

# Watch-DevKit-HW Fabrication Document

## Layer Stack Legend

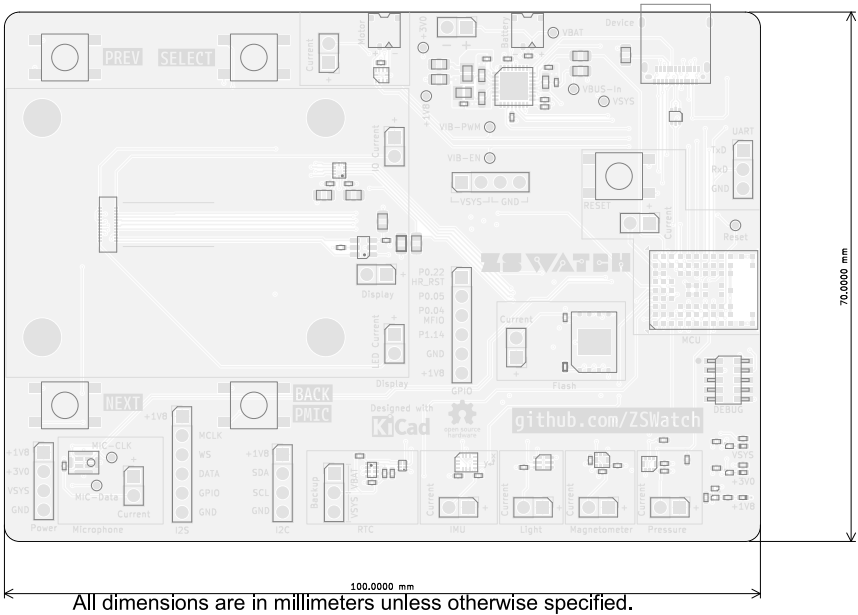
	Material	Layer	Thickness	Dielectric	Type	Gerber
	F,Paste				Paste Mask	
	F,Silkscreen				Legend	GBR
	F,Mask		0,01mm		Solder Mask	GBR
	Copper	F,Cu	0,035mm (1,00oz)		Signal	GBR
	Core		0,196mm	FR4	Dielectric	
	Copper	Inner1 (GND)	0,035mm (1,00oz)		Plane	GBR
	Prepreg		1,03mm	FR4	Dielectric	
	Copper	Inner2	0,035mm (1,00oz)		Plane	GBR
	Core		0,196mm	FR4	Dielectric	
	Copper	B,Cu	0,035mm (1,00oz)		Signal	GBR
	B,Mask		0,01mm		Solder Mask	GBR
	B,Silkscreen				Legend	GBR
	B,Paste				Paste Mask	

Total thickness: 1,582mm  
Note: external layer thicknesses are specified after plating

## Impedance Table

Transmission Line	Impedance [ohms]	Tolerance [%]	Layer	Trace Width [mm]	Gap [mm]	Ref. Layers
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## Top Fabrication (Scale 1:1)



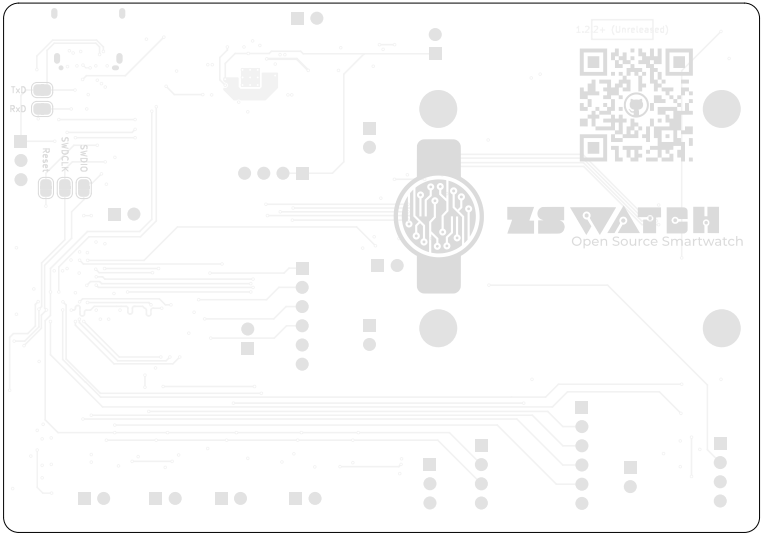
### FABRICATION NOTES (UNLESS OTHERWISE SPECIFIED)

