

Heartrate-DevKit-HW Fabrication Document

Layer Stack Legend

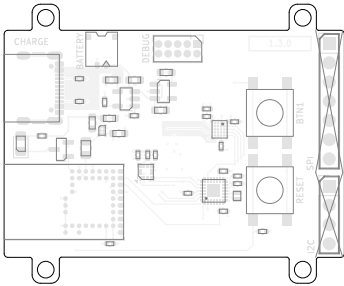
	Material	Layer	Thickness	Dielectric	Type	Gerber
		F,Paste			Paste Mask	
		F,Silkscreen			Legend	GBR
		F,Mask	0,01mm		Solder Mask	GBR
	Copper	F,Cu	0,035mm (1oz)		Signal	GBR
	Core		0,196mm	FR4	Dielectric	
	Copper	Inner1	0,035mm (1oz)		Plane	GBR
	Prepreg		0,43mm	FR4	Dielectric	
	Copper	Inner2	0,035mm (1oz)		Plane	GBR
	Core		0,196mm	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: 0,982mm
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)

- 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 GREEN.
- 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 SIZE45.000 x 36.900 mm

BOARD THICKNESS0.982 mm

TRACE WIDTH0.150 mm

TRACE TO TRACE0.100 mm

MIN. HOLE (PTH)0.150 mm

MIN. HOLE (NPTH)0.650 mm

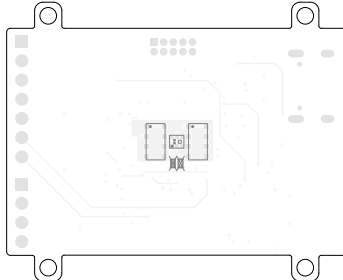
ANNULAR RING0.100 mm

COPPER TO HOLE0.100 mm

COPPER TO EDGE0.100 mm

HOLE TO HOLE0.100 mm

	Comments: ZSWatch	Company: ZSWatch		Variant: RELEASED	Git Hash: e7f6e1d	
		Board Name: Heartrate-DevKit-HW		Project Name: ZSWatch Heartrate-DevKit		
	Sheet Title: Top Fabrication (Scale 1:1)	File Name: ZSWatch-Heartrate-DevKit.kicad_pcb	Designer: Daniel Kampert	Date: 2025-07-13	Revision: 1.3.0	
	Sheet Path:		Reviewer:	Size: A3	Sheet: 1 of 10	

Heartrate-DevKit-HW Fabrication Document											
Bottom Fabrication (Scale 1:1)											
											
					Comments:		Company:		Variant:	Git Hash:	
					ZSWatch		ZSWatch		RELEASED	e7f6e1d	
					Sheet Title:		File Name:	Designer:	Date:	Revision:	
					Bottom Fabrication (Scale 1:1)		ZSWatch-Heartrate-DevKit.kicad_pcb	Daniel Kampert	2025-07-13	1.3.0	
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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
X	88	0,15mm (5,91mils)	PTH	Round	F,Cu - B,Cu	Via
O	4	0,60mm (23,62mils)	PTH	Slot	F,Cu - B,Cu	Pad
+	10	0,65mm (25,59mils)	PTH	Round	F,Cu - B,Cu	Pad
□	11	1,00mm (39,37mils)	PTH	Round	F,Cu - B,Cu	Pad
	Total 113					

Comments:
ZSWatch

Company:
ZSWatch

Variant:
RELEASED

Git Hash:
c7f6cid

Board Name:
Heartrate-DevKit-HW

Project Name:
ZSWatch Heartrate-DevKit

Sheet Title:
Drill Drawing (L1 - L4)

File Name:
ZSWatch-Heartrate-DevKit.kicad_pcb

Designer:
Daniel Kampert

Date:
2025-07-13

Revision:
1.3.0

Sheet Path:

Reviewer:

Size:
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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
X	88	0,15mm (5,91mils)	PTH	Round	F,Cu - B,Cu	Via
O	4	0,60mm (23,62mils)	PTH	Slot	F,Cu - B,Cu	Pad
+	10	0,85mm (25,59mils)	PTH	Round	F,Cu - B,Cu	Pad
□	11	1,00mm (39,37mils)	PTH	Round	F,Cu - B,Cu	Pad
	Total 113					

	Comments: ZSWatch	Company: ZSWatch		Variant: RELEASED	Git Hash: c7f6cid
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	Sheet Title: Drill Drawing (L1 - L4)	File Name: ZSWatch-Heartrate-DevKit.kicad_pcb	Designer: Daniel Kampert	Date: 2025-07-13	Revision: 1.3.0
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Heartrate-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
×	88	0,15mm (5,91mils)	PTH	Round	F,Cu - B,Cu	Via
O	4	0,60mm (23,62mils)	PTH	Slot	F,Cu - B,Cu	Pad
+	10	0,65mm (25,59mils)	PTH	Round	F,Cu - B,Cu	Pad
□	11	1,00mm (39,37mils)	PTH	Round	F,Cu - B,Cu	Pad
	Total 113					

