



AS7050

e005_AWS AS7050 Rev 1.3.1

e005fd0_AWS AS7050 VitalSignEVK_MOD

Variant standard



Table of Contents

Sheet 1:	e005fd0_AWS AS7050 VitalSignEVK_MOD _Title Page
Sheet 2:	e005fd0_AWS AS7050 VitalSignEVK_MOD _Project Page (This page)
Sheet 3:	e005fd0_AWS AS7050 VitalSignEVK_MOD _scm_01 (argon)
Sheet 4:	e005fd0_AWS AS7050 VitalSignEVK_MOD_scm_02 (isolation)
Sheet 5:	e005fd0_AWS AS7050 VitalSignEVK_MODK _scm_03 (interfaces)
Sheet 6:	e005fd0_AWS AS7050 VitalSignEVK_MOD_scm_04 (LDO/ADC)
Sheet 7:	e005fd0_AWS AS7050 VitalSignEVK_MOD _scm_05 (AS7050)

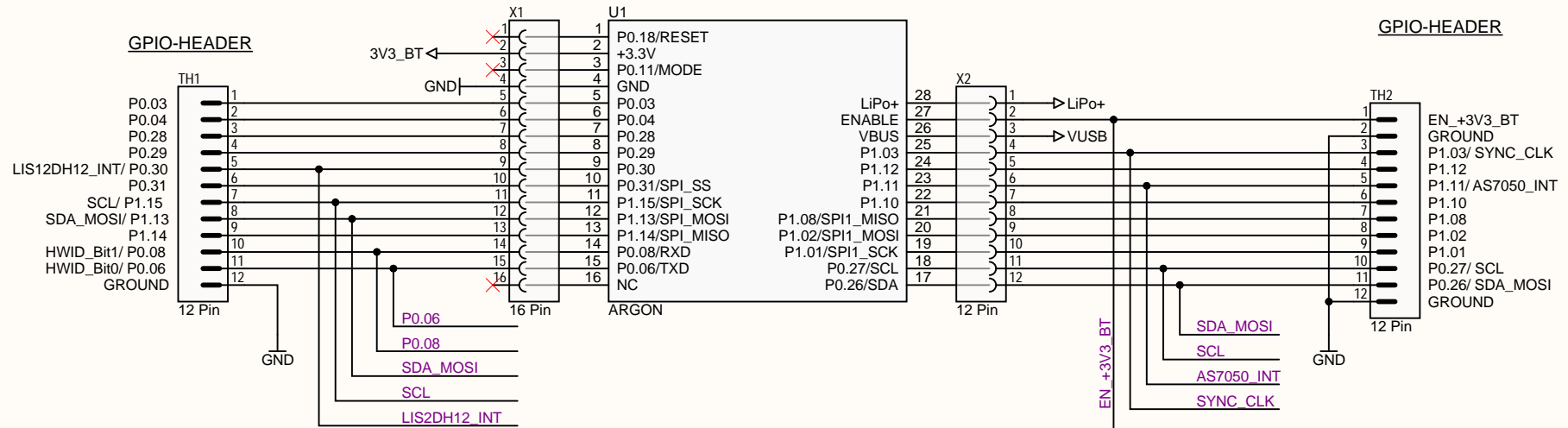
Revision History

Rev 1.0.0: Initial Release	Release Date: 27/07/2020
Rev 1.1.0: update Release	Release Date: 26/01/2021
Rev 1.2.0: update Release	Release Date: 24/03/2021
Rev 1.3.0: update Release	Release Date: 17/05/2021

Design Changes

Rev 1.1.0:	modify connector J300 (16pin to 20 pin type) modify R26 1k to 1k2 modify R31 240R to 330R insert HW-ID set to 0x00h for EVK rev1.1.0 - V5 TP1 - input available for free uses
Rev 1.2.0:	added LC-filtering in power supply LDO's and layout changes
Rev 1.3.0:	modify on/off time U13; (C43 100n; C52 150n) modification in PCB-Design (ECG Unit) C7,C8,C10 reference to Analogground
Rev 1.3.1:	changing L1 33μH; C25 10μF

Bluetooth Modul



HW-Ident.: "0x00"

LP1
BioSense Main Stiffener
B1
Li-Polymer Battery

Mounting material

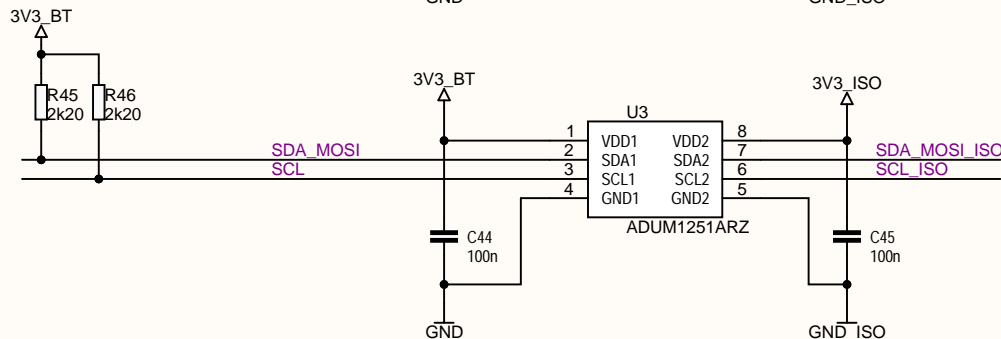
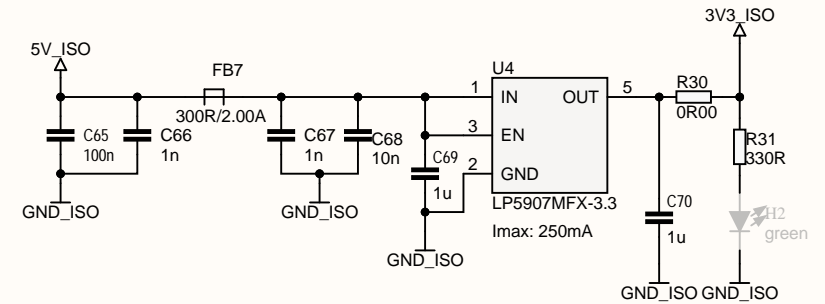
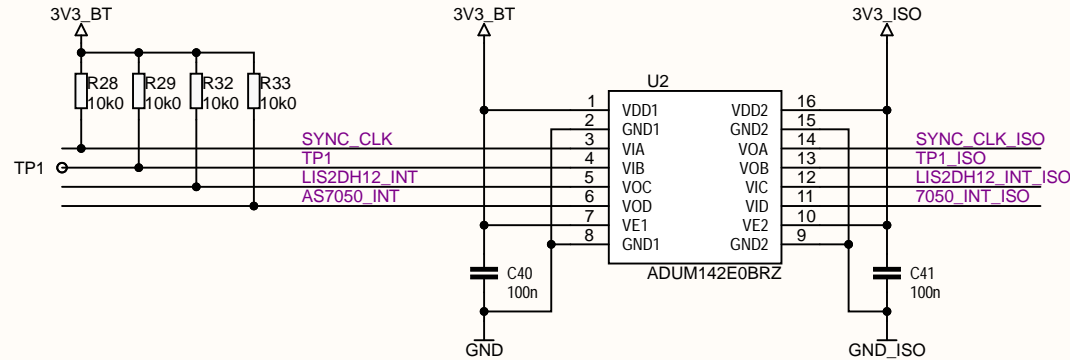
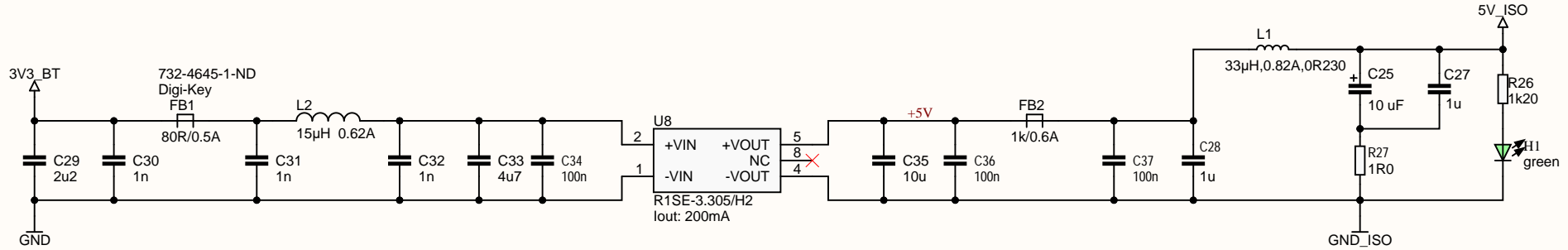
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Nylon_Standoff	Nylon_Standoff	Nylon_Standoff	NYLON, M3X6	NYLON, M3X6	
M6	M7		M8	M9	
Nylon_Standoff	Nylon_Standoff		NYLON, M3X6	NYLON, M3X6	
M10	M11		M12	M13	
Nylon_Standoff	Nylon_Standoff		NYLON, M3X6	NYLON, M3X6	
					M14
					NYLON, M3X6



