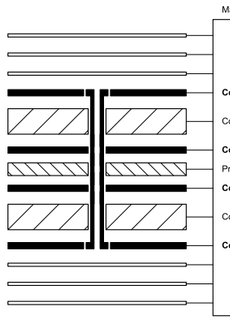
Watch-DevKit-HW Fabrication Document

Layer Stack Legend



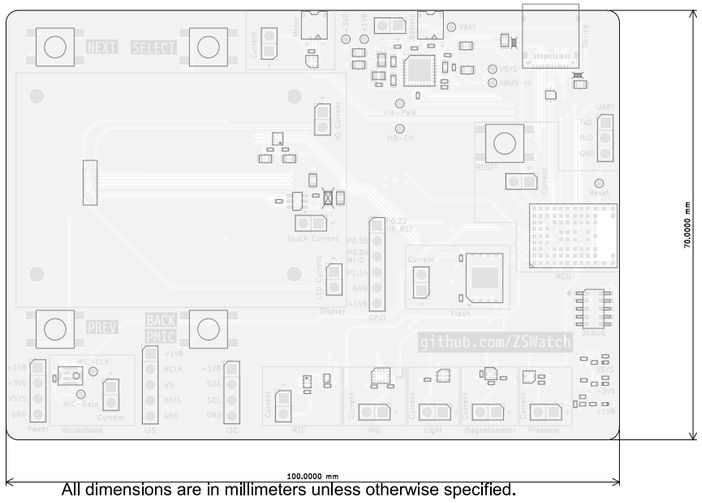
Material	Layer	Thickness	Dielectric	Type	Gerber
	F.Paste			Paste Mask	
	F.Silkscreen			Legend	GBR
	F.Mask	0.01mm		Solder Mask	GBR
Copper	**F.Cu**	**0.035mm (1oz)**		**Signal**	**GBR**
Core		0.1855mm	FR4	Dielectric	
Copper	**Inner1 (GND)**	**0.035mm (1oz)**		**Plane**	**GBR**
Prepreg		1.03mm	FR4	Dielectric	
Copper	**Inner2**	**0.035mm (1oz)**		**Plane**	**GBR**
Core		0.1855mm	FR4	Dielectric	
Copper	**B.Cu**	**0.035mm (1oz)**		**Signal**	**GBR**
	B.Mask	0.01mm		Solder Mask	GBR
	B.Silkscreen			Legend	GBR
	B.Paste			Paste Mask	

Total thickness: 1.561mm
Note: external layer thicknesses are specified after plating

Impedance Table

Transmission Line	Impedance [ohms]	Tolerance [%]	Layer	Trace Width [mm]	Gap [mm]	Ref. Layers

Top Fabrication (Scale 1:1)



All dimensions are in millimeters unless otherwise specified.

FABRICATION NOTES (UNLESS OTHERWISE SPECIFIED)

1) FABRICATE PER IPC-6012A CLASS 2.
2) OUTLINE DEFINED IN SEPARATE GERBER FILE WITH "Edge_Cuts.GBR" SUFFIX.

   DIMENSIONS OF CIRCUMSIZED RECTANGLE SHOWN ON THIS DRAWING FOR REFERENCE ONLY.
3) SEE SEPARATE DRILL FILES WITH ".DRL" SUFFIX FOR HOLE LOCATIONS.

   SELECTED HOLE LOCATIONS SHOWN ON THIS DRAWING FOR REFERENCE ONLY.
4) SURFACE FINISH: HAL SNPB
5) SOLDERMASK ON BOTH SIDES OF THE BOARD SHALL BE LPI, COLOR WHITE.
6) SILK SCREEN LEGEND TO BE APPLIED PER LAYER STACKUP USING BLACK NON-CONDUCTIVE EPOXY INK.
7) ALL VIAS ARE TENTED ON BOTH SIDES UNLESS SOLDERMASK OPENED IN GERBER.
8) VENDOR SHOULD FOLLOW ROHS COMPLIANT PROCESS AND Pb FREE FOR MANUFACTURING
9) PCB MATERIAL REQUIREMENTS:

