

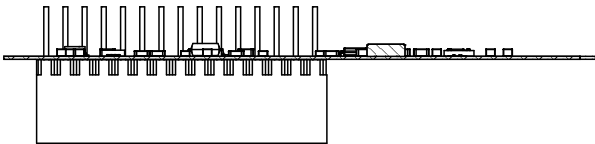
A

B

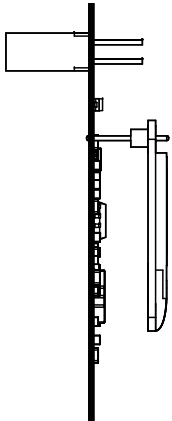
C

D

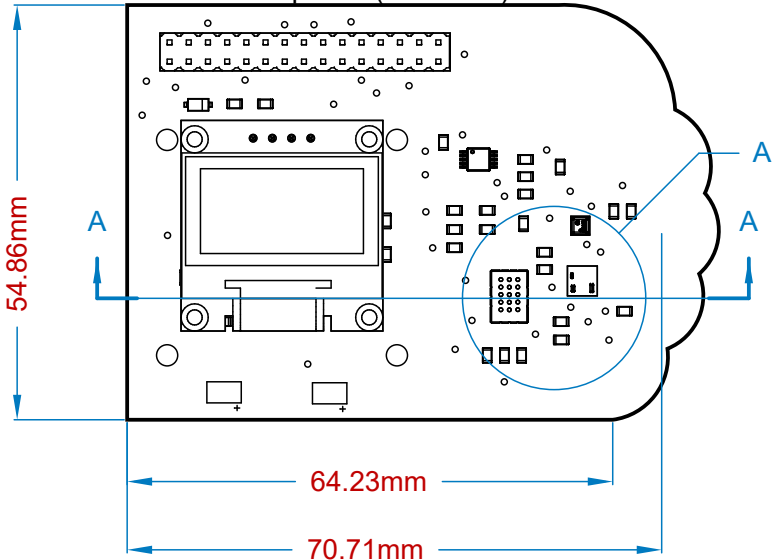
SECTION A-A (Scale 1:1)



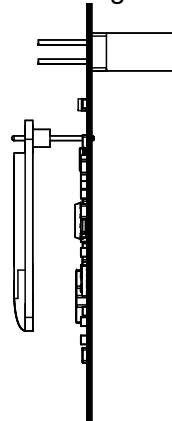
View from Left side (Scale 1:1)



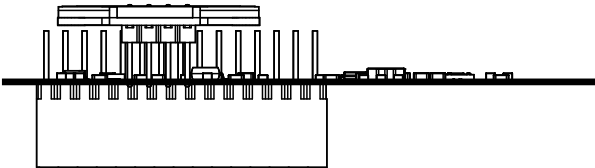
View from Top side (Scale 1:1)



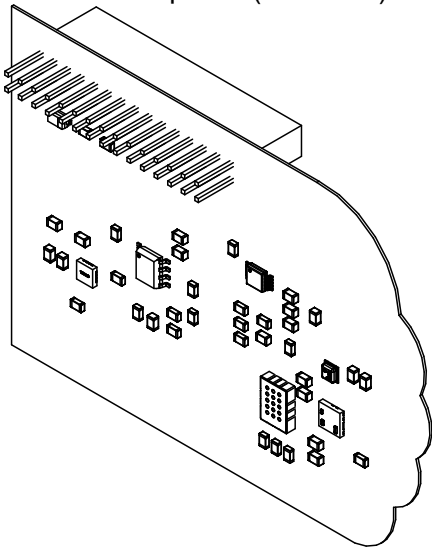
View from Right side (Scale 1:1)



