REVISIONS			
REV	DESCRIPTION	DATE	APPROVED
A	NHR-067104	2/18/21	M.Looney

PURPOSE:

This document defines the requirements for the Printed Circuit Board used for the FALCON Coupon Board Assembly. This document includes layer drawings and fabrication notes to manufacture this PCB DOCUMENTATION: All Documentation referenced herein are the latest revision. All terms and definitions shall be noted in these documents. (IPC-6011; IPC-6012; IPC-600; IPC-TM-650) This drawing is CAD generated. No manual changes authorized after release.

DRAWING NOTES:

3.1 All printed circuit boards shall be manufactured in accordance with IPC-A 601 Class2, IPC-6011, IPC-6012.

3.2 All printed circuit boards shall be procured from a mutually agreed source.

3.3 Final Board Size: 47.10 X 44.12 mm +/- 0.127 mm

3.4 PCB Core Material: ISOLA 370HR or FR408 Tg (Please quote BT resin as an alternative to FR40)

3.5 Number of Metal Layers: 4

3.6 All vias shall be covered with solder mask.

3.7 All vias shall be plated to a wall thickness of 25 um, minimum Copper. Cross section of test coupon or actual panel required with each fabrication lot to verify plating thickness.

3.8 All vias shall be contained within the copper cover pad. No breakout is acceptable.

3.9 All finished trace widths shall be +/-10% of the design width at the bottom of the trace.

3.10 Minimum finished spacing shall be 80 um.

3.11 Layer to layer mis-registration shall be +/- 0.075 um

3.12 Copper Metal Layer Thickness:
External Layers: 35 - 50 um
Internal Layers: 18 um Typical

3.13 All exposed copper to be finished with .15-.55 um immersion silver over clean bare copper.

3.14 Solder Mask Material: SMOBC - LPI Taiyo- Green

3.15 Solder Mask Thickness: 15 - 35 um

3.16 Solder Mask shall be applied of clean bare copper (SMOBC).

3.17 Solder Mask shall cover all pads so that no metal is visible from the side.

3.18 Solder Mask shall show no evidence of peeling or separation from the plated metal, bare copper, or PCB material.

3.19 Solder Mask mis-registration shall be +/- 0.075 um. Solder mask may over lap through hole pads by 0.025 mm but shall not overlap SMT pads except by design. (Solder Mask Defined Pad).

3.20 Bow and twist shall not exceed 0.50% when measured diagonally, per IPC-TM-650.

3.21 Vendor shall add a label with their Name (Symbol), ADI Drawing Number, ADI Revision, Date Code and Fabrication Lot Number. This label shall be in the border of the array panel.

PCB Specification:

1) Pad Pitch Minimum: 1.000 mm
2) External Layer Trace Width: 0.203 mm
3) External Layer Trace Spacing: 0.203 mm
4) All Vias Same Size: Yes
5) Drilled Via Size/Count/Cover Pad Size: 0.66 mm/62/0.41 mm
6) Number of Non-Plated Holes: 4 each 2.300 mm

Gerber Layers/PCB Stackup Specification:
Layer; Gerber Name; Revision

1) Top Solder Paste Stencil; 08-067438-01-A-tps.art; Rev. A
2) Top Silkscreen; 08-067438-01-A-tsk.art; Rev. A
3) Top Soldermask; 08-067438-01-A-tms.art; Rev. A
4) Top Metal Layer 1; 08-067438-01-A-top.art; Rev. A
5) Bottom Metal Layer 2; 08-067438-01-A-bot.art; Rev. A
6) Bottom Solder Mask; 08-067438-01-A-bmk.art; Rev. A
7) Drill Drawing; 08-067438-01-A-drl.art; Rev. A

FAB DRAWING

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES DECIMALS FRACTIONS ANGLES .XX +-.010 +-1/32 +- 2 .XXX +-.005 .XXXX +-.0050	APPROVAL	DATE
	TEMPLATE ENGINEER X	ddMMMyy
	HARDWARE SERVICES X	ddMMMyy
	HARDWARE SYSTEMS X	ddMMMyy
MATERIAL	TEST ENGINEER X	ddMMMyy
	COMPONENT ENGINEER X	ddMMMyy
	TEST PROCESS X	ddMMMyy
	HARDWARE RELEASE X	ddMMMyy
FINISH	DESIGNER H. Goings	08APR21
	PTD ENGINEER A. Nolan	08APR21
	CHECKER X	ddMMMyy
DO NOT SCALE DWG		