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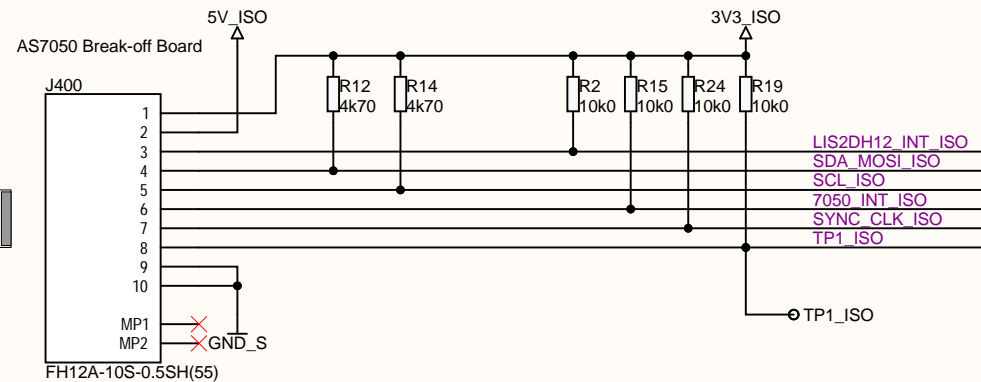
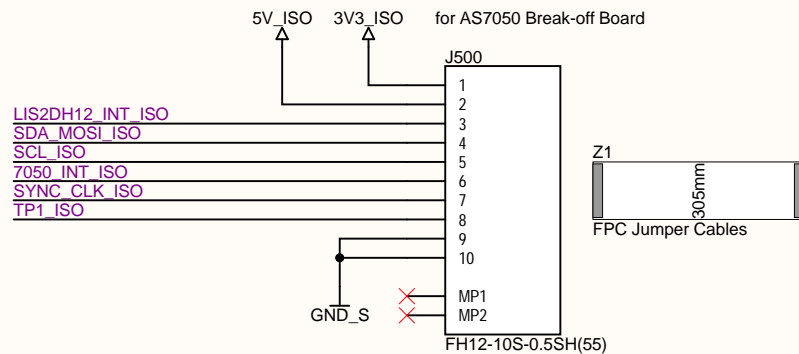
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Application Engineer: MKNE Release Date: 17/05/2021
Sheet Name: e005fd0_AWS AS7050 VitalSignEVK_MOD_scm_01.SchDoc
Page Size: A4 Last Save Date / Time: 29.10.2021 / 08:53:10
Project: e005_AWS AS7050 Sheet 3 of 7

isolation barrier

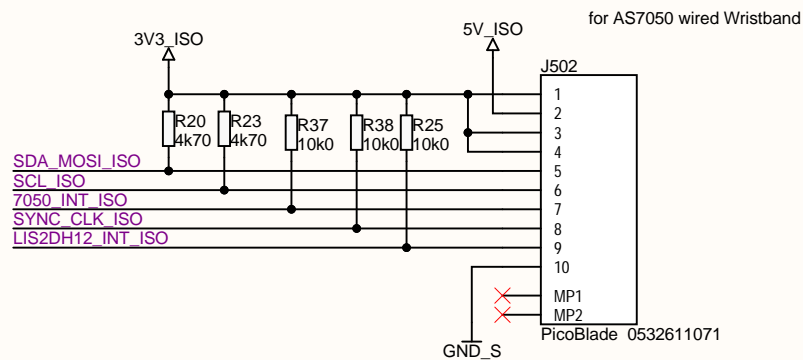


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PCB Name: e005fd_AWS AS7050 VitalSignEVK_MOD.PcbDoc	Rev 1.3.1
Application Engineer: MKNE	Release Date: 17/05/2021
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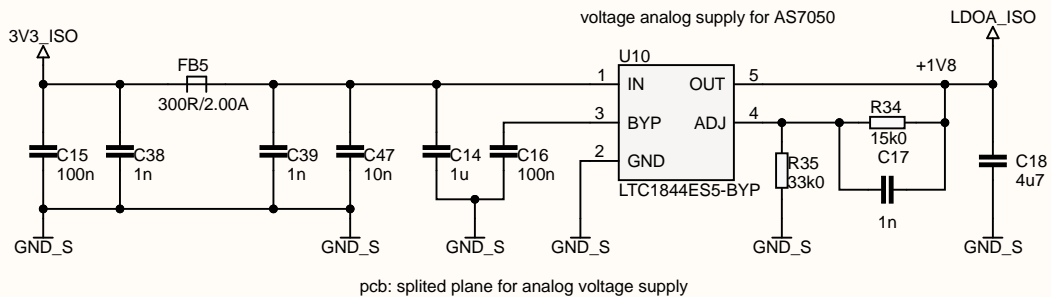


placed on bottom side
of sensorboard

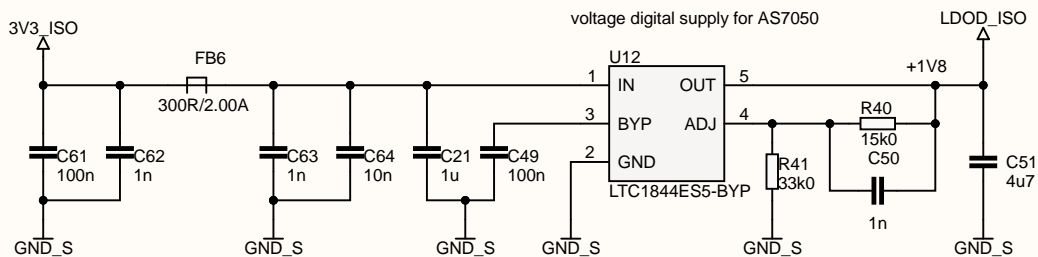


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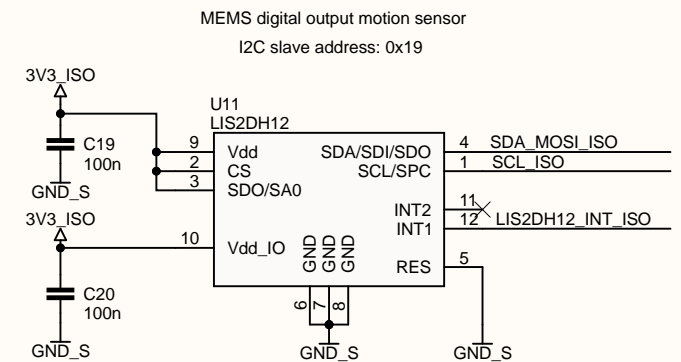
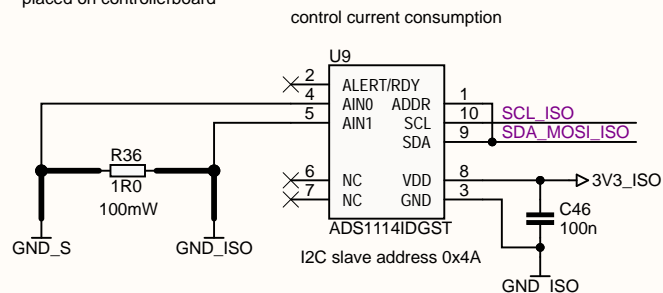
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Page Size: A4	Last Save Date / Time: 29.10.2021 / 08:53:10
Project: e005_AWS AS7050	Sheet 5 of 7