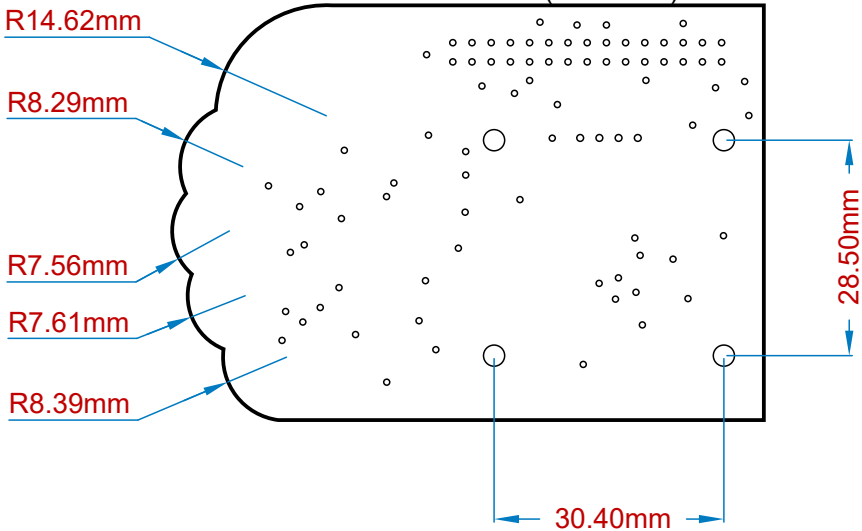
View from Front side (Scale 1:1)



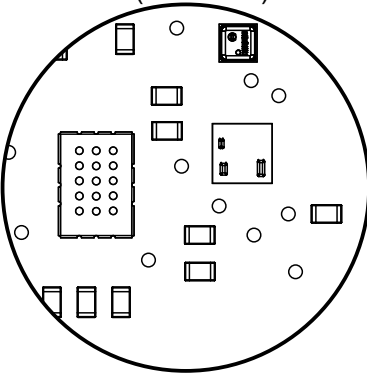
View from Top side (Scale 1:1)



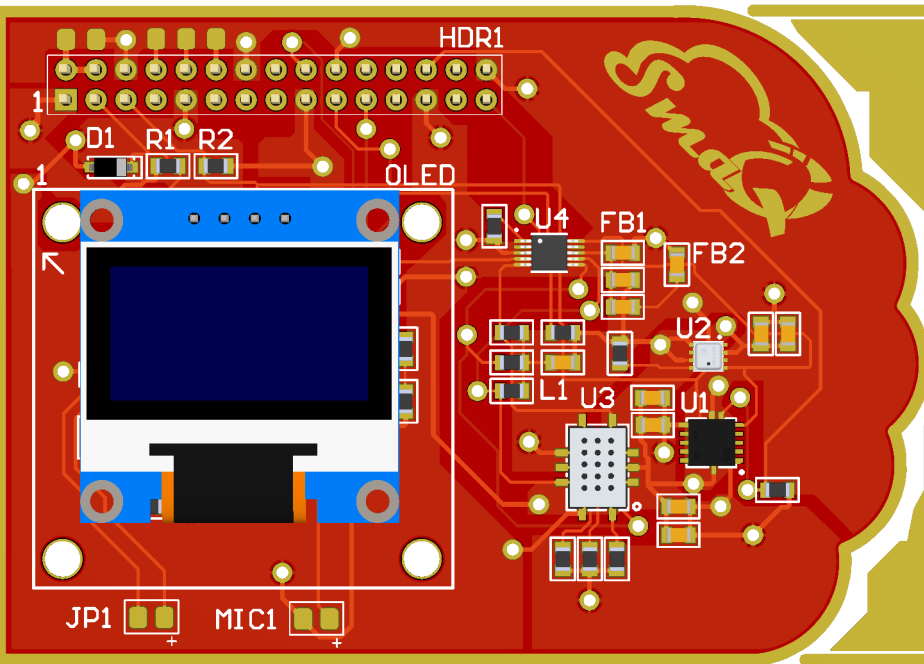
View from Bottom side (Scale 1:1)



DETAIL A (Scale 2:1)



Realistic View



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		UNLESS OTHERWISE SPECIFIED:		NAME	DATE	SMAQ -Smart Monitoring of Air Quality			
		DIMENSIONS ARE IN MM TOLERANCES: 0.01 MM FRACTIONAL± ANGULAR: MACH± BEND ± TWO PLACE DECIMAL ± THREE PLACE DECIMAL ±	DRAWN	C. A.	25/03/2020	TITLE <i>SMAQ - Assembly Views</i>			
			CHECKED	C. A.	25/03/2020				
			ENG APPR.	TEAM 7	26/03/2020				
			MFG APPR.	TEAM 7	26/03/2020				
		INTERPRET GEOMETRIC TOLERANCING PER:	Q.A.	TEAM 7	26/03/2020				
		MATERIAL	COMMENTS:			SIZE DWG. NO. B ASSYVW-1			
		FR-4 BOARD							
NEXT ASSY	USED ON	FINISH Electroless Tinning							
APPLICATION		DO NOT SCALE DRAWING				SCALE:	1:1	WEIGHT: N.M.	SHEET 1 OF 5