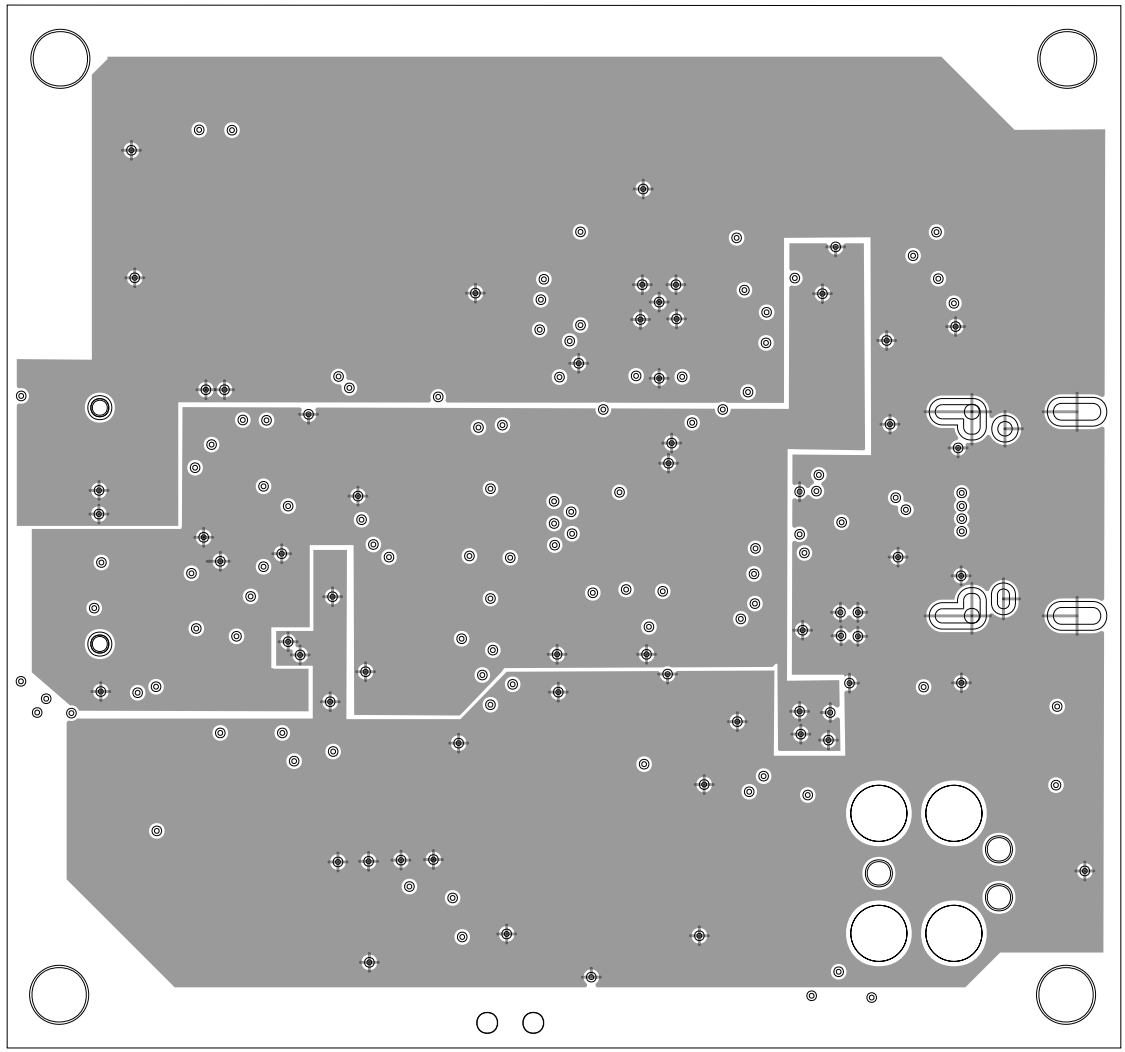
ANALOG DEVICES
WWM
GREENSBORO
7910 Triad Center Drive
Greensboro, NC 27409