- FABRICATE PER IPC-6012A CLASS 2.
- OUTLINE DEFINED IN SEPARATE GERBER FILE WITH "Edge\_Cuts.GBR" SUFFIX.  
  
DIMENSIONS OF CIRCUMSIZED RECTANGLE SHOWN ON THIS DRAWING FOR REFERENCE ONLY.
- SEE SEPARATE DRILL FILES WITH ".DRL" SUFFIX FOR HOLE LOCATIONS.  
  
SELECTED HOLE LOCATIONS SHOWN ON THIS DRAWING FOR REFERENCE ONLY.
- SURFACE FINISH: HAL LEAD-FREE
- SOLDERMASK ON BOTH SIDES OF THE BOARD SHALL BE LPI, COLOR WHITE.
- SILK SCREEN LEGEND TO BE APPLIED PER LAYER STACKUP USING BLACK NON-CONDUCTIVE EPOXY INK.
- ALL VIAS ARE TENTED ON BOTH SIDES UNLESS SOLDERMASK OPENED IN GERBER.
- VENDOR SHOULD FOLLOW ROHS COMPLIANT PROCESS AND Pb FREE FOR MANUFACTURING
- PCB MATERIAL REQUIREMENTS:  
  
A. FLAMMABILITY RATING MUST MEET OR EXCEED UL94V-0 REQUIREMENTS.  
B. Tg 150 C OR EQUIVALENT.
- DESIGN GEOMETRY MINIMUM FEATURE SIZES:  
  
BOARD SIZE 100,000 × 70,000 mm  
BOARD THICKNESS 1,582 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: PRELIMINARY	Git Hash: 9176898
		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: 1.2.2+ (Unreleased)
	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.

	<b>Comments:</b> ZSWatch	<b>Company:</b> ZSWatch		<b>Variant:</b> PRELIMINARY	<b>Git Hash:</b> 9176898
		<b>Board Name:</b> Watch-DevKit-HW		<b>Project Name:</b> ZSWatch Watch-DevKit	
	<b>Sheet Title:</b> Bottom Fabrication (Scale 1:1)	<b>File Name:</b> ZSWatch-Watch-DevKit.kicad_pcb	<b>Designer:</b> Daniel Kampert	<b>Date:</b> 2025-07-13	<b>Revision:</b> 1.2.2+ (Unreleased)
	<b>Sheet Path:</b>		<b>Reviewer:</b>	<b>Size:</b> A3	<b>Sheet:</b> 2 of 10



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	Watch-DevKit-HW Fabrication Document																																			
B	Drill Drawing L1 - L4 (Scale 1:1)																																			
	<div> <div>Drill Table</div> <table> <tr> <th>Symbol</th><th>Count</th><th>Hole Size</th><th>Plated</th><th>Hole Shape</th><th>Drill Layer Pair</th><th>Hole Type</th></tr> <tr> <td>×</td><td>1 + 1</td><td>0,65mm (25,59mils)</td><td>NPTH</td><td>Round + Slot</td><td>F,Cu - B,Cu</td><td>Mechanical</td></tr> <tr> <td></td><td>Total 2</td><td></td><td></td><td></td><td></td><td></td></tr> </table> </div> <div> </div>																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		Total 2				
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															A3	4 of 10																				

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															A3	4 of 10																				

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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
×	1 + 1	0,65mm (25,59mils)	NPTH	Round + Slot	F,Cu - B,Cu	Mechanical
	Total 2					