placed on sensorboard



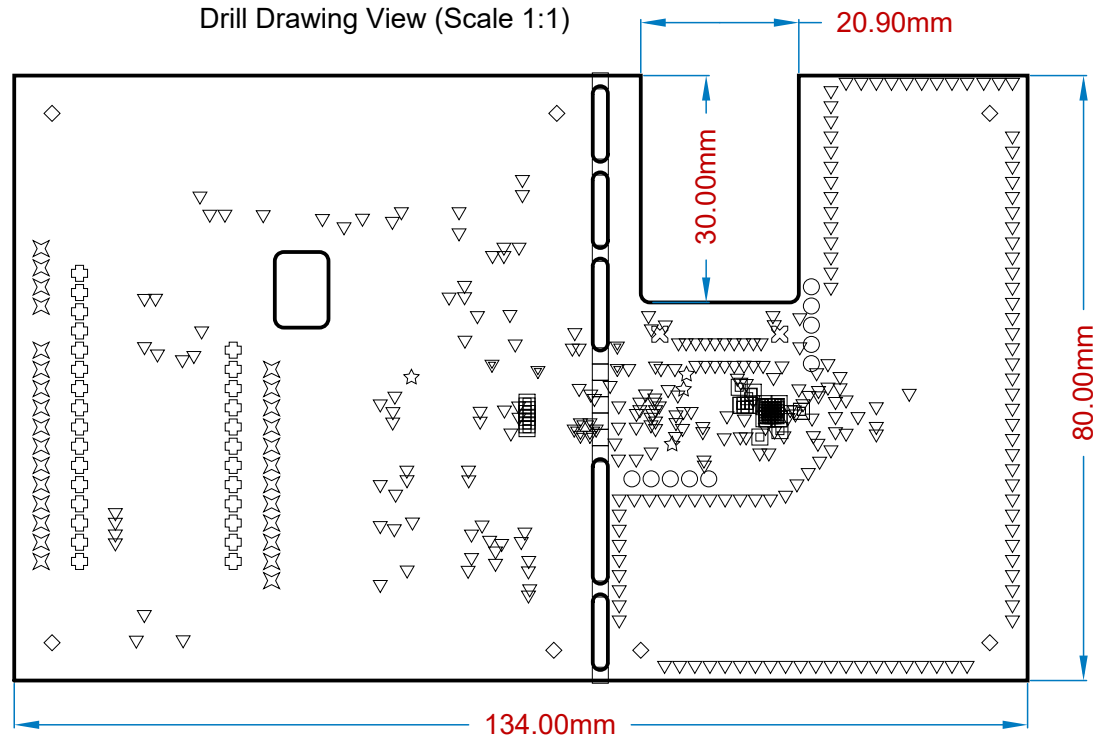
placed on controllerboard



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Product: AS7050	Variant standard
PCB Name: e005fd_AWS AS7050 VitalSignEVK_MOD.PcbDoc	Rev 1.3.1
Application Engineer: MKNE	Release Date: 17/05/2021
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Page Size: A4	Last Save Date / Time: 29.10.2021 / 08:53:10
Project: e005_AWS AS7050	Sheet 6 of 7

Drill Drawing View (Scale 1:1)



- ① HDI; 1.6mm $\pm 10\%$ 6-Layer FR4 (MLL6); StackMicro VIA
see: HDI06_2_2_2_1_60_35.pdf
- ② manufactured with IPC Claas 2
- ③ Technology: 100 μ m
smallest drill: 100 μ m
Blind VIA's
- ④ Prepreg and Core Thickness is free to defined
- ⑤ outline is milled
- ⑥ finished surface is ENIG
- ⑦ Silkscreen color is white
- ⑧ Solder Mask is green standard
- ⑨ check Gerber files against the IPC-D-356A.ipc netlist file
- ⑩ Questions to:
ams Sensors Germany GmbH
Michael Kleiner
e-mail: michael.kleiner@ams.com
Phone: +49 3641 280955

Drill Table

Symbol	Count	Hole Size	Plated	Hole Tolerance
□	52	0.10mm	Plated	
▽	288	0.15mm	Plated	
▽	10	0.20mm	Plated	
□	12	0.50mm	Non-Plated	
☆	4	0.80mm	Plated	
⊕	28	0.86mm	Plated	
○	10	1.00mm	Plated	
✕	28	1.10mm	Plated	
✕	2	1.60mm	Non-Plated	
◇	7	3.20mm	Non-Plated	
441 Total				



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Application Engineer: MKNE

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Last Save Date / Time: 29.10.2021 / 08:53

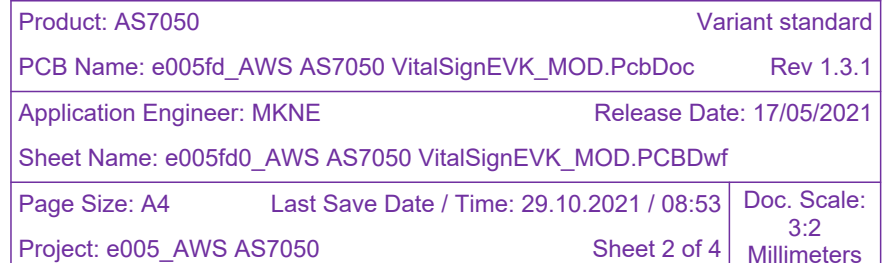
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Project: e005_AWS AS7050

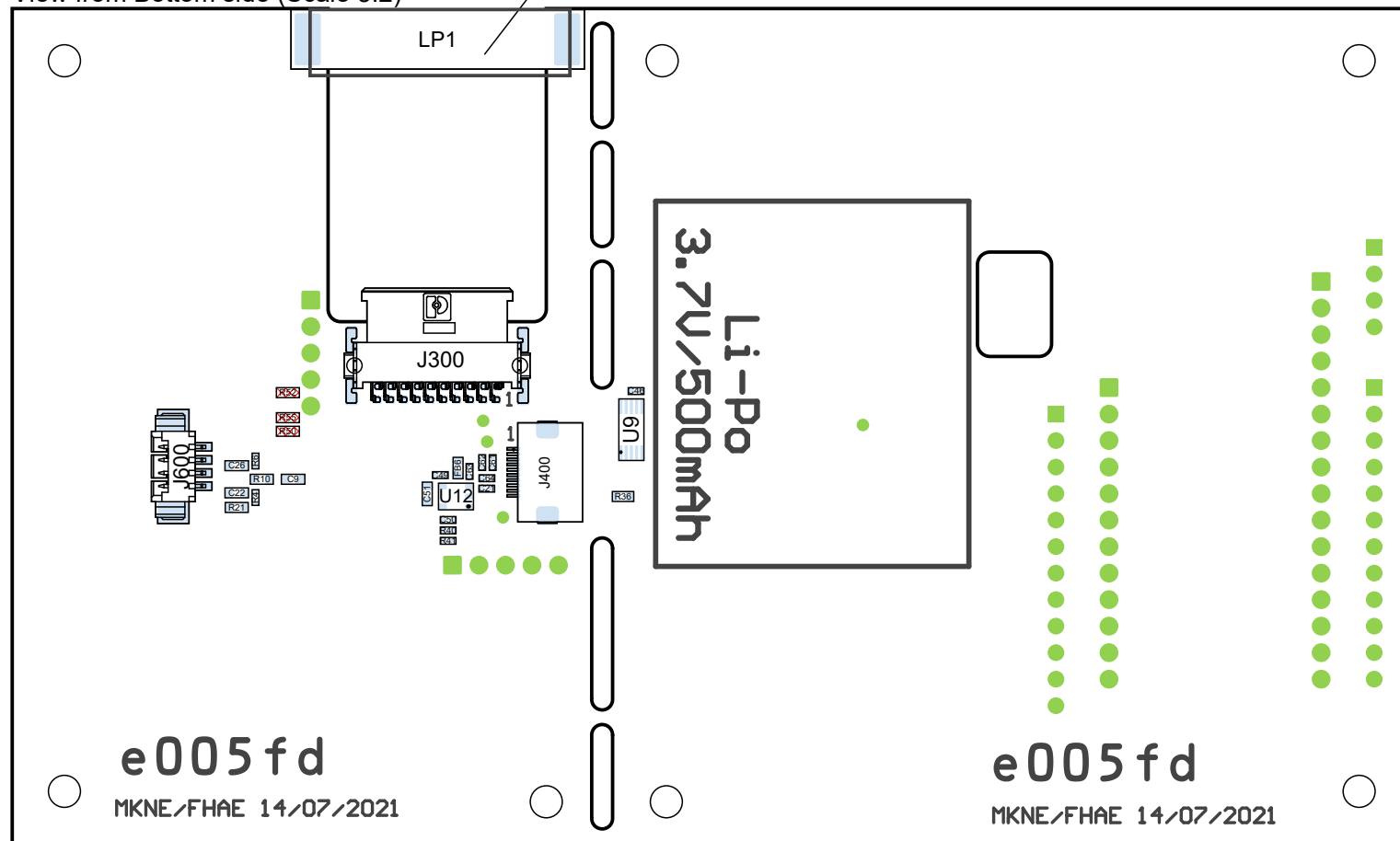
Sheet 1 of 4

3:2

Millimeters



View from Bottom side (Scale 3:2)



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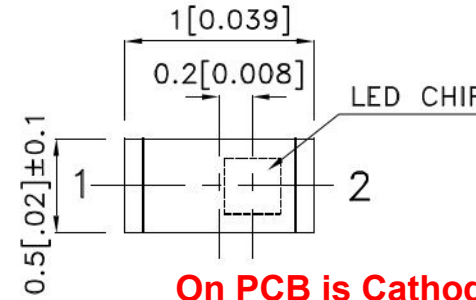
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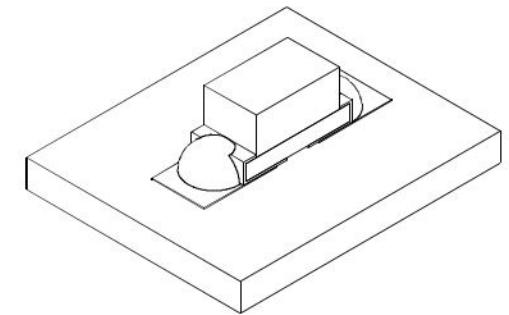
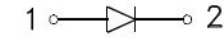
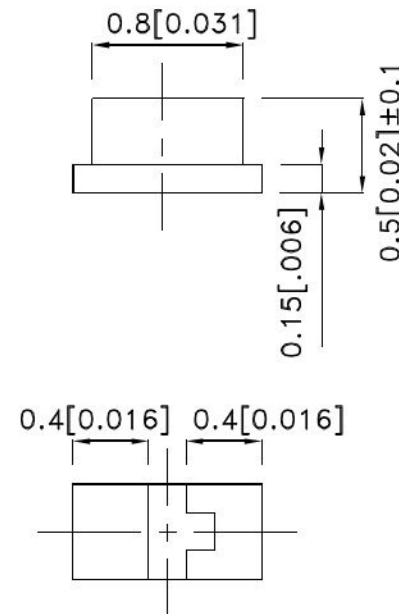
Sheet 3 of 4

3:2
Millimeters

H1 and H2:



On PCB is Cathode marked with a point!