TITLE
ADIS16607
iSENSOR SPI BUFFER

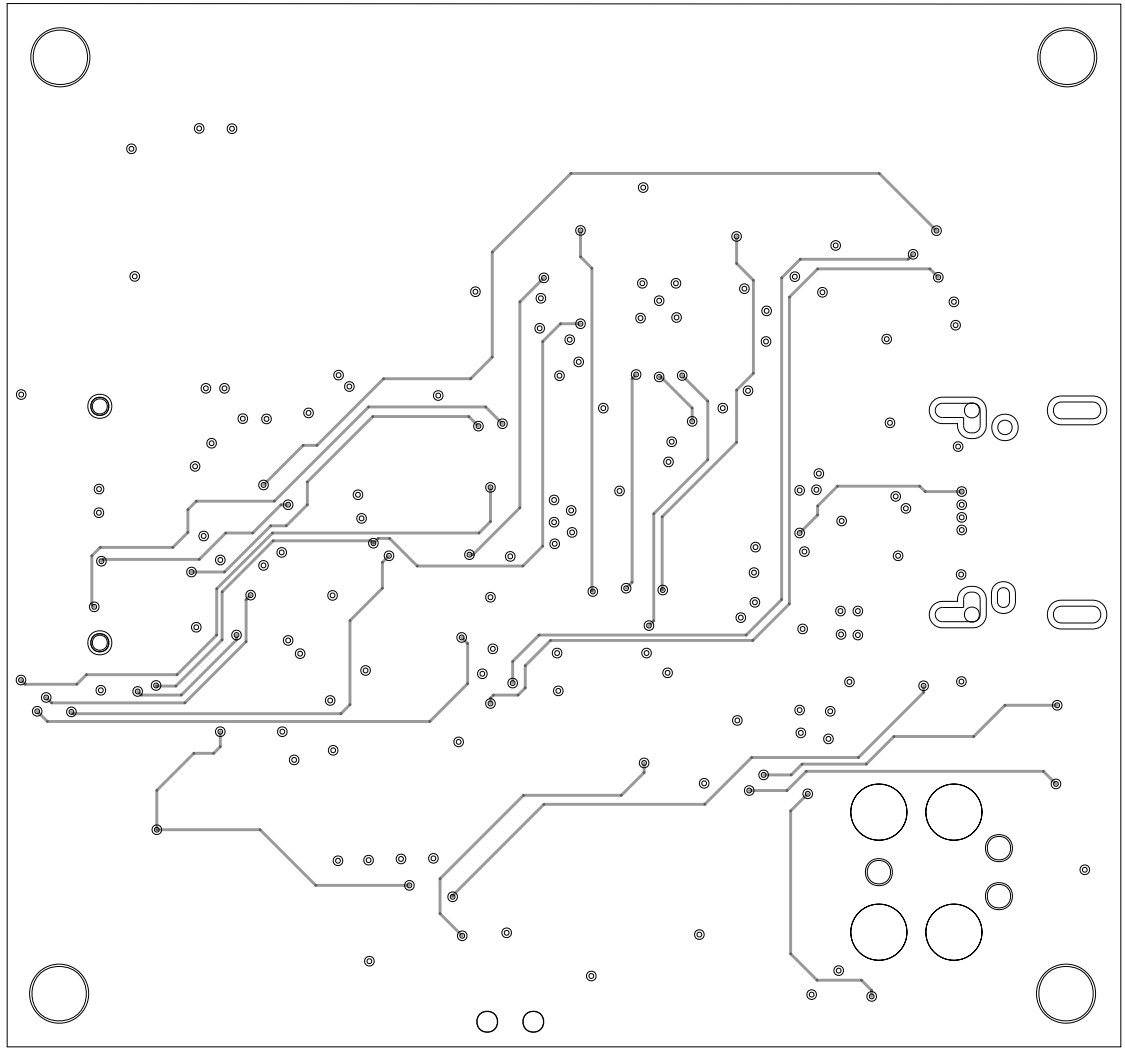
SIZE	FSCM NO	DRAWING NUMBER	REV
D	34031	09-067438-01	A