A

B

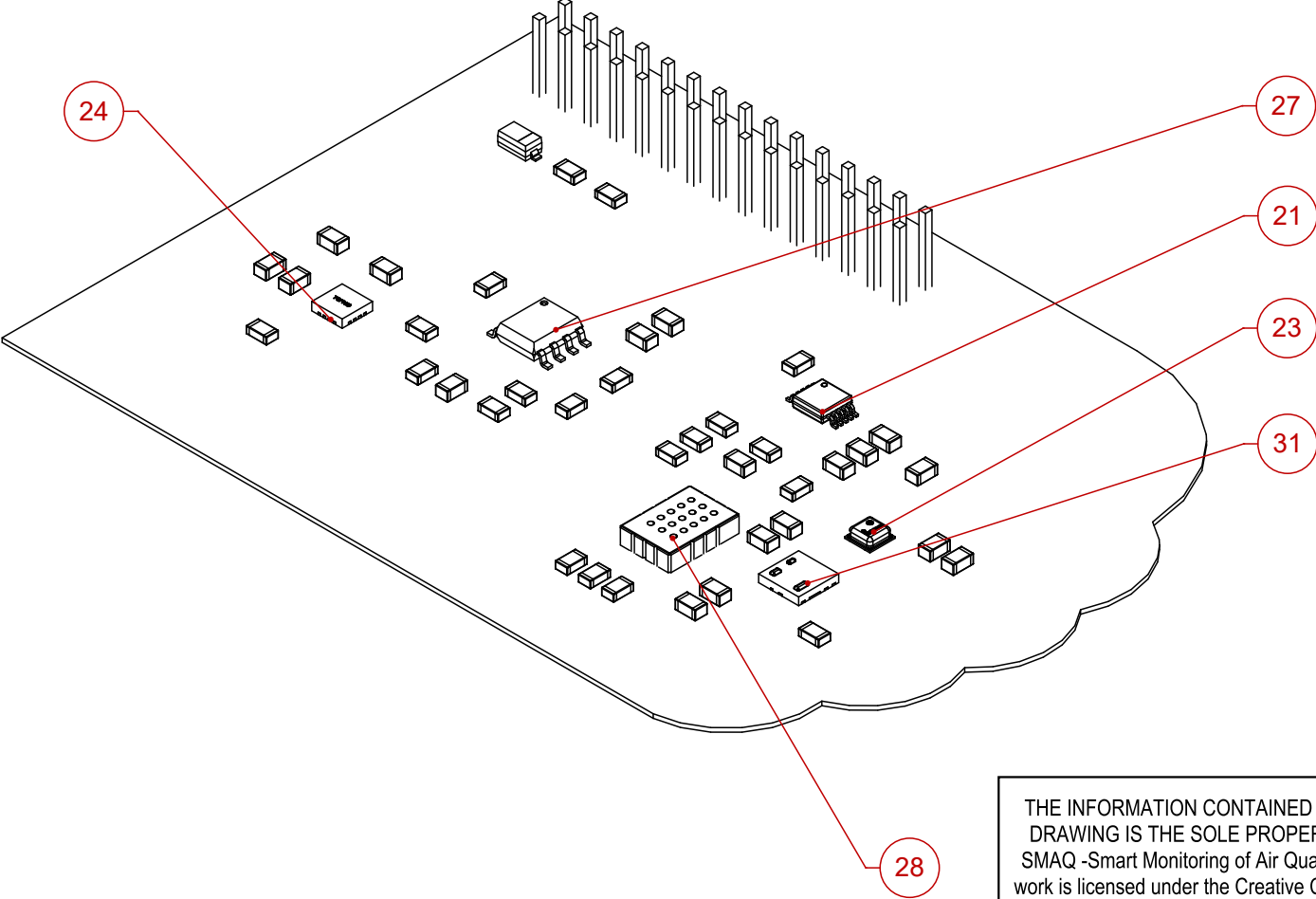
C

D

Layer Stack Legend

Material	Layer	Thickness	Dielectric Material	Type	Gerber
	Top Overlay			Legend	GTO
Surface Material	Top Solder	0.01mm	Solder Resist	Solder Mask	GTS
Copper	Top Layer	0.04mm		Signal	GTL
		0.32mm	FR-4	Dielectric	
Copper	Bottom Layer	0.04mm		Signal	GBL
Surface Material	Bottom Solder	0.01mm	Solder Resist	Solder Mask	GBS
	Bottom Overlay			Legend	GBO
Total thickness: 0.41mm					

View from Front side (Scale 2:1)



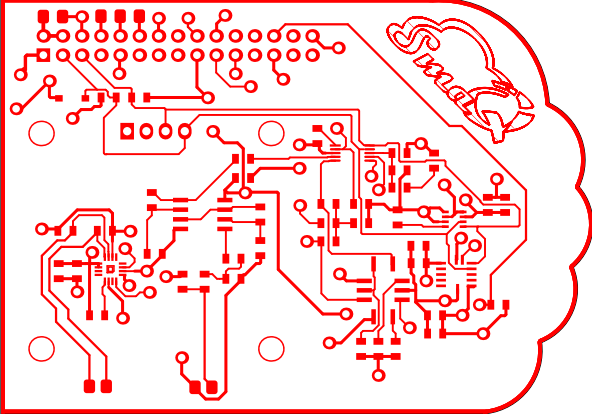
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Bill Of Materials

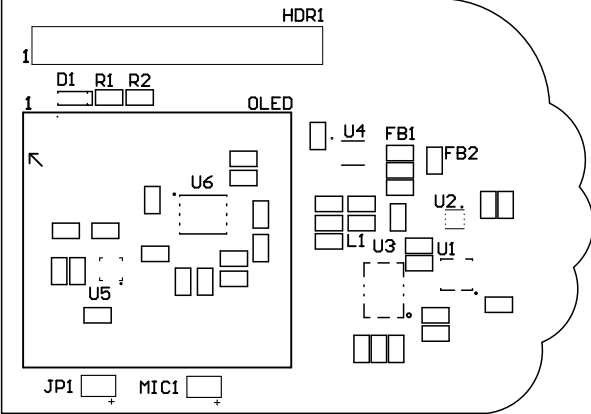