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Project: e005_AWS AS7050

Sheet 4 of 4

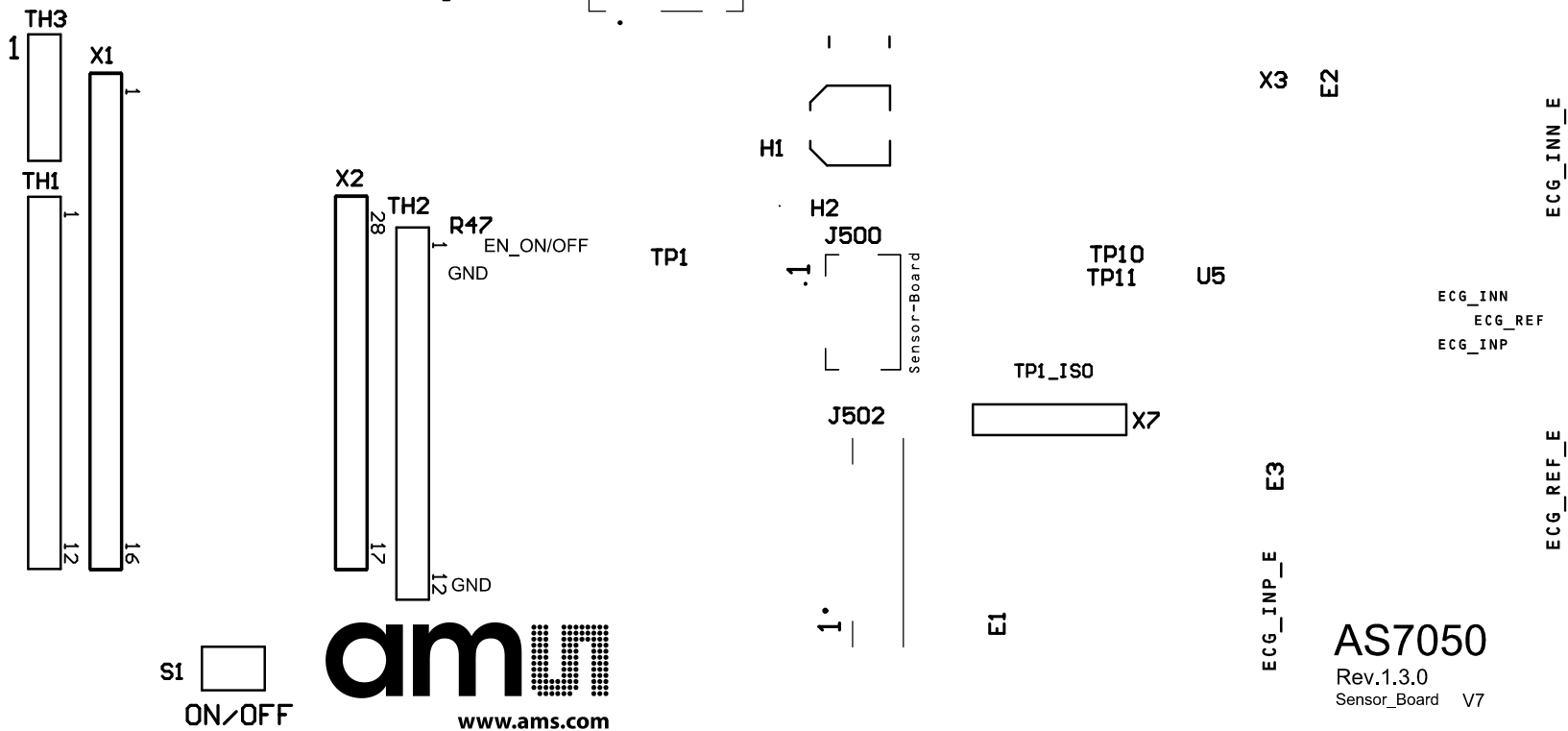
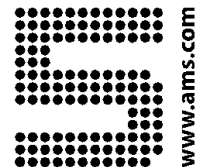
3:2
Millimeters