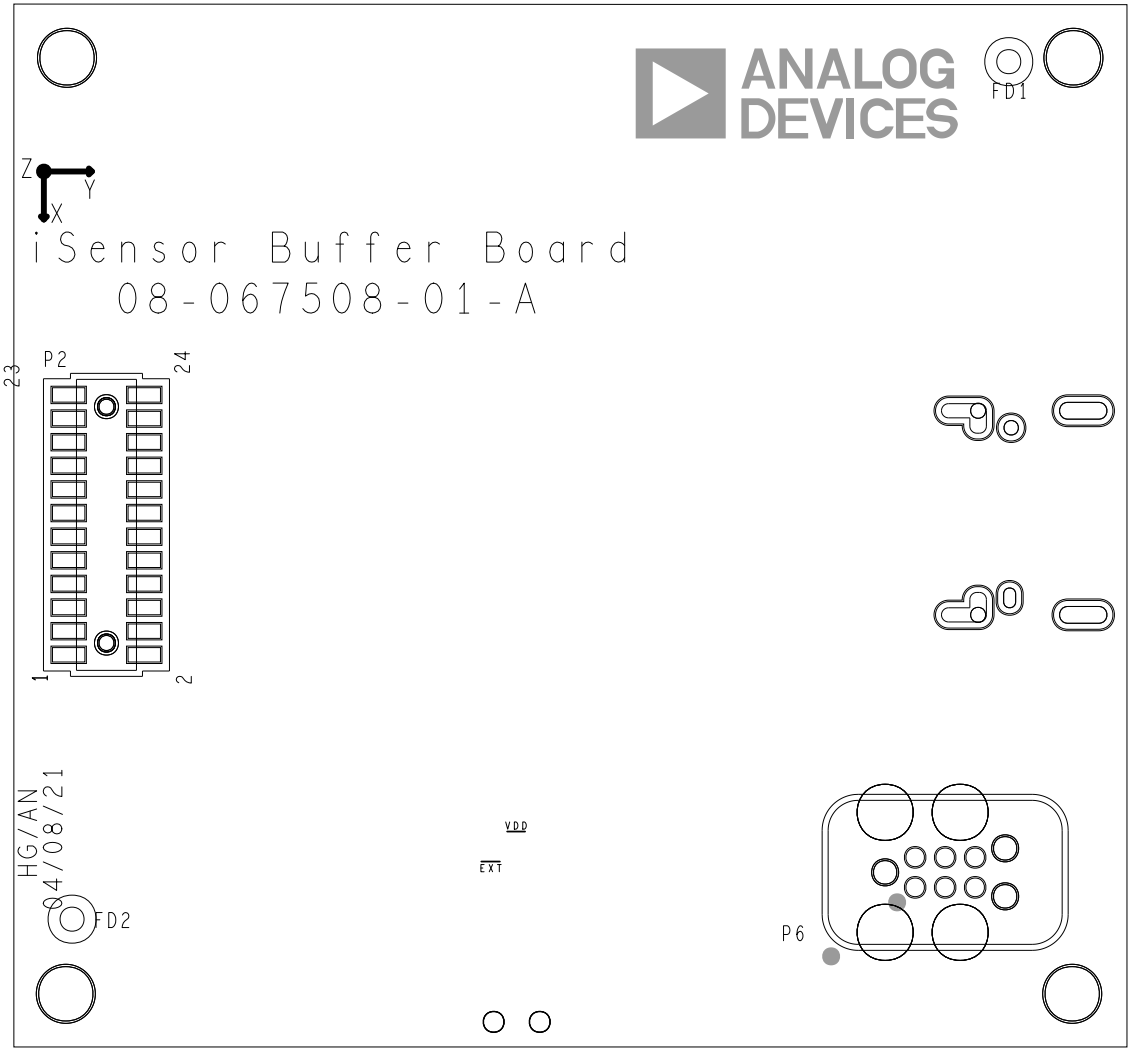
SCALE 1/1 SHEET 1 OF 8

Layer 2



Layer 3




ANALOG DEVICES
FD1
Z
Y
X
iSensor Buffer Board
08-067508-01-A
P2
23
24
1
2
HG/AN
04/08/21
FD2
VDD
EXT
P6