Line #	Designator	Name	Quantity
1	R15	0 Ohm	1
2	C2, C4, C5, C6, C7, C9, C10	0.1uF / 50V	7
3	C12	0.22uF	1
4	R13, R16	1k	2
5	C8, C13	1uF / 50V	2
6	L1	1uH 800mA	1
7	HDR1	2x20 GPIO F HDR	1
8	R1, R2	2.74k	2
9	MIC1	3.0 Vdc	1
10	D1	3.6V 0.5W	1
11	R3, R4, R6, R11, R14, R17, R18	10k 1%	7
12	C3, C11	10uF 16V	2
13	R10	16R9	1
14	C1	22uF	1
15	R7, R8, R9	56k	3
16	R12	84R5	1
17	R19, R20	100k	2
18	R21, R22, R23	220 Ohm	3
19	C14, C15	220pF	2
20	R5	536R	1
21	U4	ADS1115 16Bit	1
22	D4	BLUE	1
23	U2	BME-280	1
24	U5	CLASS D AMP	1
25	FB1, FB2	Ferrite Bead 1.5k 500mA	2
26	D3	GREEN	1
27	U6	LM358	1
28	U3	MICS-6814	1
29	D2	RED	1
30	JP1	Speaker Jumper	1
31	U1	VCNL-4010	1

