

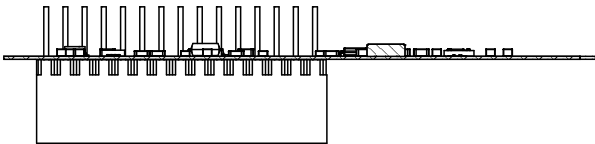
A

B

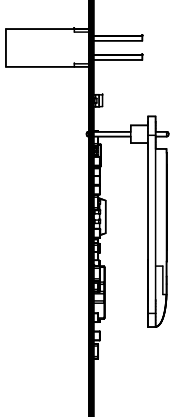
C

D

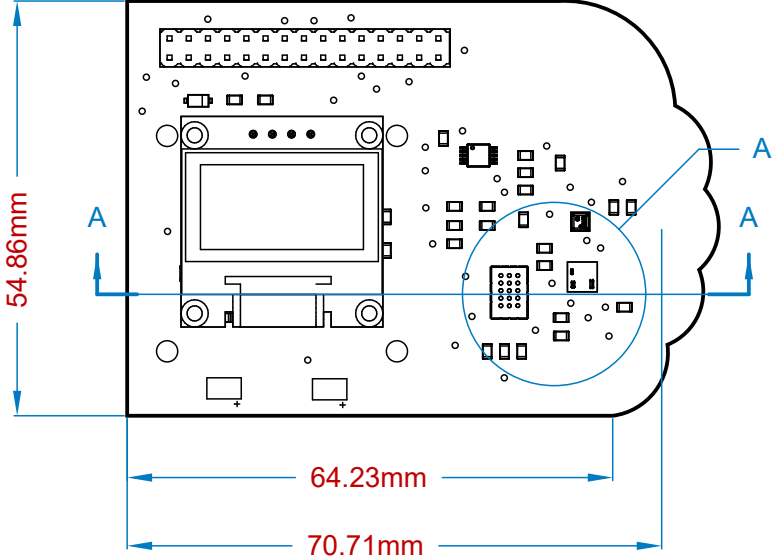
SECTION A-A (Scale 1:1)



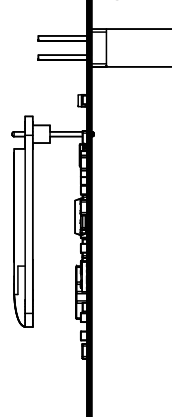
View from Left side (Scale 1:1)



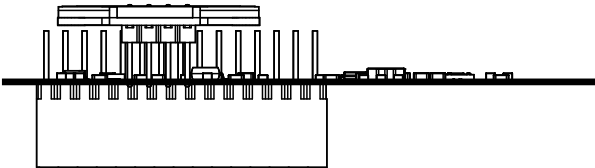
View from Top side (Scale 1:1)



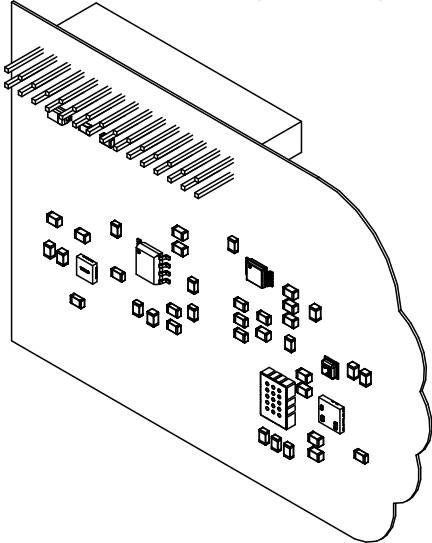
View from Right side (Scale 1:1)