SD CARD ENTRY
MATE ENTRY
08-06750B-01-A
P1
P2
P3
P4
P5
P6
P7
P8
P9
J1
J2
U1
U2
U3
U4
Q1
L1
S1
Y1
C1
C2
C3
C4
C5
C6
C7
C8
C9
C10
C11
C12
C13
C14
C15
C16
C17
R1
R2
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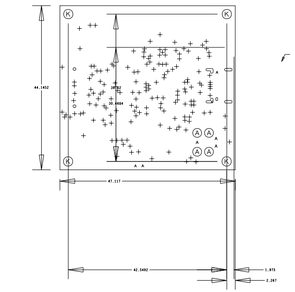
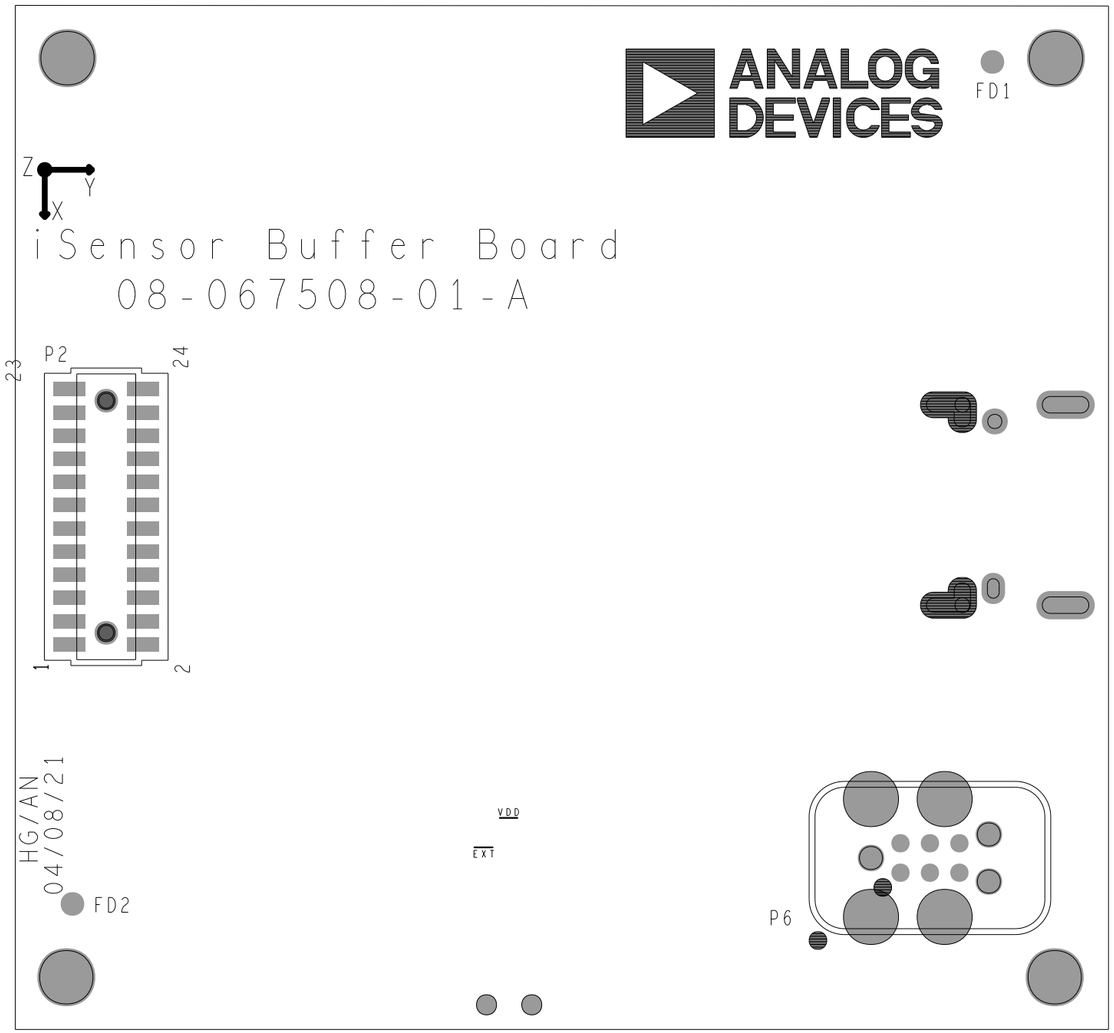
R13
R14
R15
R16
DS2
FD3
FD4



DRILL CHART: TOP to BOTTOM				
ALL UNITS ARE IN MILLIMETERS				
FIGURE	FINISHED_SIZE	ROTATION	PLATED	QTY
	0.254	-	PLATED	2
+	0.254	-	PLATED	166
▲	0.6096	-	PLATED	1
	0.635	-	PLATED	1
◆	0.635	-	PLATED	1
	0.635	-	NON-PLATED	2
○	0.762	-	NON-PLATED	2
▲	0.8636	-	NON-PLATED	2
▲	0.9906	-	NON-PLATED	3
Ⓚ	2.3	-	NON-PLATED	4
Ⓐ	2.375	-	NON-PLATED	4
◇	0.8382x0.508	90.000	PLATED	1
⬭	2.0066x0.7112	0.000	PLATED	2


