

# Eleprint Capability

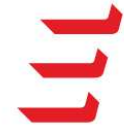
Mod Ep 131

# PRINTED CIRCUIT BOARDS PRODUCTION CAPABILITY



ELEPRINT 2019		
	PRODUCTION	PROTOTYPES
<b>INNER LAYER</b>		
Tracks	65µm	50µm
Insulation	65µm	50µm
<b>OUTER LAYER</b>		
Tracks	75µm	65µm
Insulation	75µm	65µm
<b>LASER VIA PADS</b>		
External	250µm	230µm
Internal	250µm	230µm
<b>MECHANICAL VIA PADS</b>		
External	450µm	400µm
Internal	500µm	450µm
<b>ASPECT RATIO</b>		
	1:11	1:12
<b>SOLDER GAP</b>		
	43	38

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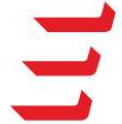
Board thickness	
Minimum	0,10 mm
Maximum	6 mm
Inner layer laminate thickness	
Minimum	0,05 mm
Maximum	2,40 mm
Prepreg thickness	
Type 7628 FR4 -	0,190 mm
Type 106 FR4	0,055 mm
Type 1080 FR4 -	0,075 mm
Type 2116 FR4 -	0,115 mm
Copper thickness	
9µm (1/4 oz)	On request only. UL certified.
12µm (1/3 oz)	YES
17µm (1/2 oz)	YES
35µm (1 oz)	YES
50µm	YES
70µm	YES
105µm	YES
> 105µm	On request only. UL certified.

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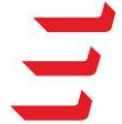
Hole copper plating (nominal copper thickness)	
Via hole minimum Aspect Ratio 12:1	25µm
Blind via hole Aspect Ratio 1:1	50µm
Maximum Aspect Ratio	
Laminate thickness : Hole diameter	Aspect Ratio 12:1 for PTH Via Hole
	Aspect Ratio 1:1 for Laser Via Hole
Surface Treatment	
Hot Air Leveling	1-30µm
Electroless Nickel/Gold	Nickel 3-6µm standard Gold 0,05-0,07µm standard
Immersion Tin	1µm typically
Hard Gold	Nickel 4µm minimum Gold 0,8 ÷ 1,2µm
Immersion Silver	0,2-0,5µm
Routing	
Minimum distance routing to pattern	Inner layers 400µm Outer layers 200µm



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Minimum pad diameter	
Inner layers	Ø hole + 250µm
Outer layers	Ø hole + 200µm
Minimum finished hole diameter	
Mechanical drilled	≥ 150µm
Laser drilled	0,1 ÷ 0,35µm
Tolerances	
PTH holes	- 50µm ± +100µm
No PTH holes	± 50µm
Routing	± 100µm

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Scoring	
Minimum positioning tolerance	100µm
Angle	30°
Tolerance to routing	+225µm - 200µm
Contour tolerance	+150µm - 100µm
PCB tolerance, 2 scored edges after separation	+200µm - 100µm
Minimum distance nominal centerline to pattern/holes	500µm
Marking	
Week Code	2 digits for weeks 2 digits for year (Prototype: WW-YY)
UL Marking	UL Flammability code
Manufacturer Identification	<div style="border: 1px solid black; padding: 2px;">•ZPMV8.E135333</div> <div style="border: 1px solid black; padding: 2px;">•ZPMV2.E135333</div>
Marking Sequence (Eleprint manufacturer identification, PCB Type, UL logo and Flame Class according UL 94.	<p>Example:</p> <div style="display: flex; align-items: center; gap: 10px;">  <span>ENLF</span> <span>US</span>  <span>C</span> </div>