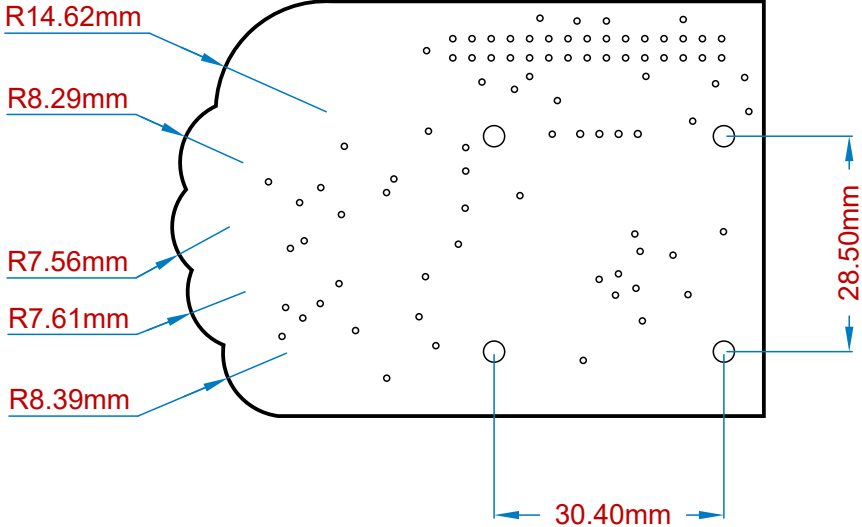
View from Front side (Scale 1:1)



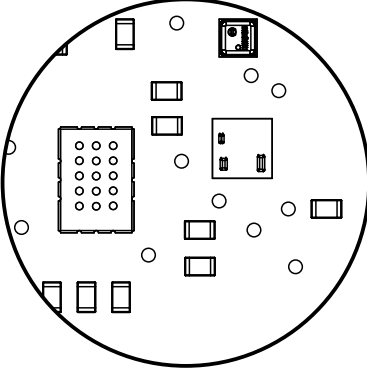
View from Top side (Scale 1:1)



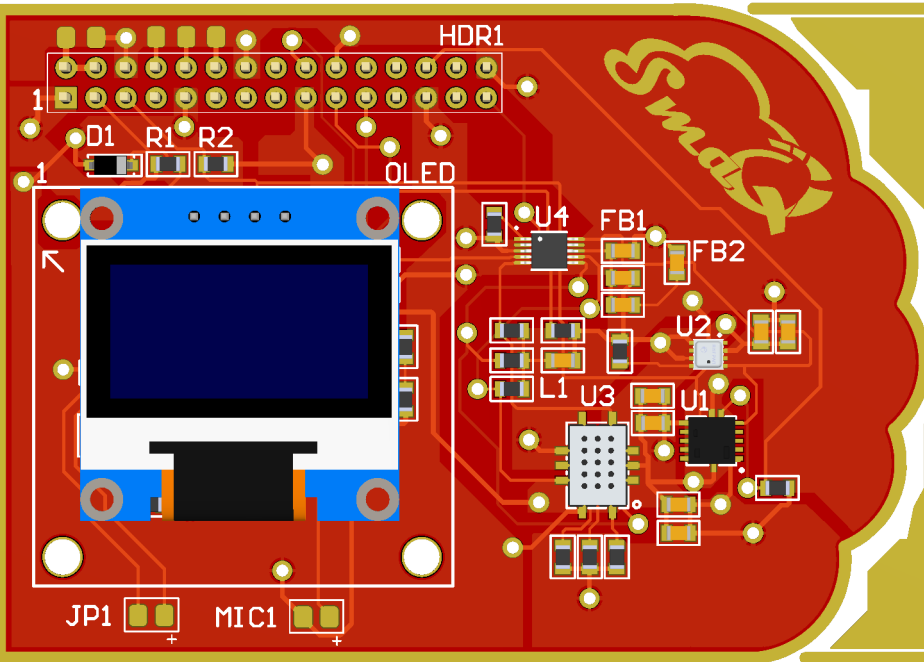
View from Bottom side (Scale 1:1)



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				
			COMMENTS:			SIZE    DWG. NO.  B    ASSYVW-1			
		MATERIAL							
		FR-4 BOARD							
NEXT ASSY	USED ON	FINISH Electroless Tinning				SCALE:    1:1    WEIGHT: N.M.    SHEET 1 OF 5			
APPLICATION		DO NOT SCALE DRAWING							