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		Heartrate-DevKit-HW		ZSWatch Heartrate-DevKit	
Sheet Title:	File Name:	Designer:	Date:	Revision:	
Drill Drawing (L1 - L4)	ZSWatch-Heartrate-DevKit.kicad_pcb	Daniel Kampert	2025-07-13	1.3.0	
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Heartrate-DevKit-HW Fabrication Document

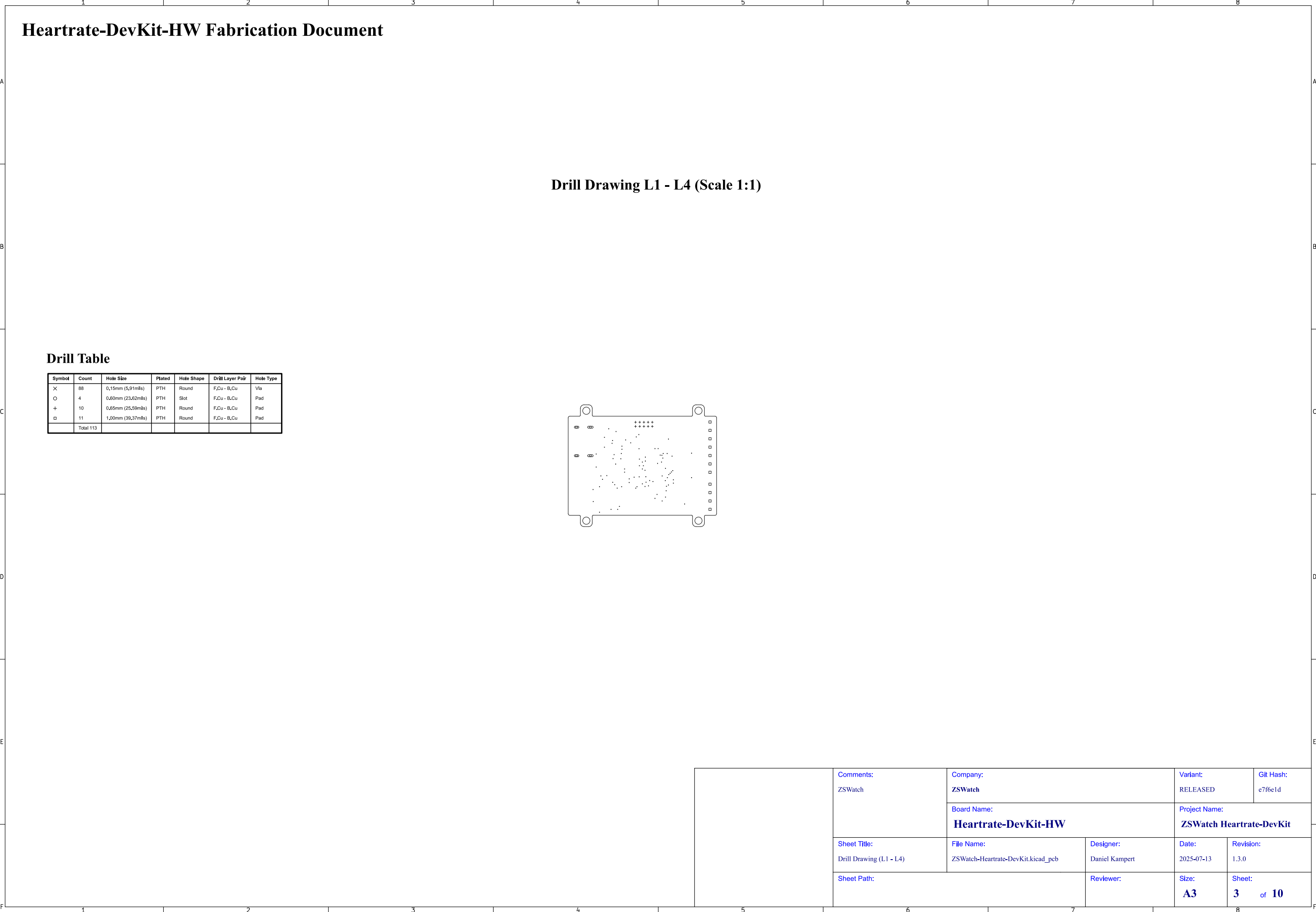
Drill Drawing L1 - L4 (Scale 1:1)

Drill Table

Symbol	Count	Hole Size	Plated	Hole Shape	Drill Layer Pair	Hole Type
×	88	0,15mm (5,91mils)	PTH	Round	F,Cu - B,Cu	Via
○	4	0,60mm (23,62mils)	PTH	Slot	F,Cu - B,Cu	Pad
+	10	0,85mm (25,59mils)	PTH	Round	F,Cu - B,Cu	Pad
□	11	1,00mm (39,37mils)	PTH	Round	F,Cu - B,Cu	Pad
	Total 113					

The drill drawing shows a rectangular PCB layout with various hole patterns. The holes are represented by symbols: crosses (vias), circles (slots), plus signs (round pads), and squares (round pads). The drawing includes dimensions and a scale of 1:1.