ANALOG DEVICES
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VDD
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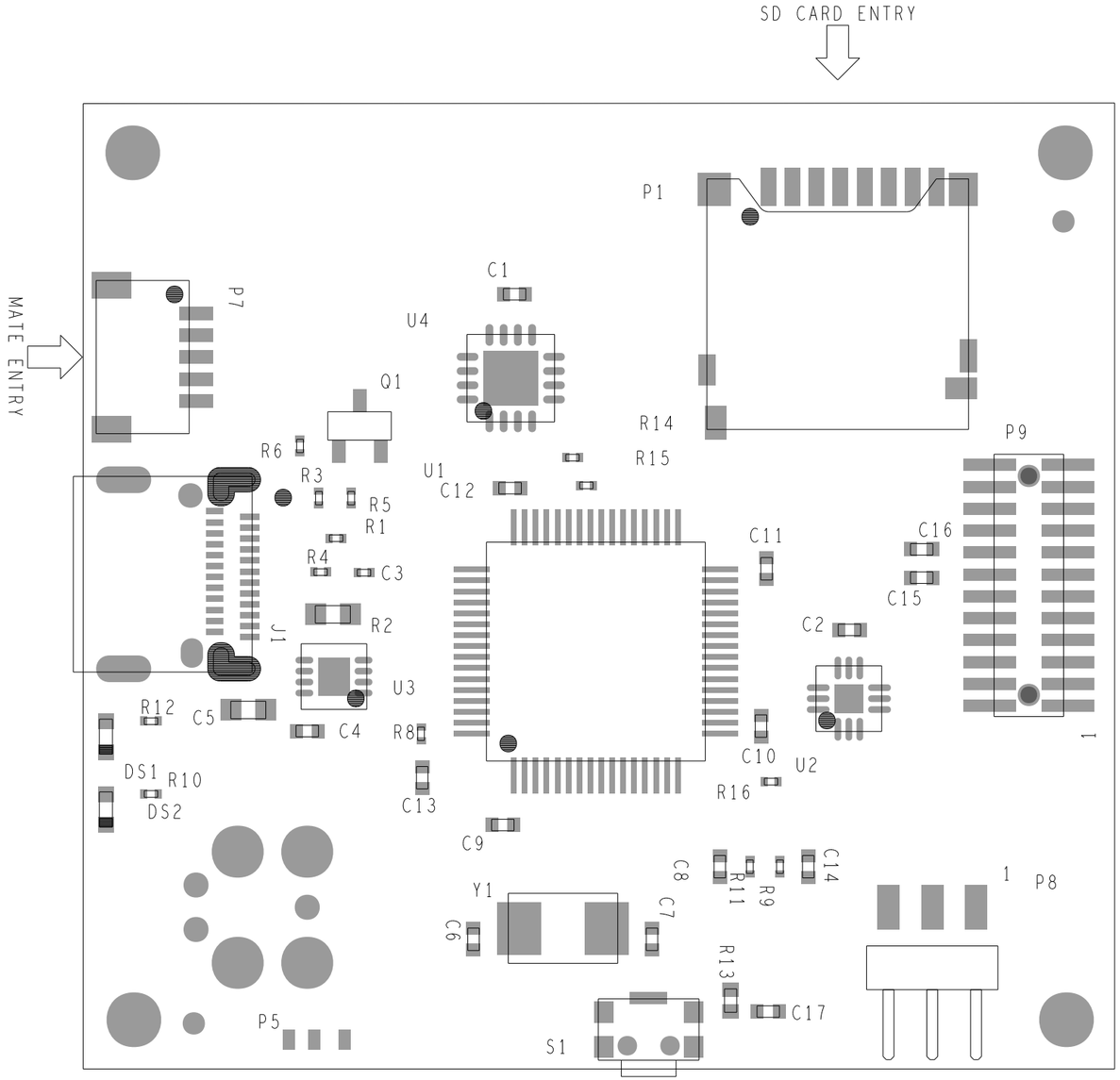