A

B

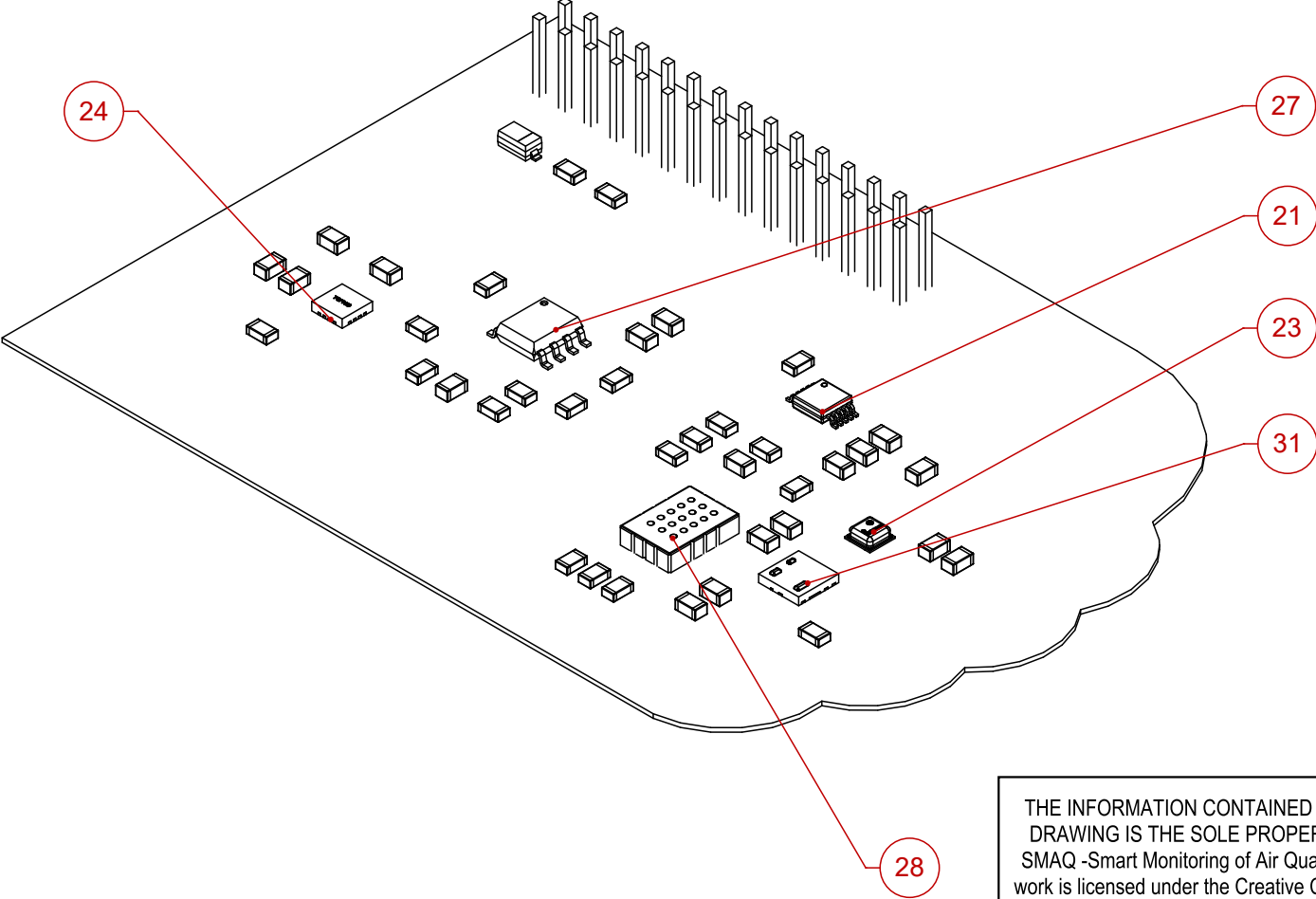
C

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)