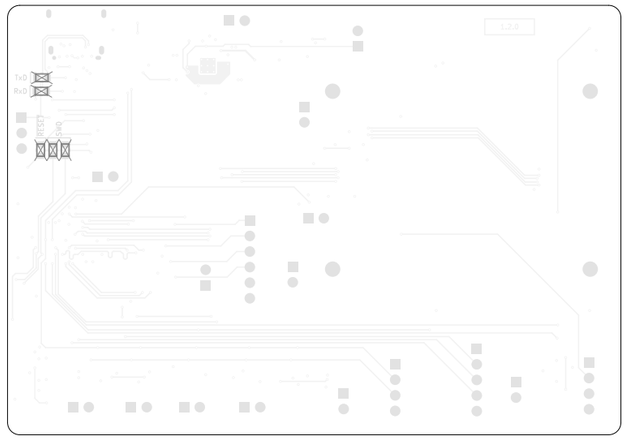
   A. FLAMMABILITY RATING MUST MEET OR EXCEED UL94V-0 REQUIREMENTS.
   B. Tg 150 C OR EQUIVALENT.
   C. EQUIVALENT MATERIAL SHALL BE RoHS COMPLIANT, HALOGEN FREE AND APPROVED BY ZSWATCH.
10) DESIGN GEOMETRY MINIMUM FEATURE SIZES:

BOARD SIZE	100.000 × 70.000 mm
BOARD THICKNESS	1.561 mm
TRACE WIDTH	0.127 mm
TRACE TO TRACE	0.125 mm
MIN. HOLE (PTH)	0.250 mm
MIN. HOLE (NPTH)	0.650 mm
ANNULAR RING	0.100 mm
COPPER TO HOLE	0.125 mm
COPPER TO EDGE	0.125 mm
HOLE TO HOLE	0.250 mm

Comments: ZSWatch	Company: **ZSWatch**		Variant: RELEASED	Git Hash: c205610
	Board Name: **Watch-DevKit-HW**		Project Name: **ZSWatch Watch-DevKit**	
Sheet Title: Top Fabrication (Scale 1:1)	File Name: ZSWatch-Watch-DevKit.kicad_pcb	Designer: Daniel Kampert	Date: 2025-07-13	Revision: 1.2.0
Sheet Path:		Reviewer:	Size: **A3**	Sheet: **1** of **10**

Watch-DevKit-HW Fabrication Document

Bottom Fabrication (Scale 1:1)

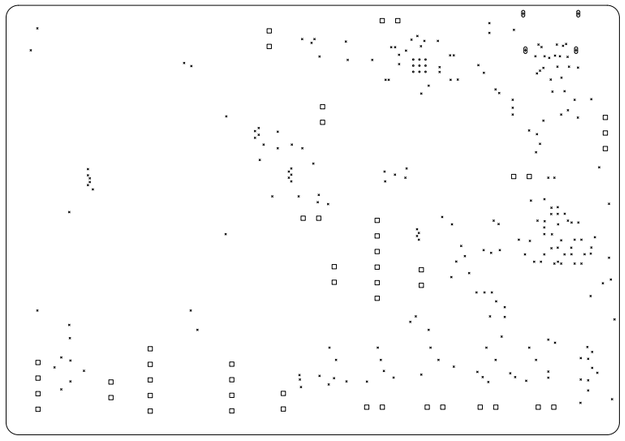


All dimensions are in millimeters unless otherwise specified.

Comments: ZSWatch	Company: **ZSWatch**		Variant: RELEASED	Git Hash: c205610
	Board Name: **Watch-DevKit-HW**		Project Name: **ZSWatch Watch-DevKit**	
Sheet Title: Bottom Fabrication (Scale 1:1)	File Name: ZSWatch-Watch-DevKit.kicad_pcb	Designer: Daniel Kampert	Date: 2025-07-13	Revision: 1.2.0
Sheet Path:		Reviewer:	Size: **A3**	Sheet: **2** of **10**

Watch-DevKit-HW Fabrication Document

Drill Drawing L1 - L4 (Scale 1:1)



