and all High-End Design challenges are our strong side;
- PCB design (incl. Gerber Data) and electronic circuit simulation service;
- Before a first production our experts will do a design check of your PCB Data;
- 20 years experience and long term production partners in China, Taiwan and Korea;
- Our own office for quality control in Shenzhen, China. Any produced PCBs and PCBAs undergo our own quality control, additionally to manufacturer's inspection;
- We are ISO 9001:2015 certified, TÜV Reg. No.: TIC 15 100 1810113;
- Our customers have possibility of direct communication with our quality control office, including video conference;
- Order quantity one piece up to large quantity mass production (samples and small quantities also in quick production service);
- As an Austrian company we take the responsibility for quality and on time delivery. We have suitable logistic arrangements (air cargo, UPS, DHL, EMS) to deliver up to your place, including (if not agreed otherwise) the import customs clearance to E.U.



We also offer:

- Metal-based PCBs with high thermal conductive Prepregs: thermal conductivity up to 12 W/m*K;
- Flexible and rigid-flex boards up to 6L flex and up to 16L rigid.

Our Products Program: up to 40 Layer Multilayer Rigid PCBs

Parameter	Description
Base Materials (ROHS compatible)	FR1, FR2, CEM1, CEM3, FR4, high Tg FR-4, high CTI FR-4, anti CAF FR-4, FR-4 halogen free, Teflon & ceramic HF materials (Rogers, Isola, Taconic, Arlon, Shengyi, TUC, Wangling), Polyimide for flex and rigid-flex (DuPont, Panasonic, ThinFlex)
Max. board size	480 x 780 mm, special: 610 x 1.200 mm (rigid), 406 x 737 mm (flex)
Min. board thickness	Core: 0.025 mm; one/two layers: 0.10 mm; multilayer: 0.20 mm
Max. board thickness	3.20 mm, special: 12.00 mm (rigid), 4.0 mm (rigid-flex)
Copper thicknesses	Base copper thickness: 9, 12, 18, 35, 70, 105 µm (higher up to 420 µm finished possible, also to achieve by plating)
Min. drill / via	0.15 (special 0.075) mm mechanical, aspect ratio 8:1 (special 20:1), by laser 0.10/0.15 mm
Min. track width/space	75 / 75 µm (special: 50/50 µm; inner layers: 50/38 µm)
Impedance control	Standard tolerance $\pm 10\%$, advanced down to $\pm 5\%$. Test Coupon
Outline	Routing, scoring, punching (± 0.05 mm tolerance)
Surface finish	OSP, HASL SnPb, lead free HASL (ROHS), immersion Nickel / Gold (ENIG), galvanic Nickel / hard Gold, bondable soft Gold, ENEPIG, immersion Tin, immersion Silver, Carbon Print
Solder mask	Liquid Photoimageable Mask, peelable Mask, Dry Film Mask. Mask colours: green, white, black, blue, red, yellow and violet (all: matt or glossy).
Notation print	In white, black or yellow colour
Holes plating & annular ring	Min. Average 20/25 µm copper (IPC-A-600H Class 2/3) or more, min. annular ring width as per IPC-A-600H Class 3
Further details	IPC-A-600H class 2 or 3, Fixture or Flying Probe E-test, AOI for all layers of multilayer boards. HDI Design, Via plugging by mask, filling with resin (also thermal or electric conductive). Half hole – edge plating, blind & buried VIAs and stacked VIAs, Laser Micro VIAs, Via-in-Pad Technology, asymmetric stack-up, hybrid stack-up (e.g. FR-4 + Rogers), cross section Sample or Photo