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	Comments:	Company:		Variant:	Git Hash:
	ZSWatch	ZSWatch		PRELIMINARY	9176898
		Board Name:		Project Name:	
		Watch-DevKit-HW		ZSWatch Watch-DevKit	
Sheet Title:	File Name:	Designer:	Date:	Revision:	
Drill Drawing (L1 - L4)	ZSWatch-Watch-DevKit.kicad_pcb	Daniel Kampert	2025-07-13	1.2.2+ (Unreleased)	
Sheet Path:	Reviewer:		Size:	Sheet:	
			A3	4 of 10	

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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
×	1 + 1	0,65mm (25,59mils)	NPTH	Round + Slot	F,Cu - B,Cu	Mechanical
	Total 2					

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Comments:

ZSWatch

Company:

ZSWatch

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:

1.2.2+ (Unreleased)

Sheet Path:

Reviewer:

Size:

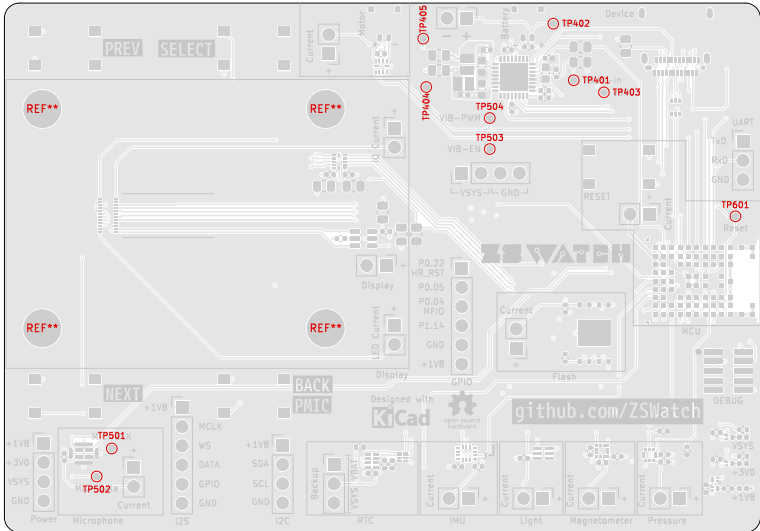
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Sheet:

4 of 10

Watch-DevKit-HW Fabrication Document

Top Test Points (Scale 1:1)



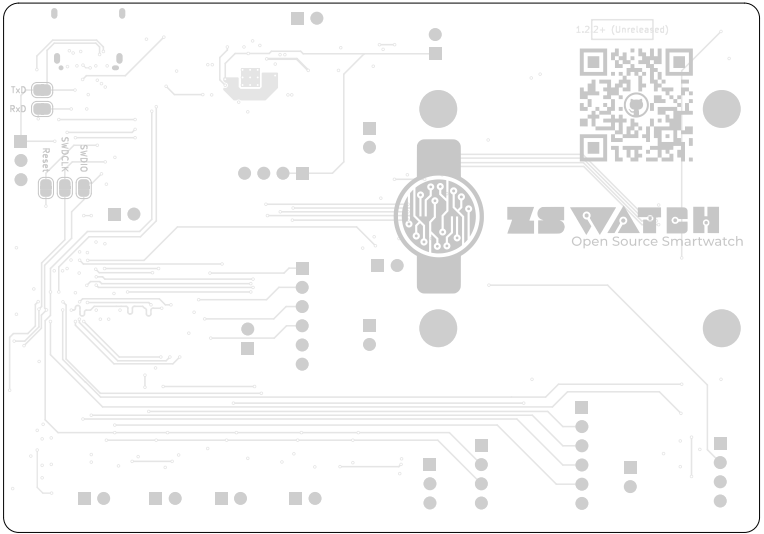
Ref.	Net	X [mm]	Y [mm]
TP401	VBUS-In	233.30	-124.20
TP402	VBAT	230.60	-116.72
TP403	VSYS	237.30	-125.80
TP404	+1V8	213.80	-125.10
TP405	+3V0	213.40	-118.70
TP501	MIC-CLK	172.20	-172.90
TP502	MIC-DATA	170.20	-176.60
TP503	VIB-EN	222.20	-133.30
TP504	VIB-PWM	222.20	-129.20
TP601	RESETn	254.70	-142.20