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		Board Name:		Project Name:	
		Heartrate-DevKit-HW		ZSWatch Heartrate-DevKit	
Sheet Title:	File Name:	Designer:	Date:	Revision:	
Drill Drawing (L1 - L4)	ZSWatch-Heartrate-DevKit.kicad_pcb	Daniel Kampert	2025-07-13	1.3.0	
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Heartrate-DevKit-HW Fabrication Document

Drill Drawing L1 - L4 (Scale 1:1)

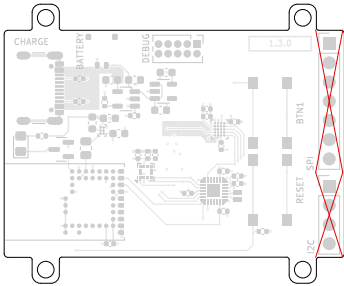
Drill Table

Symbol	Count	Hole Size	Plated	Hole Shape	Drill Layer Pair	Hole Type
X	88	0,15mm (5,91mils)	PTH	Round	F,Cu - B,Cu	Via
O	4	0,60mm (23,62mils)	PTH	Slot	F,Cu - B,Cu	Pad
+	10	0,65mm (25,59mils)	PTH	Round	F,Cu - B,Cu	Pad
□	11	1,00mm (39,37mils)	PTH	Round	F,Cu - B,Cu	Pad
	Total 113					

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	Sheet Title:	File Name:	Designer:	Date:	Revision:
	Drill Drawing (L1 - L4)	ZSWatch-Heartrate-DevKit.kicad_pcb	Daniel Kampert	2025-07-13	1.3.0
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Heartrate-DevKit-HW Fabrication Document

Top Test Points (Scale 1:1)



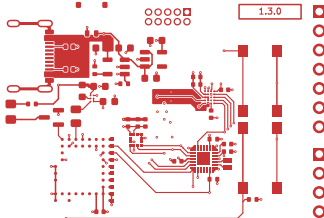
Ref.	Net	X [mm]	Y [mm]
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Ref.	Net	X [mm]	Y [mm]
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	Comments: ZSWatch	Company: ZSWatch		Variant: RELEASED	Git Hash: e7f6e1d
		Board Name: Heartrate-DevKit-HW		Project Name: ZSWatch Heartrate-DevKit	
	Sheet Title: Top Test Points (Scale 1:1)	File Name: ZSWatch-Heartrate-DevKit.kicad_pcb	Designer: Daniel Kampert	Date: 2025-07-13	Revision: 1.3.0
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A	<div>Heartrate-DevKit-HW Fabrication Document</div>								A
B	<div>Bottom Test Points (Scale 1:1)</div>								B
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E									E
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	Comments:	Company:		Variant:	Git Hash:
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		Board Name:		Project Name:	
		Heartrate-DevKit-HW		ZSWatch Heartrate-DevKit	
	Sheet Title:	File Name:	Designer:	Date:	Revision:
	Bottom Test Points (Scale 1:1)	ZSWatch-Heartrate-DevKit.kicad_pcb	Daniel Kampert	2025-07-13	1.3.0
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Heartrate-DevKit-HW Fabrication Document										
F.Cu (Scale 1:1)										
										
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			Board Name: Heartrate-DevKit-HW		Project Name: ZSWatch Heartrate-DevKit					
	Sheet Title: F.Cu (Scale 1:1)		File Name: ZSWatch-Heartrate-DevKit.kicad_pcb		Designer: Daniel Kampert		Date: 2025-07-13		Revision: 1.3.0	
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Heartrate-DevKit-HW Fabrication Document							
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						Variant:	
						RELEASED	
F				Board Name:		Project Name:	
				Heartrate-DevKit-HW		ZSWatch Heartrate-DevKit	
				Sheet Title:		File Name:	
				Inner1 (Scale 1:1)		ZSWatch-Heartrate-DevKit.kicad_pcb	
F				Designer:		Date:	
				Daniel Kampert		2025-07-13	
				Revision:		1.3.0	
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