Eleprint Capability & Design rules

PRINTED CIRCUIT BOARDS
PRODUCTION CAPABILITY

ELEPRINT 2022		
	PRODUCTION	**PROTOTYPE**
INNER LAYER		
Tracks	65µm	40µm
Insulation	65µm	40µm
OUTER LAYER		
Tracks	75µm	65µm
Insulation	75µm	65µm
LASER VIA PADS		
External	250µm	230µm
Internal	250µm	230µm
MECHANICAL VIA PADS		
	450µm	400µm
	500µm	450µm
ASPECT RATIO		
	1:11	1:12
SOLDER GAP		
	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	
9 µm (1/4 oz)	On request only UL certified
12 µm (1/3 oz)	YES
17 µm (1/2 oz)	YES
35 µm (1 oz)	YES
50 µm	YES
70 µm	YES
105 µm	YES
> 105 µm	On request only UL certified

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Hole copper plating (nominal copper thickness)	
Via hole	25 µm
Blind via holes	15 µm

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 levelling	1-30 µm
Electroless nickel/gold	Nickel 3-6 µm Gold 0,05-0,07 µm
Immersion tin	1 µm typically
Hard gold	Nickel 4 µm minimum Gold 0,8-1,2µm
Immersion silver	0,2-0,5 µm

Routing	
minimum distance routing to pattern	Inner layers 400 µm Outers layers 200 µm

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Minimum pad diameter	
Inner layers	Ø hole + 250 µm
Outers layers	Ø hole + 200 µm

Minimum finished hole diameter	
Mechanical drilled	> 150 µm
Laser drilled	0,1 ÷ 0,35 µm

Tolerances	
PTH holes	- 50µm ± +100µm
no PTH holes	± 50µm
Routing	± 100µm

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Scoring	
Minimum positioning tolerance	100 µm
Angle	30°
Tolerance to routing	+225 µm 200 µm
Contour tolerance	+150µm 100µm
PCB tolerance, 2 scored edges after separation	+ 200µm - 100 µm
Minimum distance nominal centerline to pattern/holes	500 µm

Marking	
Week Code	2 digits for weeks 2 digits for year (Prototype: WW-YY)
UL Marking	UL Flammability code
Manufacturer Identification	ZPMV8.E135333 ZPMV2.E135333
Marking Sequence (Eleprint manufacturer identification, PCB Type, UL logo)	Example: 

Contatti

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