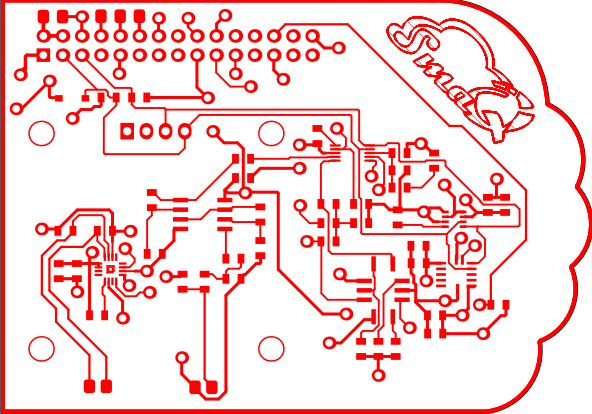
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Bill Of Materials

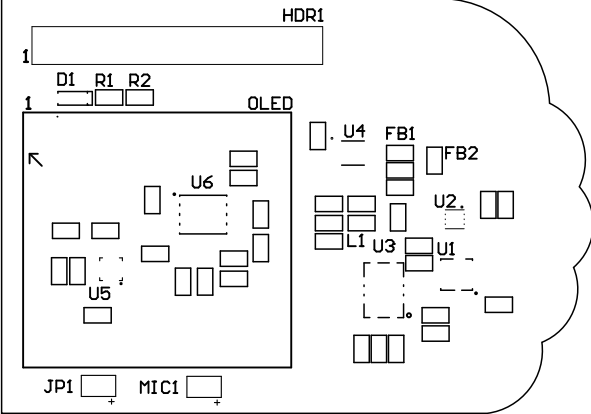
Line #	Designator	Name	Quantity
1	R15	0 Ohm	1
2	C2, C4, C5, C6, C7, C9, C10	0.1uF / 50V	7
3	C12	0.22uF	1
4	R13, R16	1k	2
5	C8, C13	1uF / 50V	2
6	L1	1uH 800mA	1
7	HDR1	2x20 GPIO F HDR	1
8	R1, R2	2.74k	2
9	MIC1	3.0 Vdc	1
10	D1	3.6V 0.5W	1
11	R3, R4, R6, R11, R14, R17, R18	10k 1%	7
12	C3, C11	10uF 16V	2
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

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		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.		26/03/2020	SMAQ - BOM and Layer Stack	
		THREE PLACE DECIMAL ±		COMMENTS:				
		INTERPRET GEOMETRIC TOLERANCING PER:					SIZE	
		MATERIAL					DWG. NO.	
		FR-4 BOARD					B	
		FINISH					BOMLYR-1	
		Electroless Tinning						
		DO NOT SCALE DRAWING						
NEXT ASSY		USED ON						
APPLICATION							SCALE: 1:1	
							WEIGHT: N.M.	
							SHEET 2 OF 5	

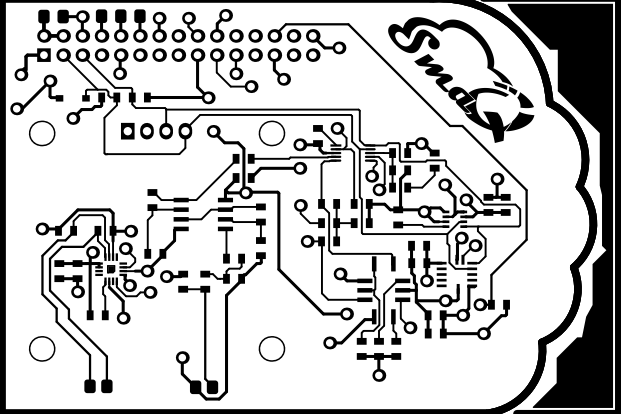
Top Layer (Scale 1:1)