Top Overlay

AS7050

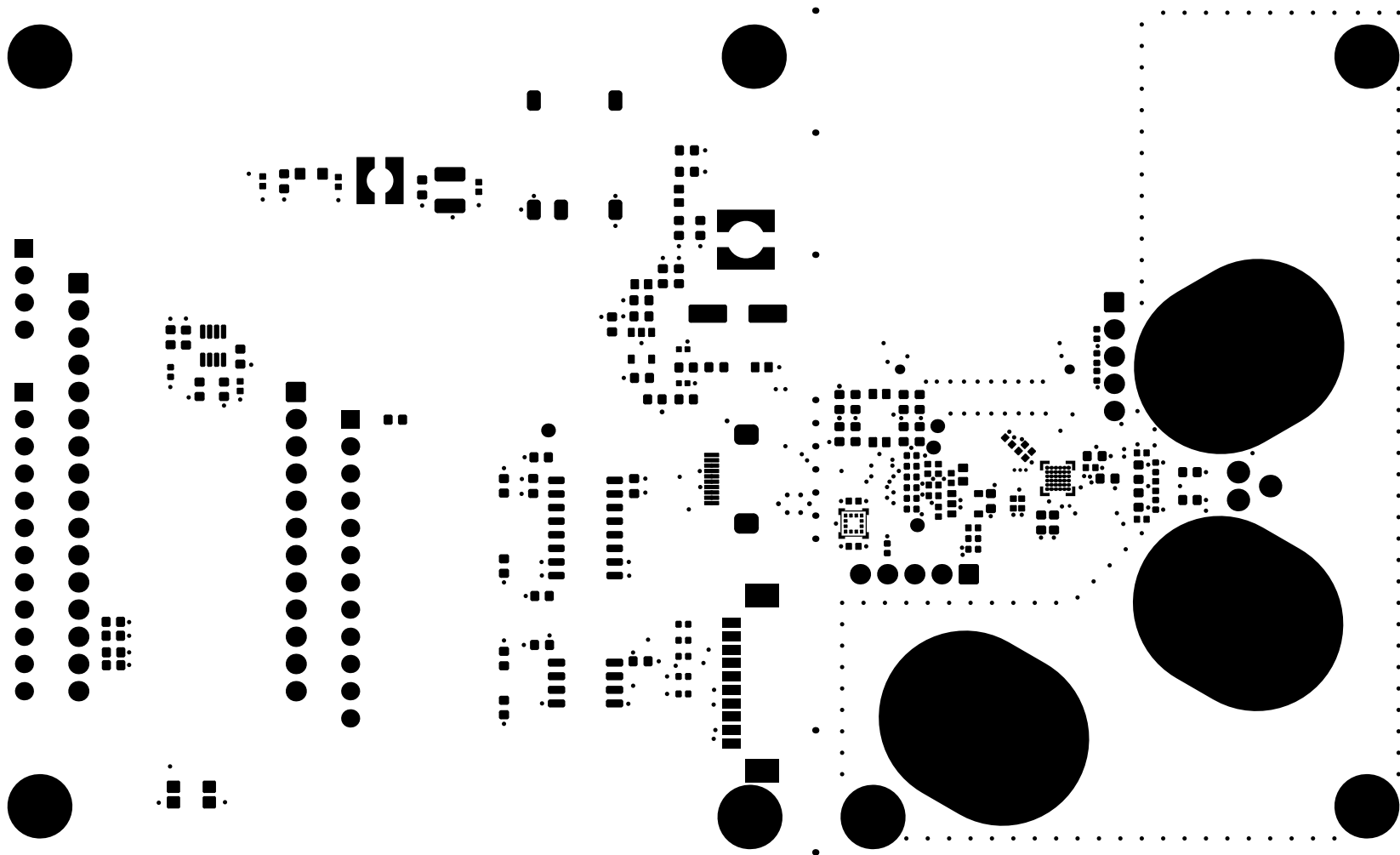
Rev.1.3.0

Controller_Board V7

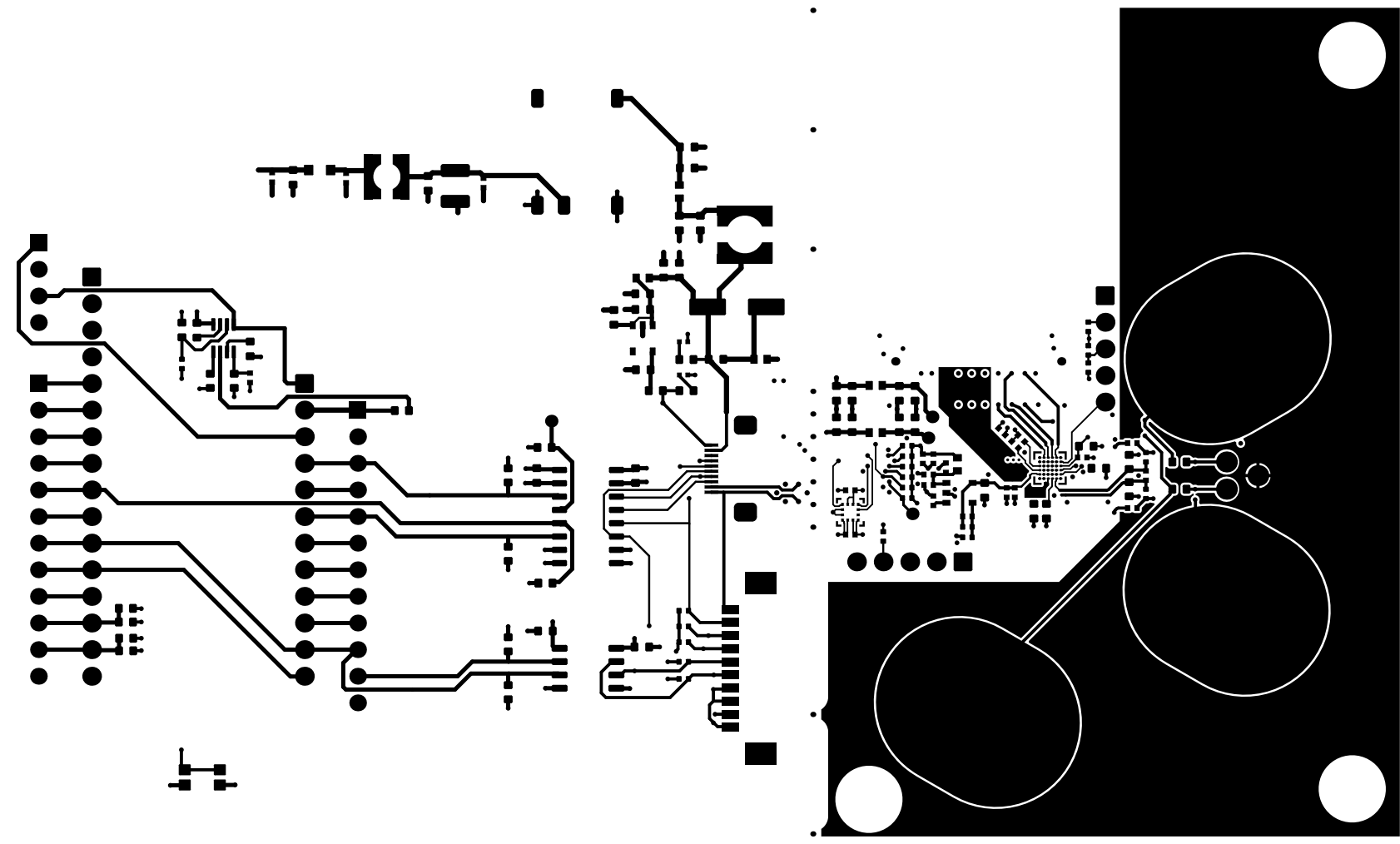


Top Paste

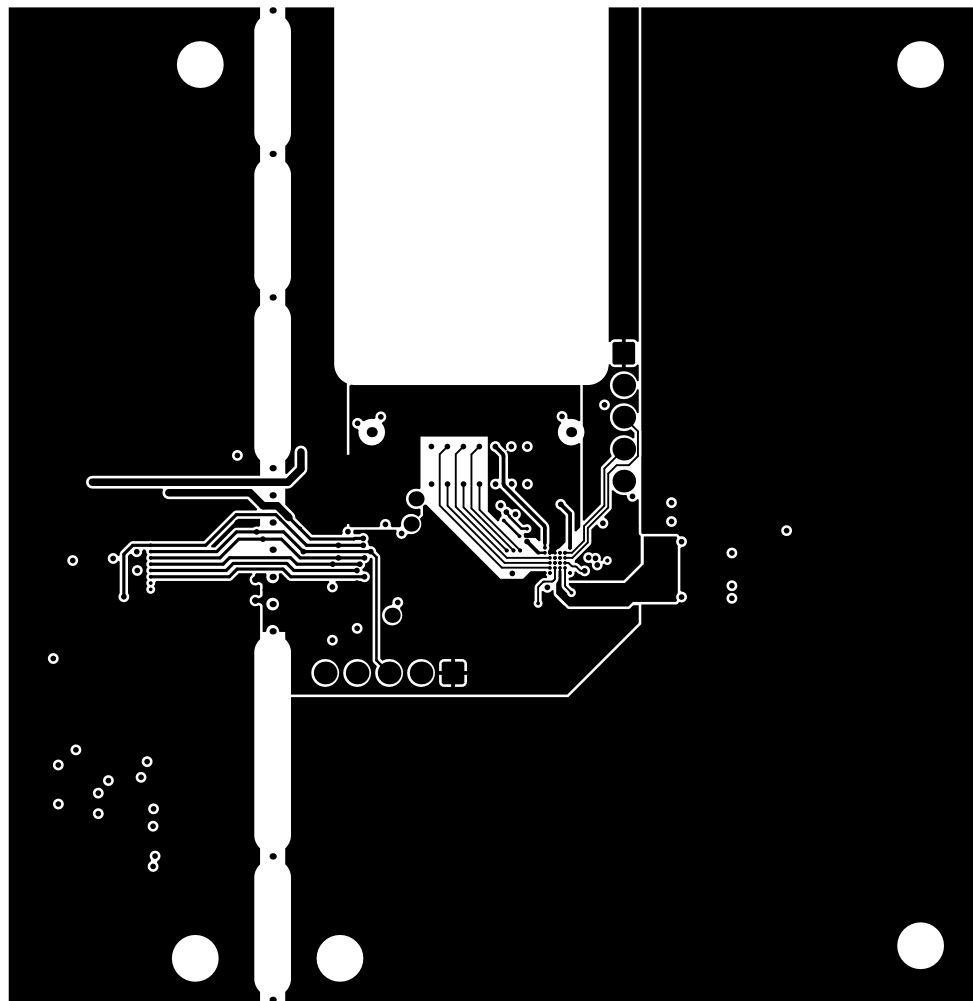