Ref.	Net	X [mm]	Y [mm]
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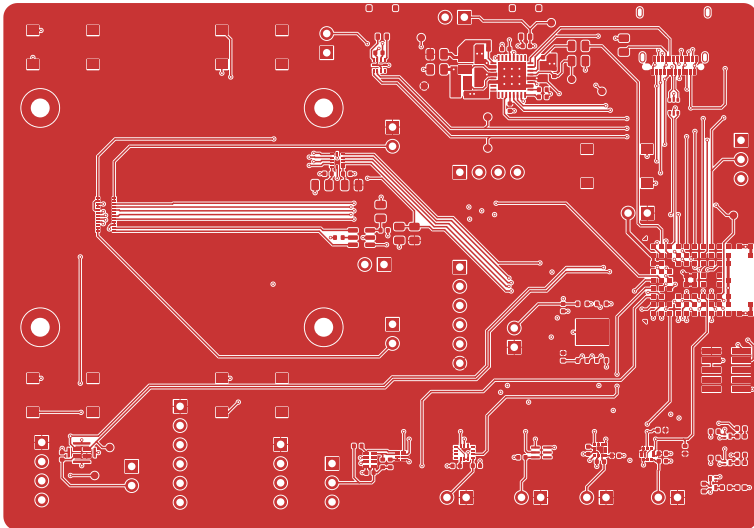
Comments: ZSWatch	Company: ZSWatch		Variant: PRELIMINARY	Git Hash: 9176898
	Board Name: Watch-DevKit-HW		Project Name: ZSWatch Watch-DevKit	
	Sheet Title: Top Test Points (Scale 1:1)	File Name: ZSWatch-Watch-DevKit.kicad_pcb	Designer: Daniel Kampert	Date: 2025-07-13
Sheet Path:			Reviewer:	Size: A3
				Revision: 1.2.2+ (Unreleased)
				Sheet: 5 of 10

Watch-DevKit-HW Fabrication Document

Bottom Test Points (Scale 1:1)



	<b>Comments:</b> ZSWatch	<b>Company:</b> ZSWatch		<b>Variant:</b> PRELIMINARY	<b>Git Hash:</b> 9176898
		<b>Board Name:</b> Watch-DevKit-HW		<b>Project Name:</b> ZSWatch Watch-DevKit	
	<b>Sheet Title:</b> Bottom Test Points (Scale 1:1)	<b>File Name:</b> ZSWatch-Watch-DevKit.kicad_pcb	<b>Designer:</b> Daniel Kampert	<b>Date:</b> 2025-07-13	<b>Revision:</b> 1.2.2+ (Unreleased)
	<b>Sheet Path:</b>		<b>Reviewer:</b>	<b>Size:</b> A3	<b>Sheet:</b> 6 of 10

1	2	3	4	5	6	7	8			
A	Watch-DevKit-HW Fabrication Document							A		
B	F.Cu (Scale 1:1)							B		
C								C		
D								D		
E								E		
F					Comments: ZSWatch		Company: ZSWatch		Variant: PRELIMINARY	Git Hash: 9176898
					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: 1.2.2+ (Unreleased)		
Sheet Path:					Reviewer:	Size: A3	Sheet: 7 of 10			
1	2	3	4	5	6	7	8			

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Watch-DevKit-HW Fabrication Document

Inner1 (GND) (Scale 1:1)



	Comments: ZSWatch		Company: ZSWatch		Variant: PRELIMINARY	Git Hash: 9176898
			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: 1.2.2+ (Unreleased)	
	Sheet Path:		Reviewer:	Size: A3	Sheet: 8 of 10	