		UNLESS OTHERWISE SPECIFIED:		NAME	DATE	SMAQ -Smart Monitoring of Air Quality		
		DIMENSIONS ARE IN MM		DRAWN	C. A.	25/03/2020	TITLE	
		TOLERANCES: 0.01 MM		CHECKED	C. A.	25/03/2020		
		FRACTIONAL±		ENG APPR.	TEAM 7	26/03/2020		
		ANGULAR: MACH± BEND ±		MFG APPR.	TEAM 7	26/03/2020		
		TWO PLACE DECIMAL ±		Q.A.	TEAM 7	26/03/2020		
		THREE PLACE DECIMAL ±		COMMENTS:			SMAQ - BOM and Layer Stack	
		INTERPRET GEOMETRIC TOLERANCING PER:						
		MATERIAL						
		FR-4 BOARD					SIZE	DWG. NO.
		FINISH					B	BOMLYR-1
		Electroless Tinning						
NEXT ASSY	USED ON	DO NOT SCALE DRAWING					SCALE: 1:1	WEIGHT: N.M.
APPLICATION								SHEET 2 OF 5

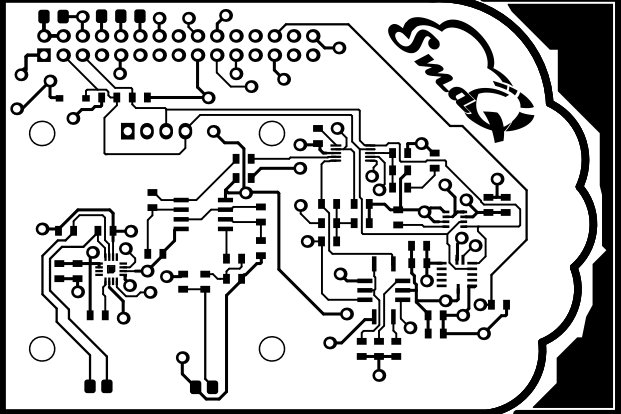
Top Layer (Scale 1:1)



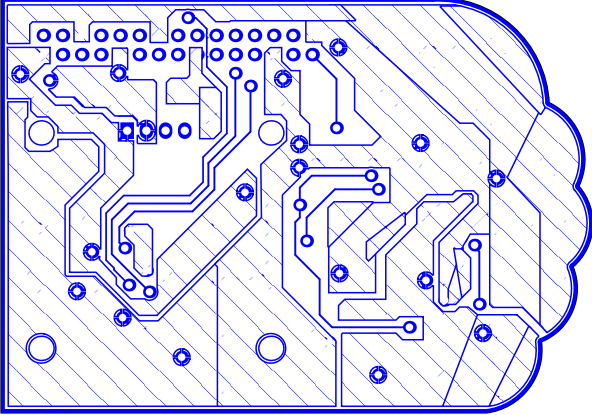
Top Overlay (Scale 1:1)



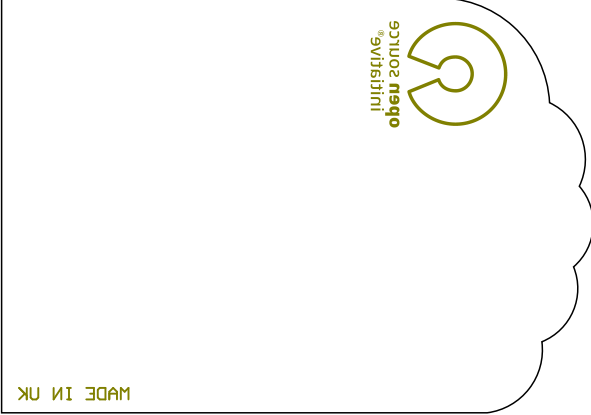
Top Layer (Scale 1:1)



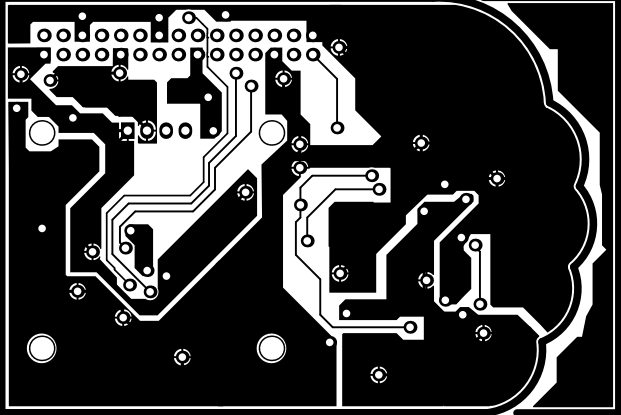
Bottom Layer (Scale 1:1)