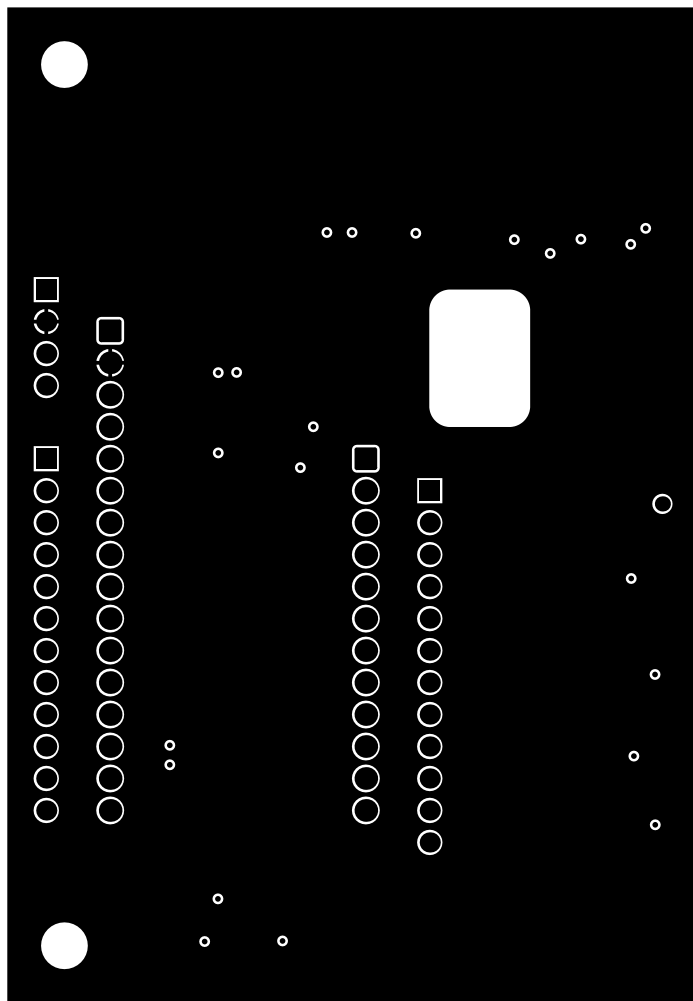
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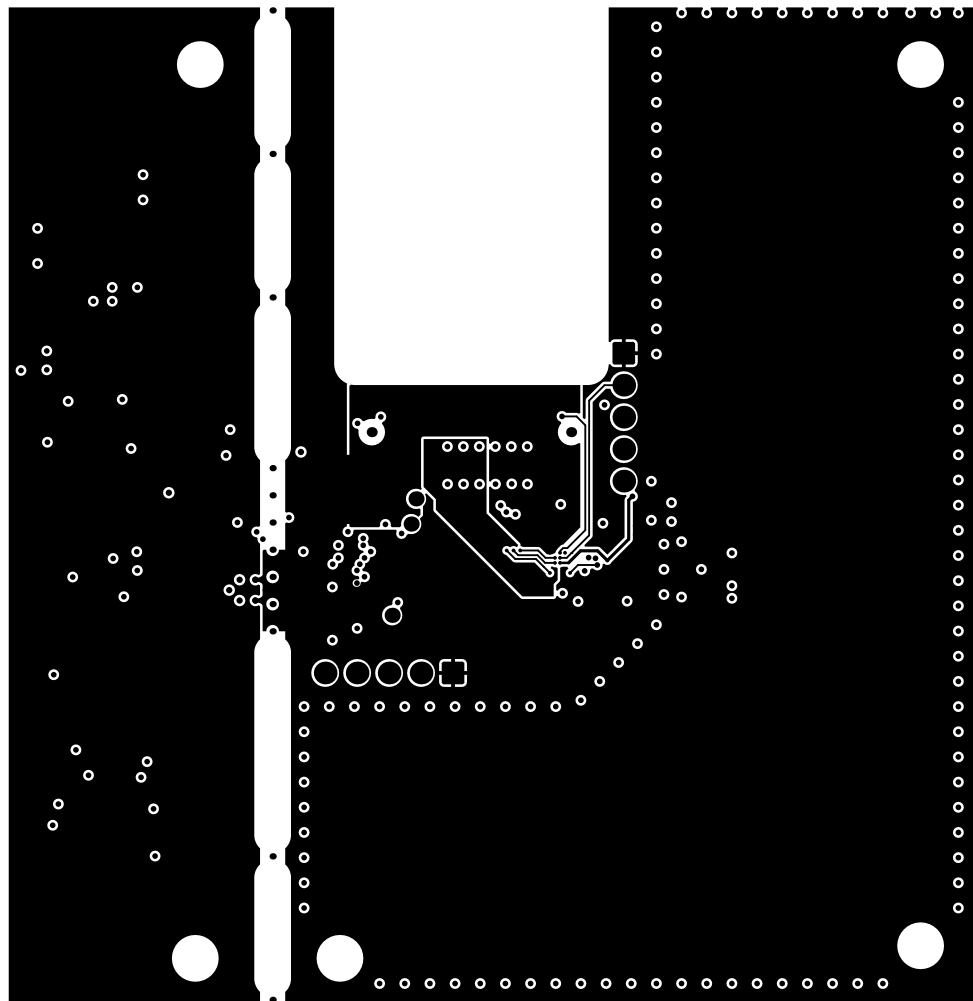
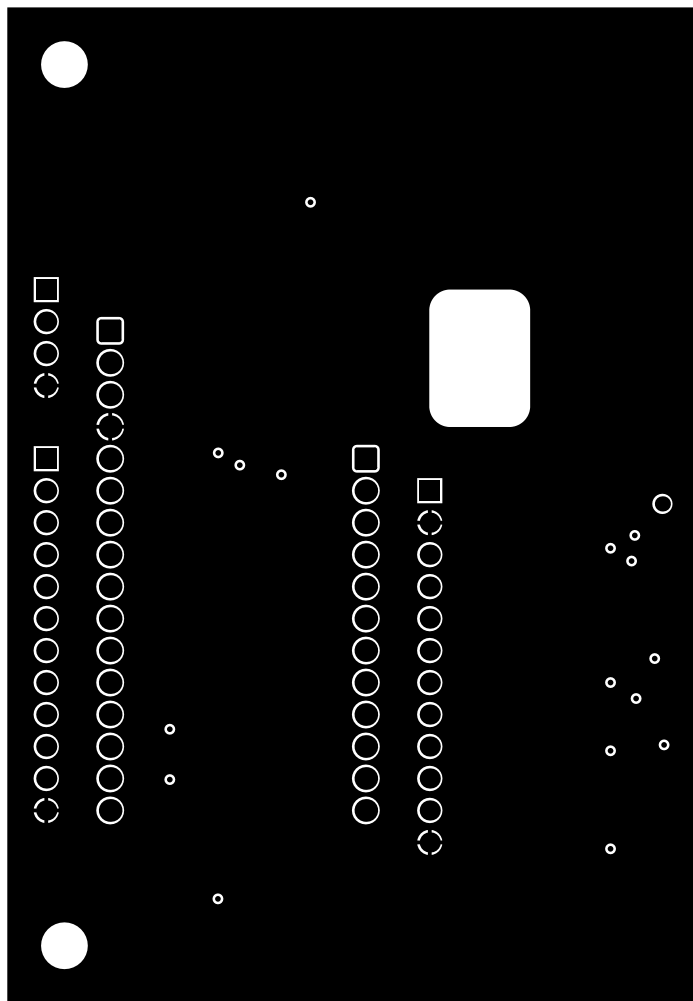