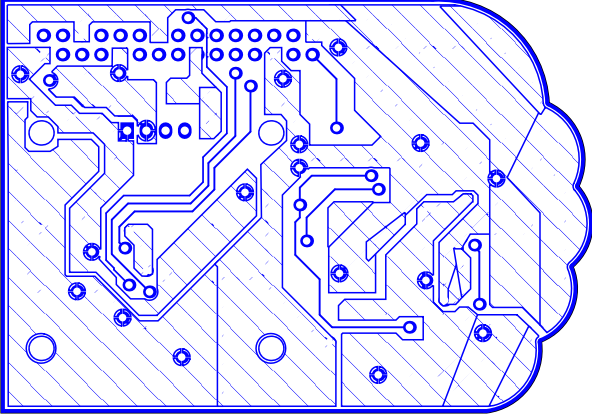
Top Overlay (Scale 1:1)



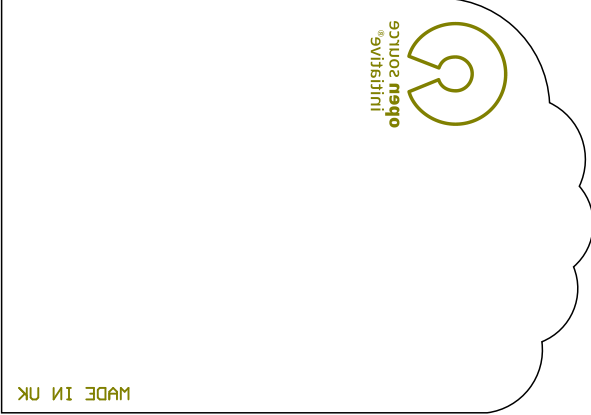
Top Layer (Scale 1:1)



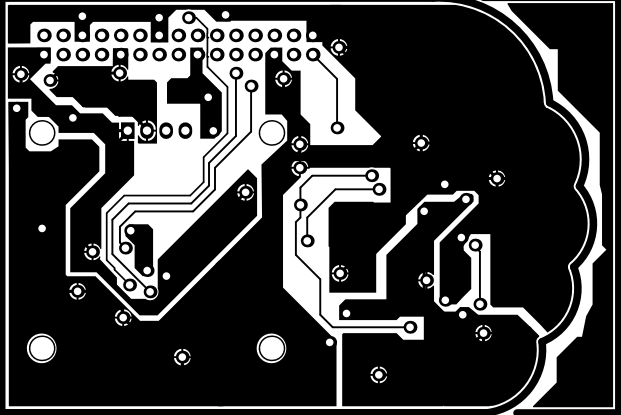
Bottom Layer (Scale 1:1)



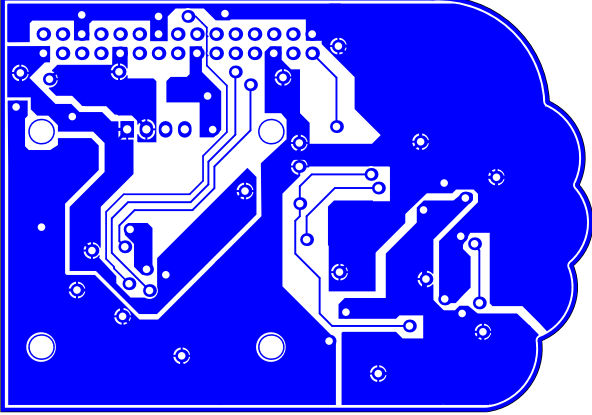
Bottom Overlay (Scale 1:1)



Bottom Layer (Scale 1:1)



Bottom Layer (Scale 1:1)



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		DIMENSIONS ARE IN MM	DRAWN	C. A.	25/03/2020	TITLE  <i>SMAQ - Fabrication Views</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    DWG. NO.  B		