Drill Table

Symbol	Count	Hole Size	Plated	Hole Shape	Drill Layer Pair	Hole Type
×	236	0,25mm (9,84mils)	PTH	Round	F.Cu - B.Cu	Via
○	9	0,25mm (9,84mils)	PTH	Round	F.Cu - B.Cu	Pad
+	4	0,50mm (19,69mils)	PTH	Slot	F.Cu - B.Cu	Pad
□	48	1,00mm (39,37mils)	PTH	Round	F.Cu - B.Cu	Pad
	Total 297					

Comments: ZSWatch	Company: **ZSWatch**		Variant: RELEASED	Git Hash: c205610
	Board Name: **Watch-DevKit-HW**		Project Name: **ZSWatch Watch-DevKit**	
Sheet Title: Drill Drawing (L1 - L4)	File Name: ZSWatch-Watch-DevKit.kicad_pcb	Designer: Daniel Kampert	Date: 2025-07-13	Revision: 1.2.0
Sheet Path:		Reviewer:	Size: **A3**	Sheet: **3** of **10**

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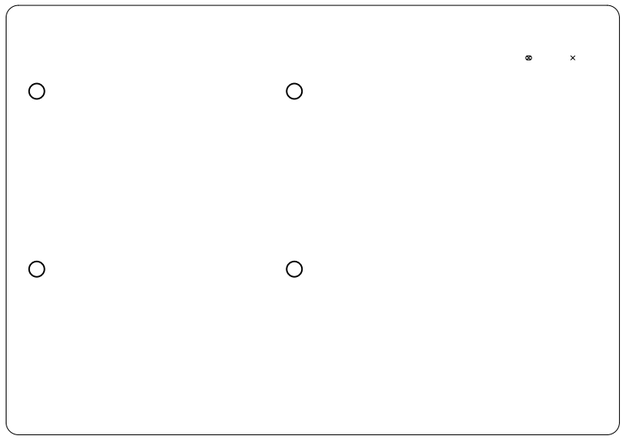
Drill Drawing L1 - L4 (Scale 1:1)

Drill Table

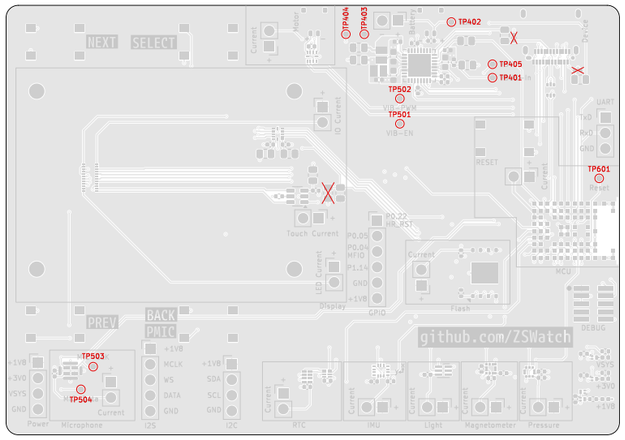
Symbol	Count	Hole Size	Plated	Hole Shape	Drill Layer Pair	Hole Type
×	1 + 1	0,65mm (25,59mils)	NPTH	Round + Slot	F.Cu - B.Cu	Mechanical
○	4	2,50mm (98,43mils)	NPTH	Round	F.Cu - B.Cu	Mechanical
	Total 6					



Comments: ZSWatch	Company: **ZSWatch**			Variant: RELEASED	Git Hash: c205610
	Board Name: **Watch-DevKit-HW**			Project Name: **ZSWatch Watch-DevKit**	
Sheet Title: Drill Drawing (L1 - L4)	File Name: ZSWatch-Watch-DevKit.kicad_pcb	Designer: Daniel Kampert		Date: 2025-07-13	Revision: 1.2.0
Sheet Path:		Reviewer:		Size: **A3**	Sheet: **4** of **10**

Watch-DevKit-HW Fabrication Document

Top Test Points (Scale 1:1)