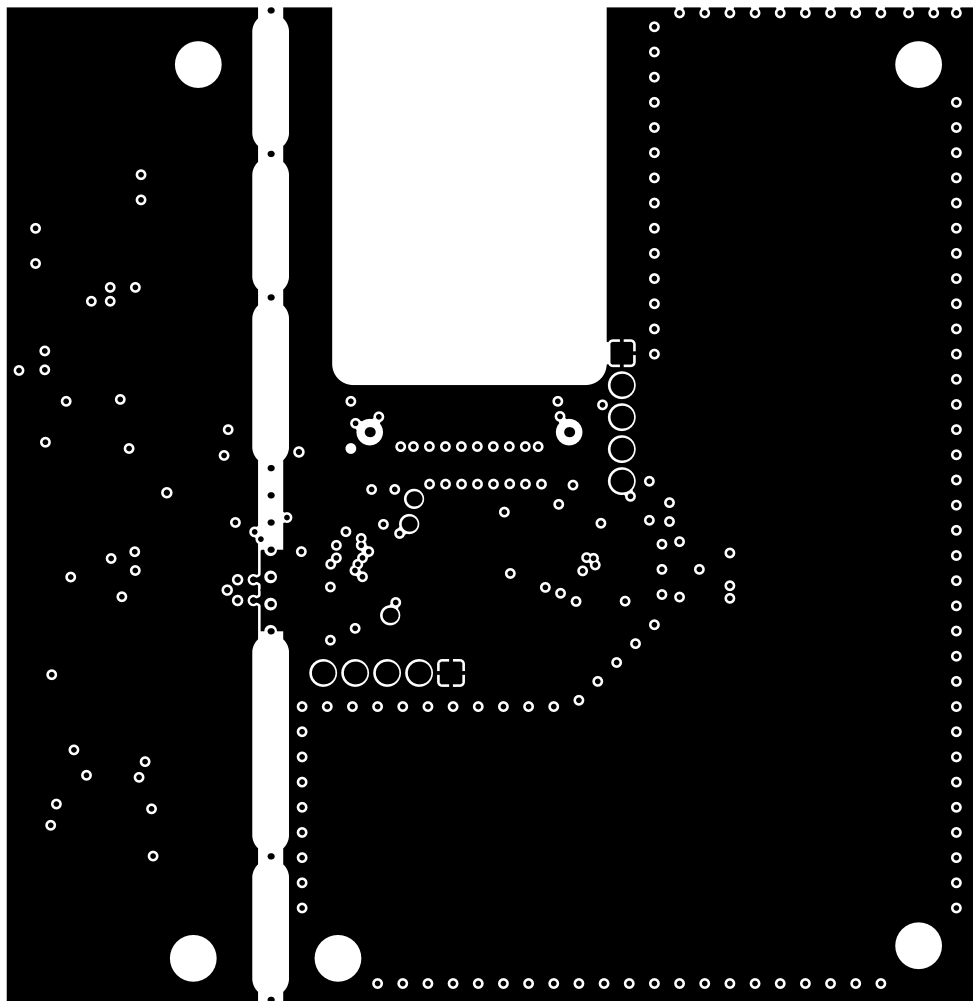
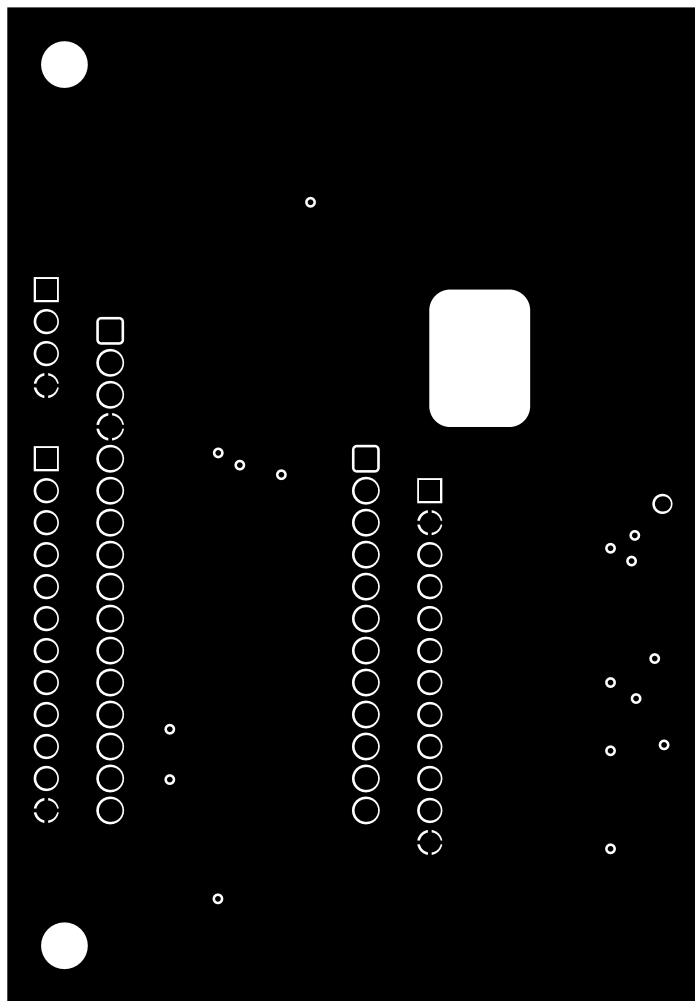
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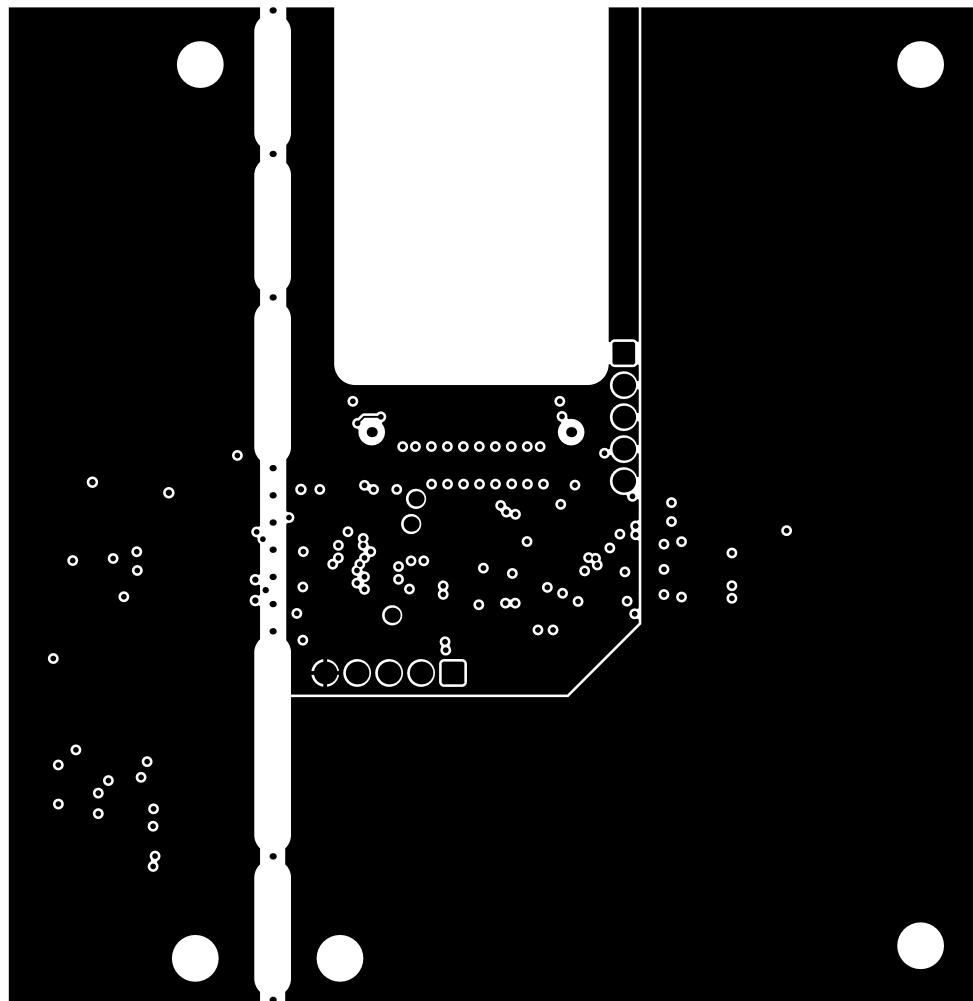
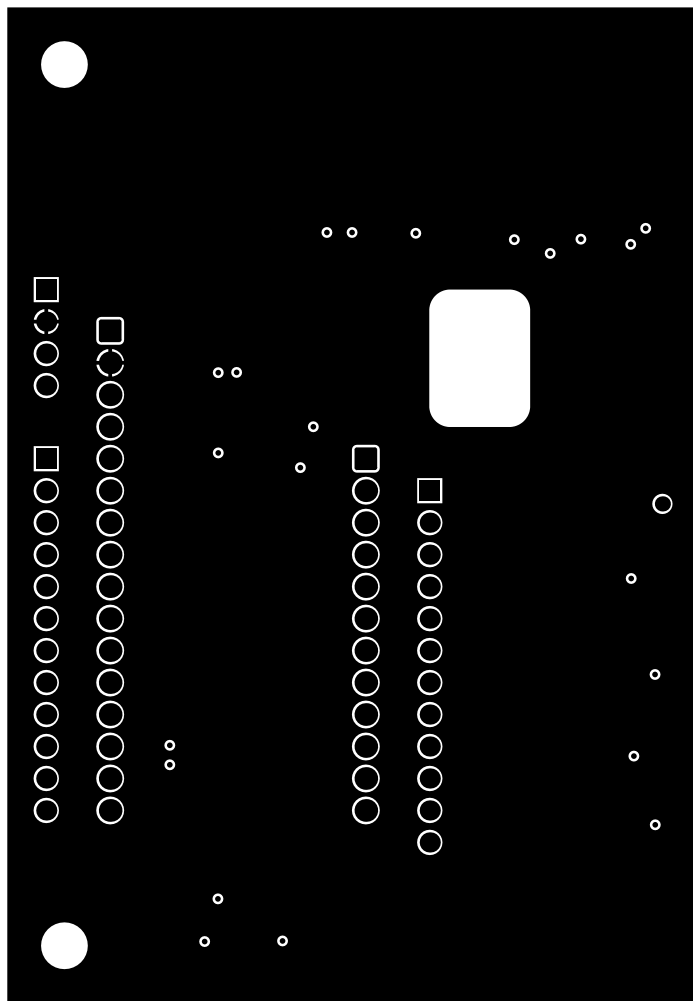