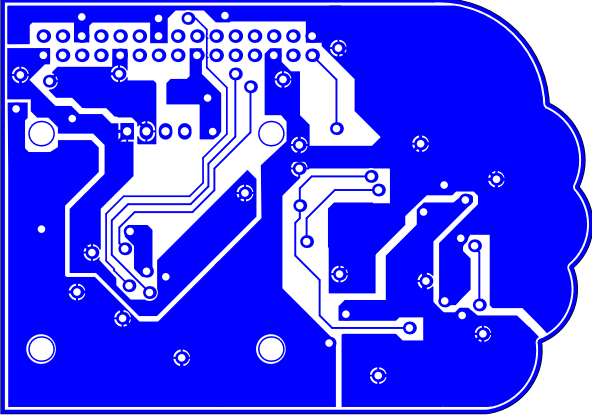
Bottom Overlay (Scale 1:1)



Bottom Layer (Scale 1:1)



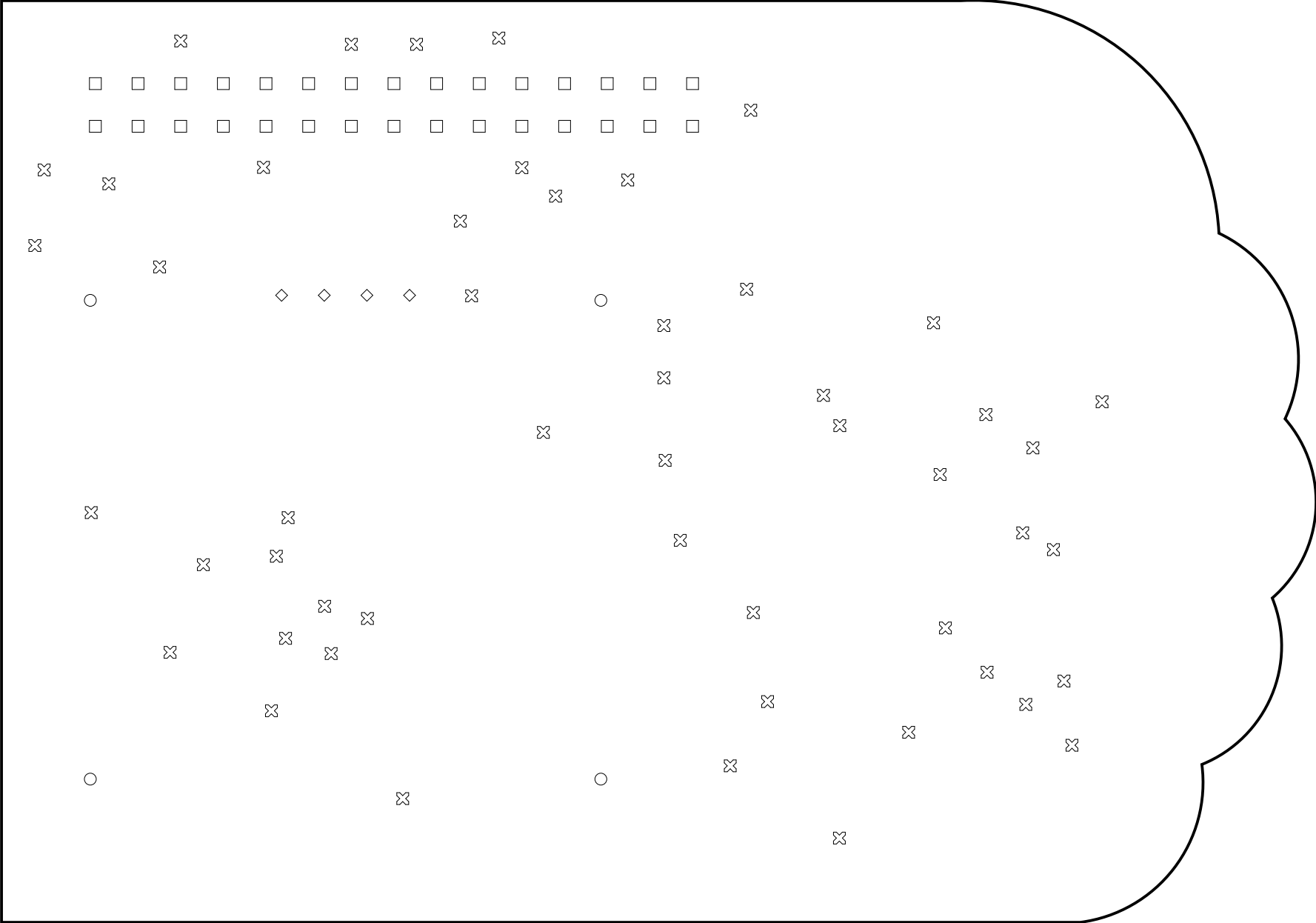
Bottom Layer (Scale 1:1)