Ref.	Net	X [mm]	Y [mm]
TP401	VBUS-In	237.30	-125.80
TP402	VBAT	230.60	-116.72
TP403	+1V8	216.40	-118.70
TP404	+3V0	213.40	-118.70
TP405	VSYS	237.30	-123.60
TP501	VIB-EN	222.20	-133.30
TP502	VIB-PWM	222.20	-129.20
TP503	MIC-CLK	172.20	-172.90
TP504	MIC-DATA	170.20	-176.60
TP601	RESETn	254.70	-142.20

Ref.	Net	X [mm]	Y [mm]

Comments: ZSWatch	Company: **ZSWatch**		Variant: RELEASED	Git Hash: c205610
	Board Name: **Watch-DevKit-HW**		Project Name: **ZSWatch Watch-DevKit**	
Sheet Title: Top Test Points (Scale 1:1)	File Name: ZSWatch-Watch-DevKit.kicad_pcb	Designer: Daniel Kampert	Date: 2025-07-13	Revision: 1.2.0
Sheet Path:		Reviewer:	Size: **A3**	Sheet: **5** of **10**

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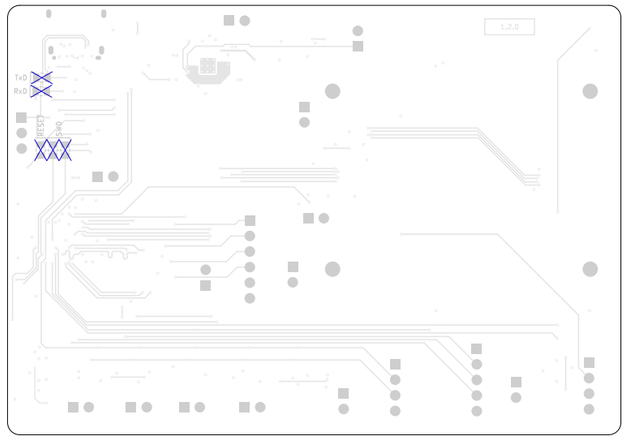
Bottom Test Points (Scale 1:1)



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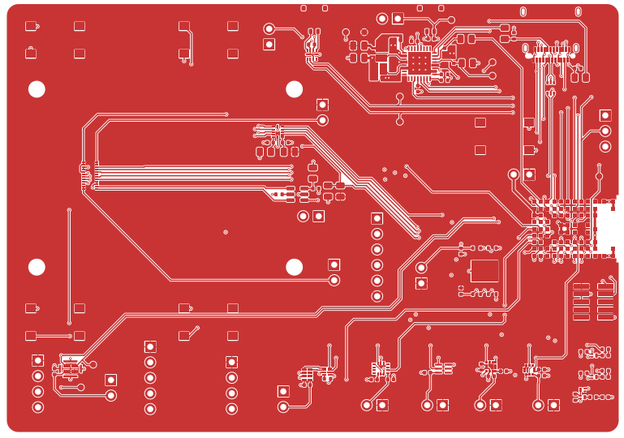
Sheet Title: Bottom Test Points (Scale 1:1)	File Name: ZSWatch-Watch-DevKit.kicad_pcb	Designer: Daniel Kampert	Date: 2025-07-13	Revision: 1.2.0	
Sheet Path:		Reviewer:	Size: **A3**	Sheet: **6** of **10**	

Watch-DevKit-HW Fabrication Document

F.Cu (Scale 1:1)



Comments: ZSWatch	Company: **ZSWatch**		Variant: RELEASED	Git Hash: c205610	
	Board Name: **Watch-DevKit-HW**		Project Name: **ZSWatch Watch-DevKit**		
Sheet Title: F.Cu (Scale 1:1)	File Name: ZSWatch-Watch-DevKit.kicad_pcb	Designer: Daniel Kampert	Date: 2025-07-13	Revision: 1.2.0	
Sheet Path:		Reviewer:	Size: **A3**	Sheet: **7** of **10**	