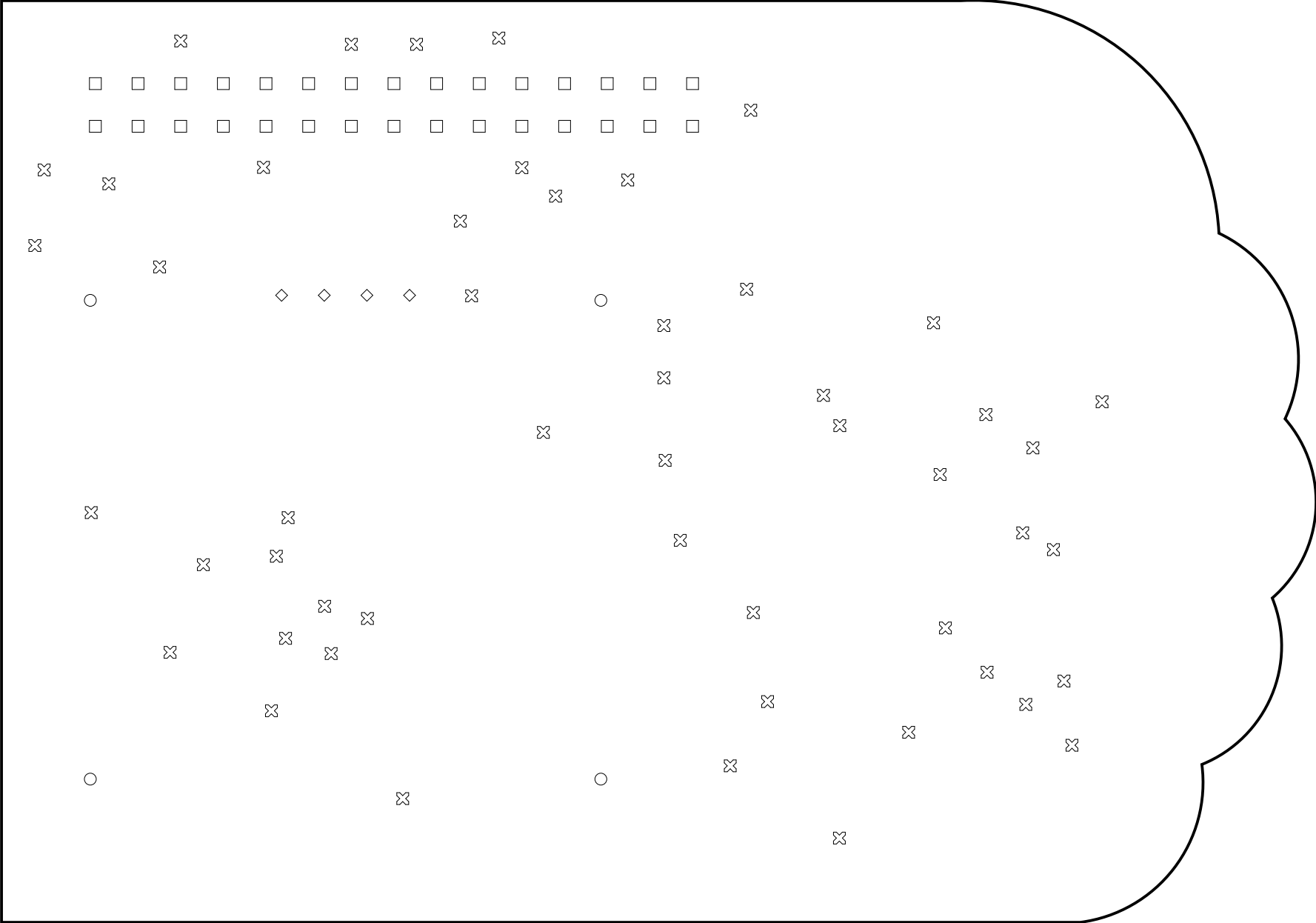
A

B

C

D

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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		DIMENSIONS ARE IN MM	DRAWN	C. A.	25/03/2020	TITLE  <i>SMAQ - Drill Guide</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				FR-4 BOARD			DWG. NO.		
		FINISH							DRLGUID-1		
		Electroless Tinning									
NEXT ASSY	USED ON	DO NOT SCALE DRAWING				SCALE: 1:1	WEIGHT: N.M.	SHEET 4 OF 5			