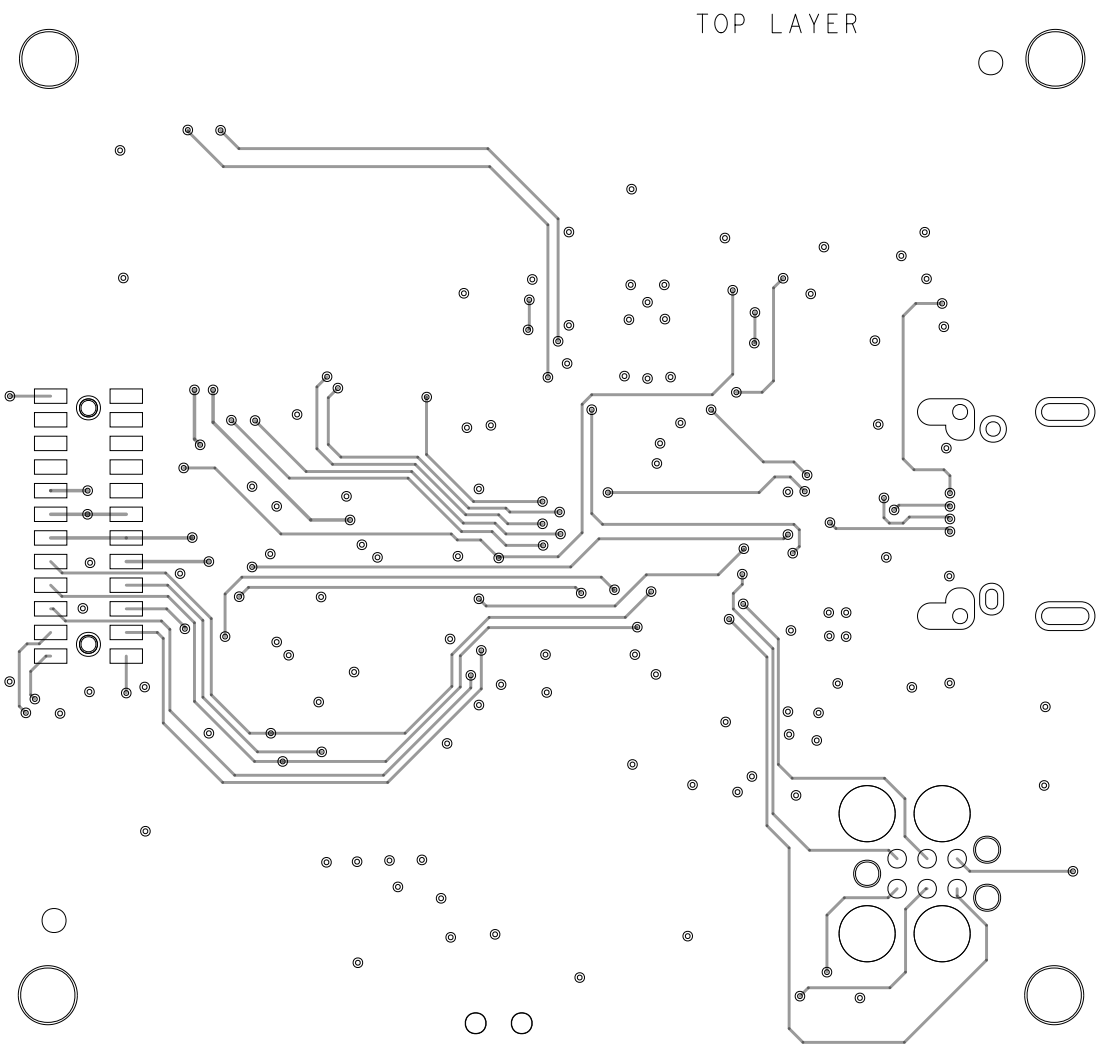
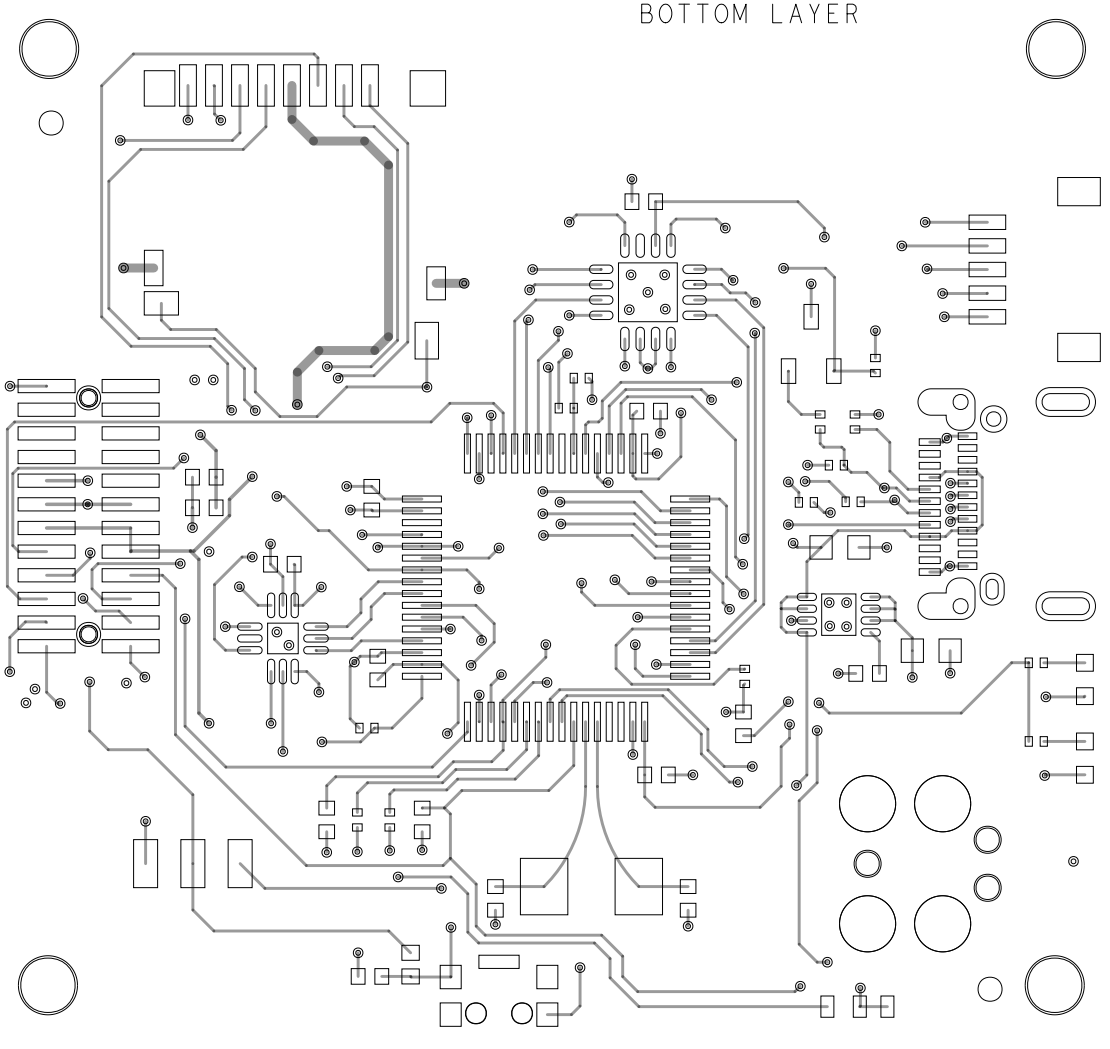
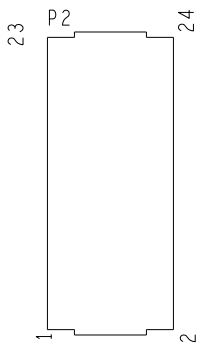