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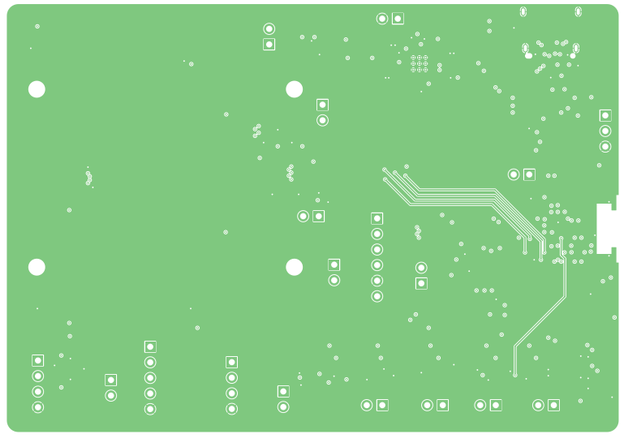
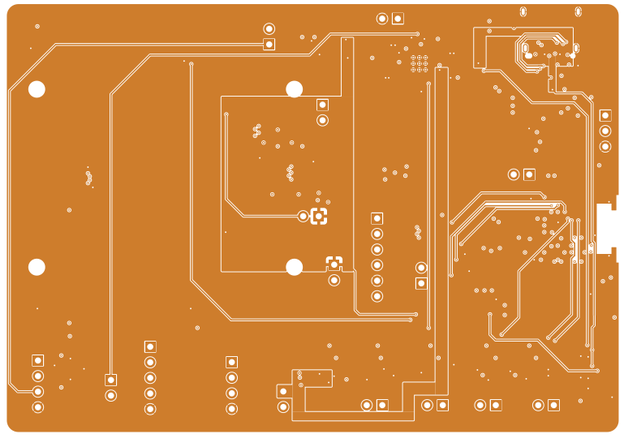
Inner1 (GND) (Scale 1:1)



Comments: ZSWatch	Company: **ZSWatch**		Variant: RELEASED	Git Hash: c205610	
	Board Name: **Watch-DevKit-HW**		Project Name: **ZSWatch Watch-DevKit**		
Sheet Title: Inner1 (GND) (Scale 1:1)	File Name: ZSWatch-Watch-DevKit.kicad_pcb	Designer: Daniel Kampert	Date: 2025-07-13	Revision: 1.2.0	
Sheet Path:		Reviewer:	Size: **A3**	Sheet: **8** of **10**	

Watch-DevKit-HW Fabrication Document

Inner2 (Scale 1:1)



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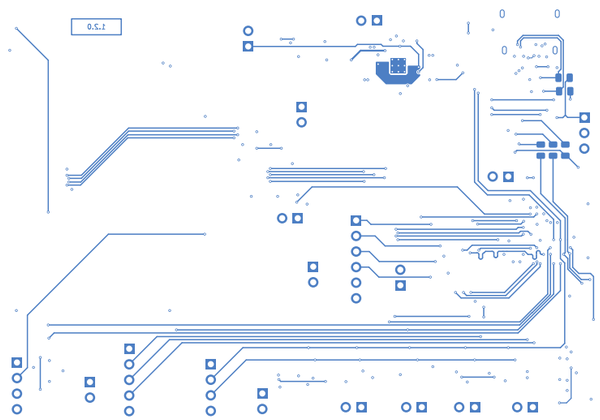
Sheet Title: Inner2 (Scale 1:1)	File Name: ZSWatch-Watch-DevKit.kicad_pcb	Designer: Daniel Kampert	Date: 2025-07-13	Revision: 1.2.0
Sheet Path:		Reviewer:	Size: **A3**	Sheet: **9** of **10**

Watch-DevKit-HW Fabrication Document

B.Cu (Scale 1:1)



Comments: ZSWatch	Company: **ZSWatch**		Variant: RELEASED	Git Hash: c205610
	Board Name: **Watch-DevKit-HW**		Project Name: **ZSWatch Watch-DevKit**	
Sheet Title: B.Cu (Scale 1:1)	File Name: ZSWatch-Watch-DevKit.kicad_pcb	Designer: Daniel Kampert	Date: 2025-07-13	Revision: 1.2.0
Sheet Path:		Reviewer:	Size: **A3**	Sheet: **10** of **10**