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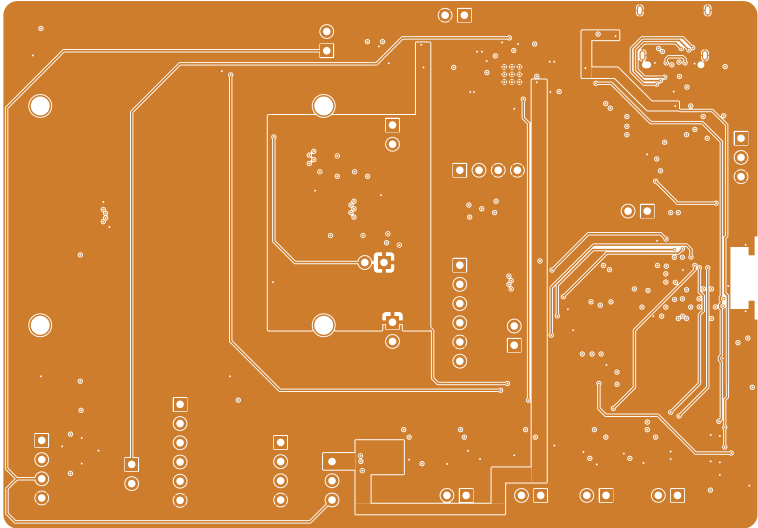
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Watch-DevKit-HW Fabrication Document

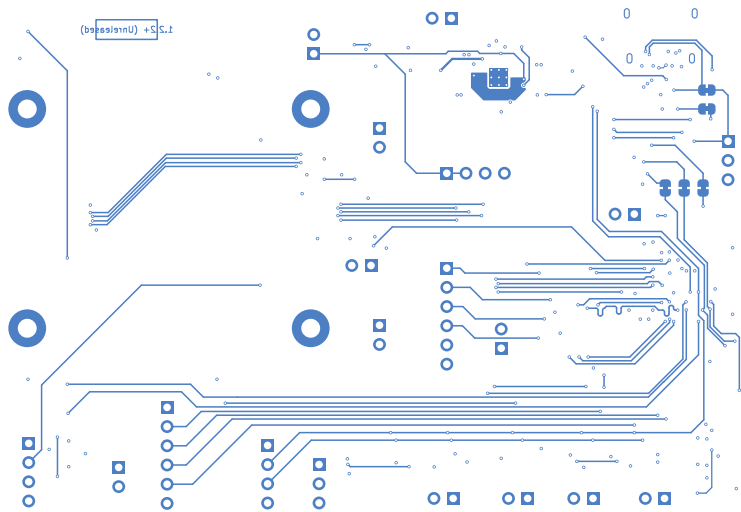
Inner2 (Scale 1:1)



	<b>Comments:</b> ZSWatch	<b>Company:</b> ZSWatch		<b>Variant:</b> PRELIMINARY	<b>Git Hash:</b> 9176898
		<b>Board Name:</b> Watch-DevKit-HW		<b>Project Name:</b> ZSWatch Watch-DevKit	
	<b>Sheet Title:</b> Inner2 (Scale 1:1)	<b>File Name:</b> ZSWatch-Watch-DevKit.kicad_pcb	<b>Designer:</b> Daniel Kampert	<b>Date:</b> 2025-07-13	<b>Revision:</b> 1.2.2+ (Unreleased)
	<b>Sheet Path:</b>		<b>Reviewer:</b>	<b>Size:</b> A3	<b>Sheet:</b> 9 of 10

Watch-DevKit-HW Fabrication Document

B.Cu (Scale 1:1)



	<b>Comments:</b> ZSWatch		<b>Company:</b> ZSWatch		<b>Variant:</b> PRELIMINARY	<b>Git Hash:</b> 9176898
			<b>Board Name:</b> Watch-DevKit-HW		<b>Project Name:</b> ZSWatch Watch-DevKit	
	<b>Sheet Title:</b> B.Cu (Scale 1:1)		<b>File Name:</b> ZSWatch-Watch-DevKit.kicad_pcb	<b>Designer:</b> Daniel Kampert	<b>Date:</b> 2025-07-13	<b>Revision:</b> 1.2.2+ (Unreleased)
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