SD CARD ENTRY
MATE ENTRY
P1
P7
C1
U4
Q1
R14
R15
R6
R3
R5
U1
C12
R1
R4
C3
C11
C16
C15
P9
J1
R2
C2
U3
R12
C5
C4
R8
C10
U2
DS1
R10
DS2
C13
R16
C9
C14
C8
R11
R9
1
P8
Y1
C6
C7
R13
C17
P5
S1


TOP LAYER


BOTTOM LAYER

FD1

iSensor Buffer Board
08-067508-01-A

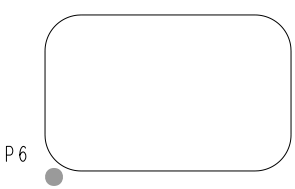


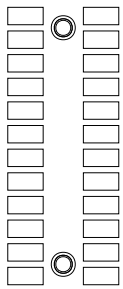
HG/AN
04/08/21

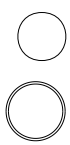
FD2

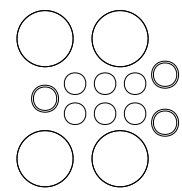
VDD

EXT









08-06750B-01-A
P1
FD3
C1
P7
U4
Q1
P9
R14
R15
R6
U1
C12
R3
R5
R1
C11
C16
R4
C3
C15
C2
R2
J1
U3
R12
C5
C4
R8
C10
U2
R16
C13
R10
DS2
C9
C14
P8
R9
C8
C7
Y1
R13
C17
S1
P5
FD4