

## PCB technical parameters

	PROTOTYPING	PRODUCTION
<b>SPECIFICATION</b>		
Rigid circuit boards	1	up to 48 layers
Flexible circuit boards	Yes	+
Rigid-Flex circuit boards	Yes	+
Metal core circuit boards	Yes	+
High frequency circuit boards	Yes	+
High Tg circuit boards	Yes	+
Thick copper circuit boards	Yes	+
<b>OPTIONS</b>		
Conductor width / spacing min.	100 µm	70 µm
Vias min. Ø	200 µm	75 µm
Via pads min. Ø	400 µm	225 µm
Via annular rings min.	100 µm	75 µm
Component annular rings min.	200 µm	200 µm
Blind vias min. Ø	50 µm	50 µm
Buried vias min. Ø	150 µm	150 µm
Press fit technology	yes	+
Custom layer buildup	yes	+
Sideplating	yes	+
Half-holes	yes	+
Tented vias	yes	+
Plugged vias	yes	+
Filled vias	yes	+
Filled & capped vias	yes	+
Copper outer layers max.	105 µm	450 µm
Copper inner layers max.	70 µm	105 µm
Min. thickness	0.5 mm	0.3 mm
Max. thickness	3.2 mm	7.0 mm
Max. size 1 or 2 layers	10 dm <sup>2</sup>	600 mm × 1,100 mm
Max. size multilayer	10 dm <sup>2</sup>	590 mm × 1,000 mm
Max. size Rigid-Flex	-	560 × 400 mm
Circuit board min. size	15 × 15 mm	10 × 10 mm

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**ZebraPCB**



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<b>SURFACES</b>		
Lead-free HAL	yes	+
Lead/tin HAL	yes	+
Copper (blank)	yes	+
Immersion tin	yes	+
Immersion silver	yes	+
Immersion gold (ENIG)	yes	+
Bonded gold, gold wire	yes	+
Bonded gold / aluminium wire	yes	+
ENEPIG	yes	+
Gold-fingers	yes	+
Solder-stop green	yes	+
Solder-stop clearance min.	75 µm	50 µm
Solder-stop bridge min.	100 µm	100 µm
Solder-stop white	yes	+
Solder-stop red	yes	+
Solder-stop blue	yes	+
Solder-stop black	yes	+
Solder-stop coloured clearance min.	75 µm	75 µm
Solder-stop coloured bridge min.	150 µm	150 µm
Marking print white	yes	+
Marking print yellow	yes	+
Marking print black	yes	+
Carbon print	Yes	+

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<b>MECHANICAL</b>		
Milling min. Ø	2 mm	0.8 mm
Milling special shapes	yes	+
Inner milling	yes	+
Z-axis milling	yes	+
Scoring	yes	+
<b>MATERIALS</b>		
FR4 Tg 135°C	yes	+
FR4 HTg 180°C	yes	+
FR4 KF (CTI 400)	yes	+
Rogers 4350B	yes	+
G200	yes	+
P97	yes	+
PTFE (Teflon)	yes	+
Polyimide	yes	+
Metal core 1 layer	yes	+
Metal core 2 layers	yes	+
<b>QUALITY CONTROLS</b>		
E-Test	yes	+
A.O.I.	yes	+
X-ray	yes	+
Microsection ( <i>On request</i> )	yes	
Impedance control ( <i>Precision up to 5% for 50 Ohms</i> )	yes	+
UL compliance ( <i>UL Certificate</i> )	yes	+

\* All other specification can be verified during ordering process