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		DIMENSIONS ARE IN MM TOLERANCES: 0.01 MM FRACTIONAL± ANGULAR: MACH± BEND ± TWO PLACE DECIMAL ± THREE PLACE DECIMAL ±	DRAWN	C. A.	25/03/2020	TITLE <i>SMAQ - Fabrication Views</i>			
			CHECKED	C. A.	25/03/2020				
			ENG APPR.	TEAM 7	26/03/2020				
			MFG APPR.	TEAM 7	26/03/2020				
		INTERPRET GEOMETRIC TOLERANCING PER:	Q.A.	TEAM 7	26/03/2020				
		MATERIAL	COMMENTS:			SIZE	DWG. NO.		
		FR-4 BOARD				B	FBRVW-1		
NEXT ASSY	USED ON	FINISH Electroless Tinning				SCALE:	1:1	WEIGHT: N.M.	SHEET 3 OF 5
APPLICATION		DO NOT SCALE DRAWING							

Drill Drawing View (Scale 3:1)



Drill Table

Symbol	Count	Hole Size	Plated	Drill Layer Pair	Via / Pad	Hole Tolerance
⌘	51	1.00mm	Plated	Top Layer - Bottom Layer	Via	None
□	30	1.02mm	Plated	Top Layer - Bottom Layer	Pad	None
◇	4	1.10mm	Plated	Top Layer - Bottom Layer	Pad	None
○	4	3.00mm	Non-Plated	Top Layer - Bottom Layer	Pad	None
89 Total						

1

1

2

2

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		UNLESS OTHERWISE SPECIFIED:		NAME	DATE	SMAQ -Smart Monitoring of Air Quality		
		DIMENSIONS ARE IN MM	DRAWN	C. A.	25/03/2020	TITLE SMAQ - Drill Guide		
		TOLERANCES: 0.01 MM	CHECKED	C. A.	25/03/2020			
		FRACTIONAL±	ENG APPR.	TEAM 7	26/03/2020			
		ANGULAR: MACH± BEND ±	MFG APPR.	TEAM 7	26/03/2020			
		TWO PLACE DECIMAL ±	Q.A.	TEAM 7	26/03/2020			
		THREE PLACE DECIMAL ±	COMMENTS:			SIZE	DWG. NO.	
		INTERPRET GEOMETRIC TOLERANCING PER:				B	DRLGUID-1	
		MATERIAL				SCALE: 1:1	WEIGHT: N.M.	SHEET 4 OF 5
		FR-4 BOARD						
NEXT ASSY	USED ON	FINISH						
APPLICATION		Electroless Tinning						
		DO NOT SCALE DRAWING						