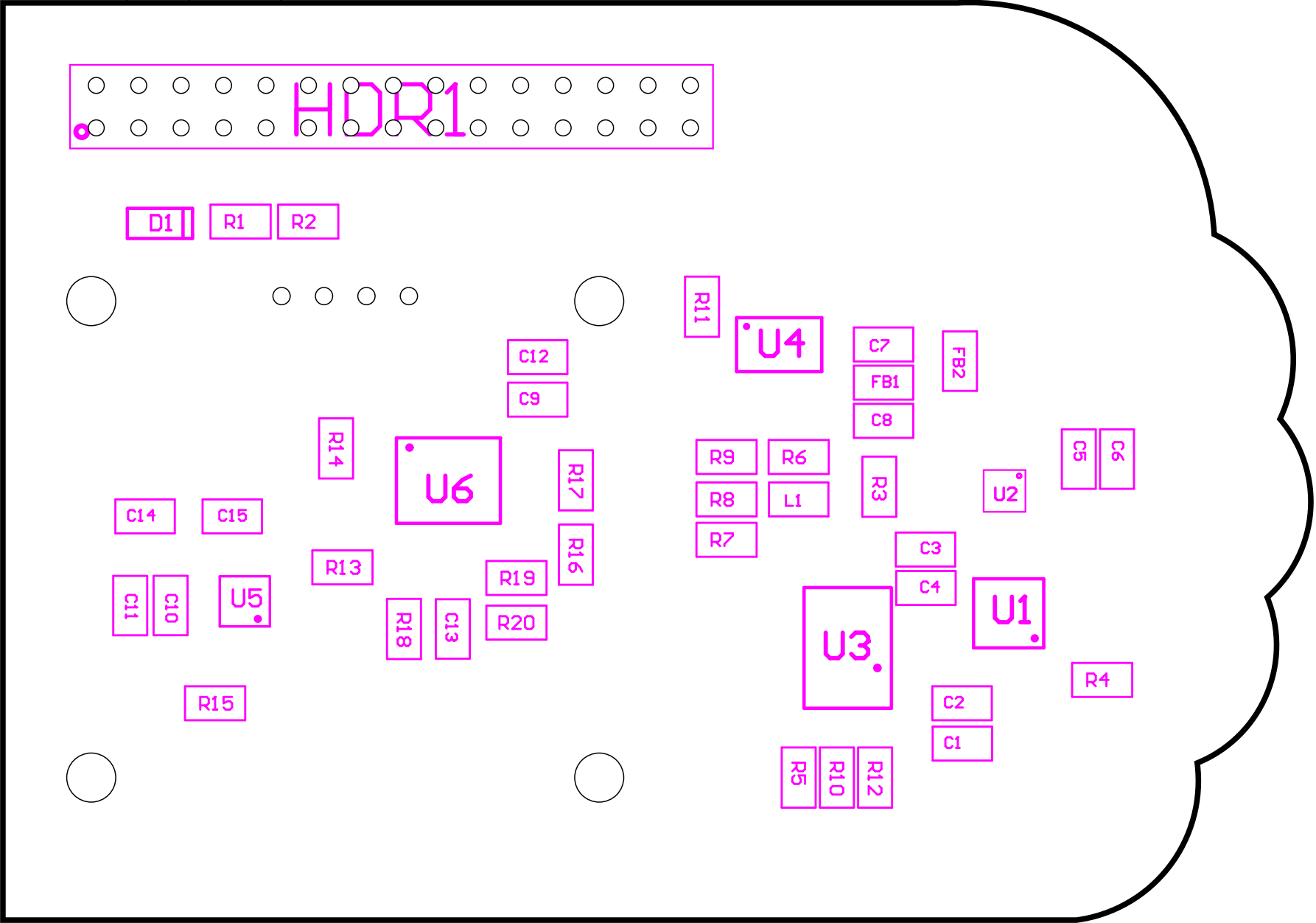
A

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>B</b>  DWG. NO. <i>ASSYVW-2</i>			
		INTERPRET GEOMETRIC TOLERANCING PER:							
		MATERIAL							
		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