

PCB SPECIFICATIONS :

A. MATERIAL :

FR-4

☐ TG-170

☒ TG-150

☐ TG-140

B. MATERIAL FAMILY :

N/A

C. SOLDERMASK COLOR :

☐ GREEN

☒ WHITE

☐ RED

☐ BLACK

D. SILKSCREEN COLOR :

☐ WHITE

☐ YELLOW

☐ BLACK

☒ Blue ink PANTONE 2955

E. SURFACE FINISH :

☒ ENIG

☐ IMMERSION SILVER

☐ IMMERSION TIN

☐ HASL

☐ HASL (PB-FREE)

☐ GOLDEN FINGER

F. IMPEDANCE CONTROL :

☐ NO

☒ YES (SEE IMPEDANCE TABLE FOR DETAIL INFORMATION)

G. THROUGH VIA :

PLUG THE VIAS WHICH ARE COVERED WITH SOLDERMASK ONE OR TWO SIDE.
PLUG MATERIAL : ☒ SOLDERMASK ☐ NON-CONDUCTIVE EPOXY.

H. STACK-UP :

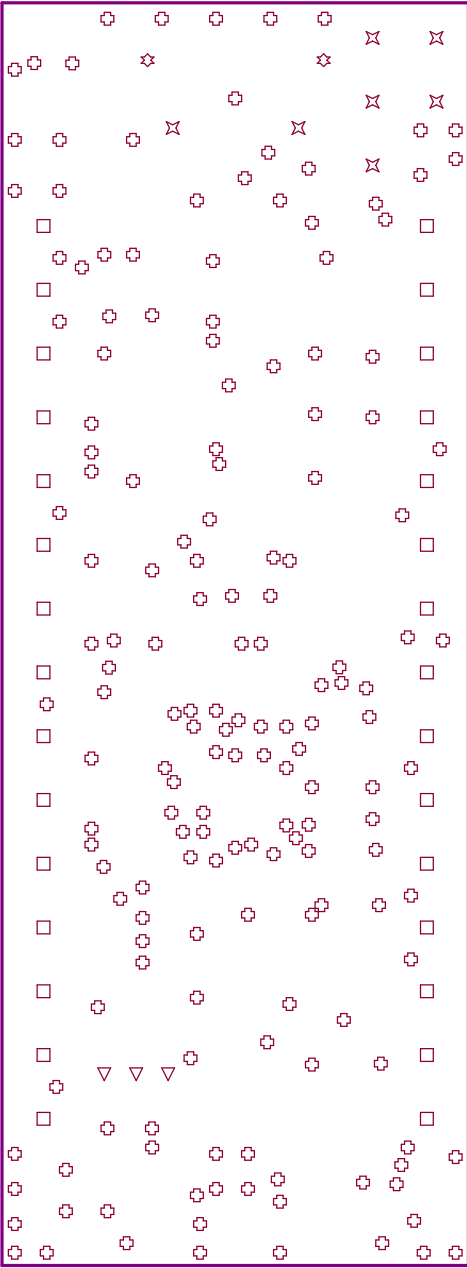
SEE LAYER STACK-UP SEQUENCE FOR OVERALL THICKNESS.

PCB : TYPE 3

ASPECT-RATIO, AXE Z :
6:1 to 8:1
LEVEL "B"

MINIMUM PARAMETERS

DEFAULT
TRACKS : 0.127mm
GAPS : 0.127mm



Layer	Name	Material	Thickness	Constant	Board Layer Stack
	Top Overlay				
	Top Solder	Solder Resist	0,010mm	3,5	
1	Top Layer	Copper	0,036mm		
	Dielectric 1	FR-4	0,320mm	4,8	
2	Signal Layer 1	Copper	0,036mm		
	Dielectric 3	FR-4	0,320mm	4,8	
3	Signal Layer 2	Copper	0,036mm		
	Dielectric 2	FR-4	0,320mm	4,8	
4	Bottom Layer	Copper	0,036mm		
	Bottom Solder	Solder Resist	0,010mm	3,5	
	Bottom Overlay				

IMPEDANCE TABLE USB HS STLINK					
LAYER	TRACE (mm)	SPACING (mm)	IMPEDANCE (Single ended)	IMPEDANCE (Differential)	TOL.
TOP	0.155	0.226	n/a	90 ohm	+/- 15%
LAYER 1	0.130	0.251	n/a	90 ohm	+/- 15%

Symbol	Count	Hole Size	Plated	Hole Type	Drill Layer Pair	Via/Pad	Pad Shape	Template	Description	Hole Tolerance (+)	Hole Tolerance (-)	Hole Length	Routed Path Length
✳	2	23,62mil (0,60mm)	PTH	Slot	Top Layer - Bottom Layer	Pad	Rounded	r190_120h60_130r100m195_125				51,18mil (1,30mm)	27,56mil (0,70mm)
▽	3	27,56mil (0,70mm)	PTH	Round	Top Layer - Bottom Layer	Pad	(Mixed)	(Mixed)				-	-
✳	7	35,43mil (0,90mm)	PTH	Round	Top Layer - Bottom Layer	Pad	(Mixed)	(Mixed)				-	-
□	30	43,31mil (1,10mm)	PTH	Round	Top Layer - Bottom Layer	Pad	Rounded	(Mixed)				-	-
⊕	169	8,00mil (0,20mm)	PTH	Round	Top Layer - Bottom Layer	Via	Rounded	v41h20m0mx0				-	-
	211 Total												

Slot definitions : Routed Path Length = Calculated from tool start centre position to tool end centre position.
Hole Length = Routed Path Length + Tool Size = Slot length as defined in the PCB layout