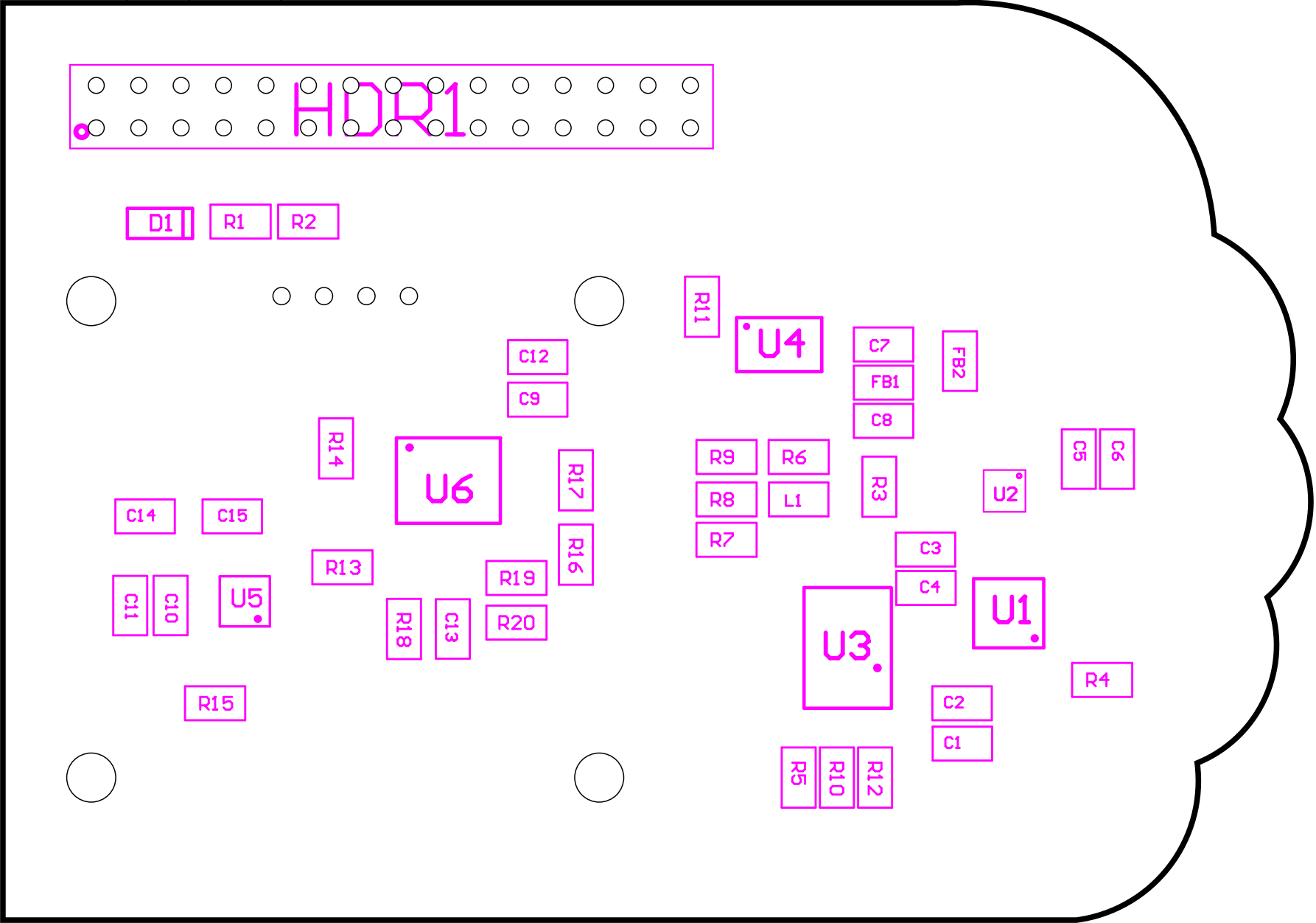
A

B

C

D

View from Top side (Scale 3:1)



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		DIMENSIONS ARE IN MM	DRAWN	C. A.	25/03/2020	TITLE <i>SMAQ - Board Assembly View 2</i>		
		TOLERANCES: 0.01 MM	CHECKED	C. A.	25/03/2020			
		FRACTIONAL±	ENG APPR.	TEAM 7	26/03/2020			
		ANGULAR: MACH± BEND ±	MFG APPR.	TEAM 7	26/03/2020			
		TWO PLACE DECIMAL ±	Q.A.	TEAM 7	26/03/2020			
		THREE PLACE DECIMAL ±	COMMENTS:			SIZE B		
		INTERPRET GEOMETRIC TOLERANCING PER:						
		MATERIAL				ASSYVW-2		
		FR-4 BOARD						
NEXT ASSY	USED ON	FINISH						
		Electroless Tinning						
APPLICATION		DO NOT SCALE DRAWING				SCALE: 1:1	WEIGHT: N.M.	SHEET 5 OF 5

A

B

C

D