Inner 1

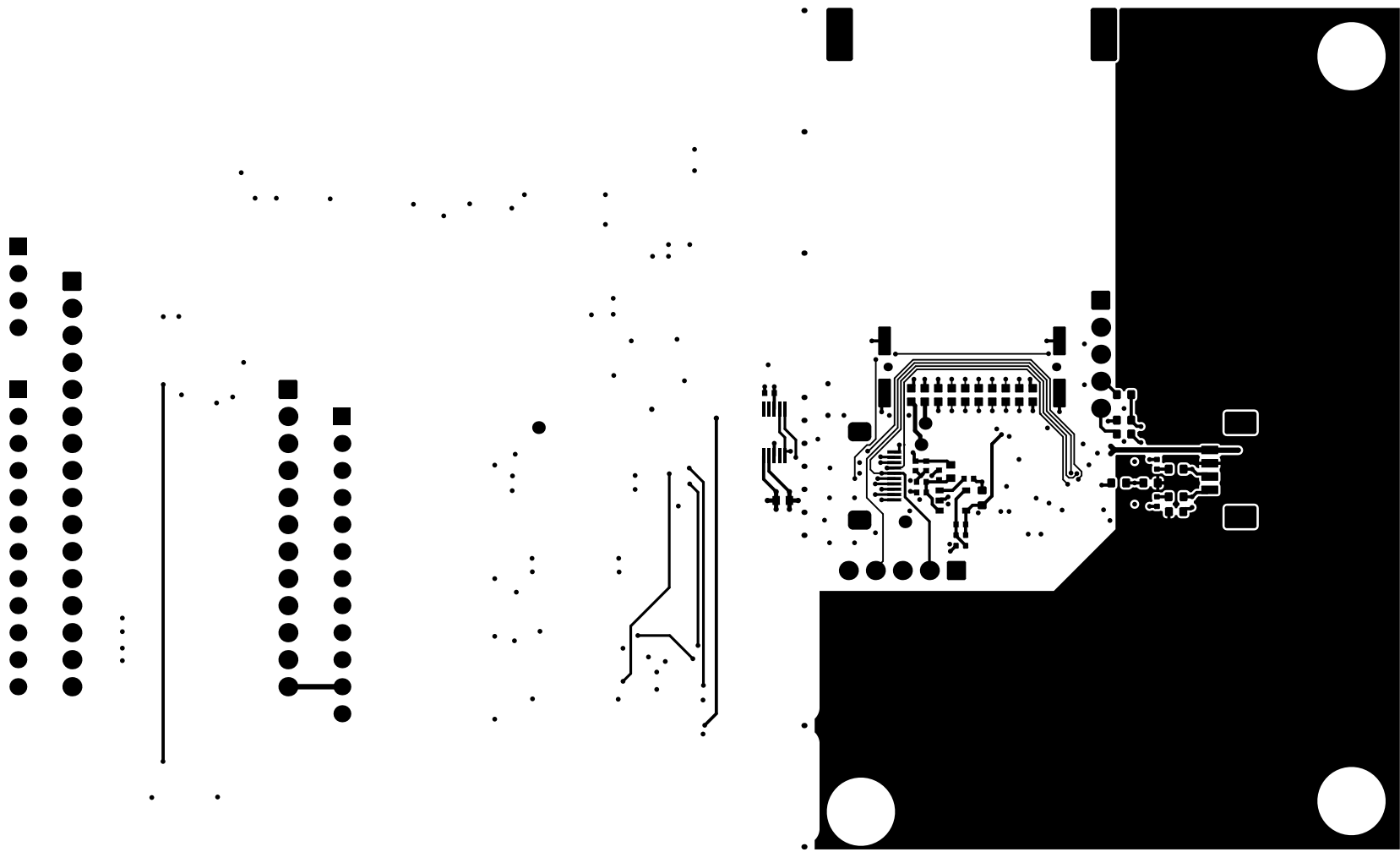




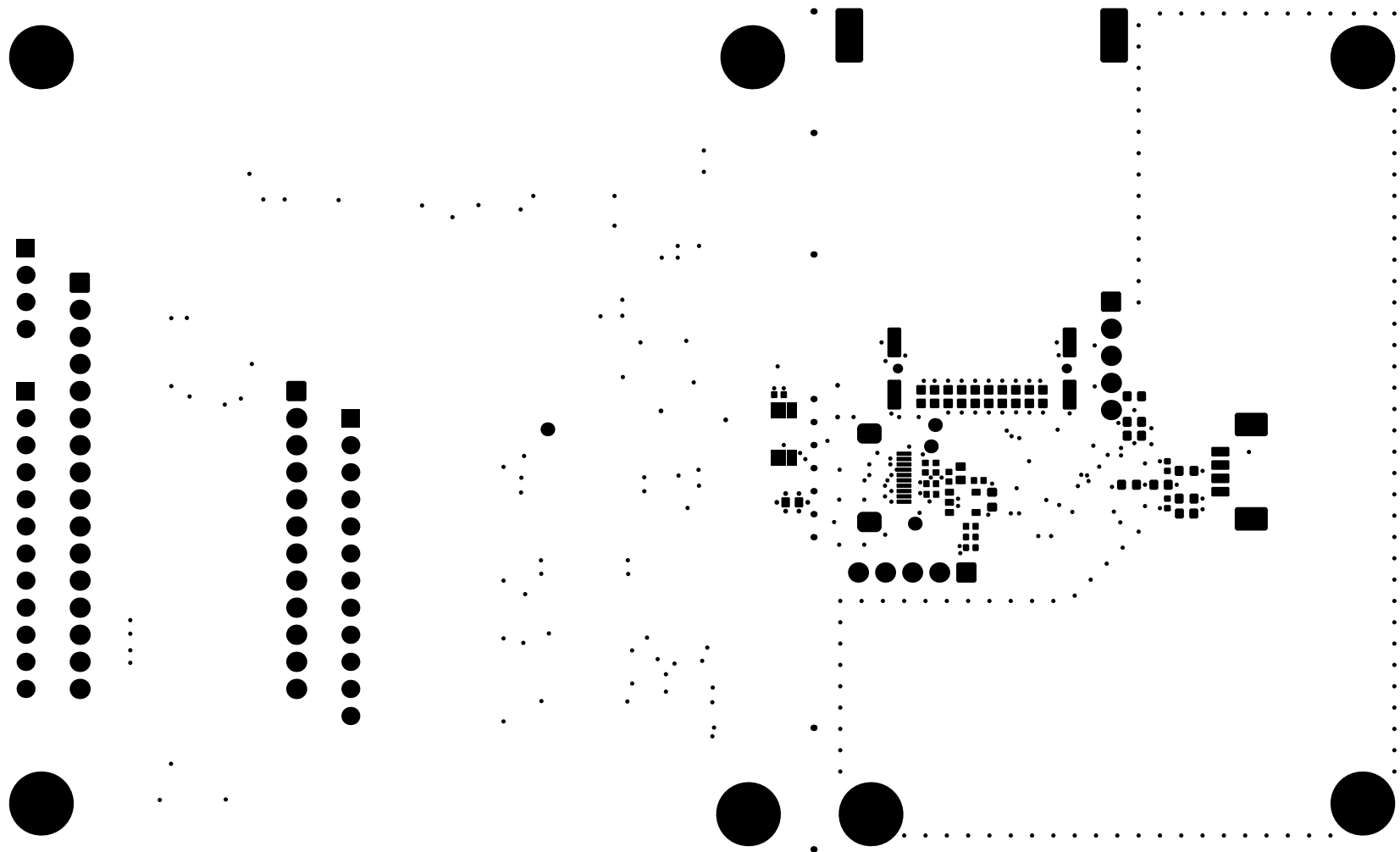




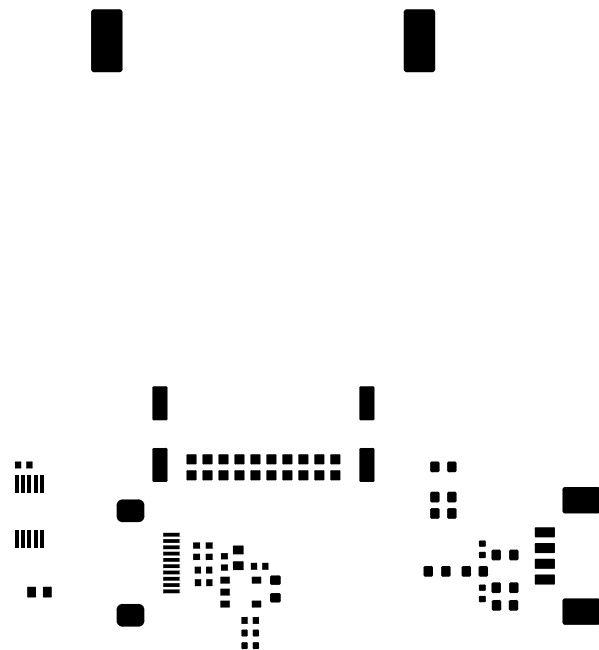
Bottom Layer



Bottom Solder

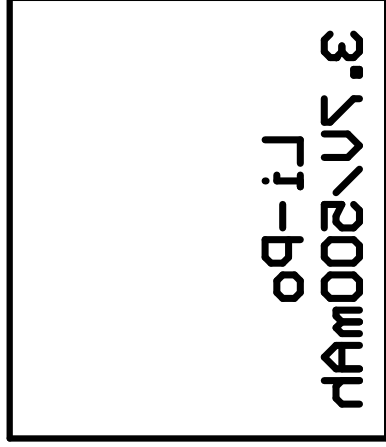


Bottom Paste



Bottom Overlay

002 f q
MKNE\FHAE 14\05\5051



1400
1
1

1300

1400
1
1

002 f q
MKNE\FHAE 14\05\5051

Board Outline

