

A

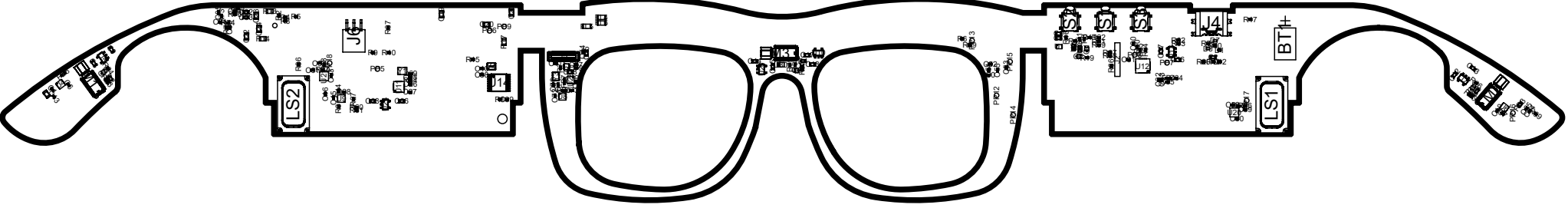
B

C

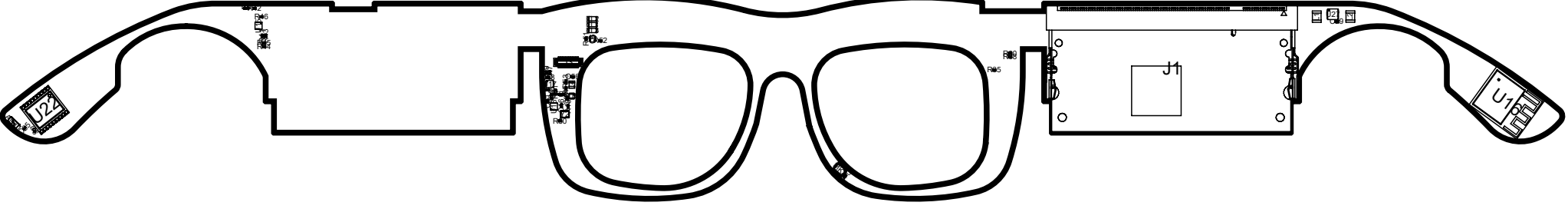
D

E

View from Top side (Scale 1:1.64)



View from Bottom side (Scale 1:1.64)



A

B

C

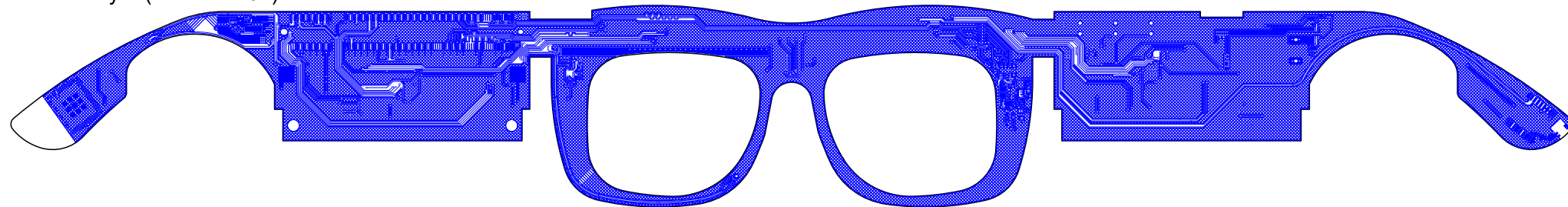
D

E

Top Layer (Scale 1:1.64)



Bottom Layer (Scale 1:1.64)



Symbol	Count	Hole Size	Plated	Hole Tolerance
○	661	0.20mm	Plated	
□	1	0.50mm	Non-Plated	
▣	2	0.76mm	Plated	
◇	6	0.90mm	Non-Plated	
▽	1	1.12mm	Plated	
☆	1	1.60mm	Plated	
✧	2	3.00mm	Plated	
674 Total				



Transmission Line	Target Impedance	Trace layer	Wide Trace Width	Narrow Trace Width	Gap	Reference layers	Clearance	Target Tolerance
Edge-Coupled Coated Microstrip	100	Top Layer	0.09mm	0.09mm	0.17mm	Int1 (GND)	0.13mm	10%
Edge-Coupled Coated Microstrip	100	Bottom Layer	0.09mm	0.09mm	0.17mm	Int2 (GND)	0.13mm	10%

	Material	Layer	Thickness	Dielectric Material	Type	Gerber
	Surface Material	Board Layer Stack Top Coverlay	0.01mm	FC-001	Solder Mask	GCT1
	CF-004	Top Layer	0.04mm		Signal	GTL
	Prepreg		0.03mm	PP-017	Dielectric	
	CF-004	Int1 (GND)	0.02mm		Internal Plane	GP1
	Core		0.13mm	Core-039	Dielectric	
	CF-004	Int2 (GND)	0.02mm		Internal Plane	GP2
	Prepreg		0.03mm	PP-017	Dielectric	
	CF-004	Bottom Layer	0.04mm		Signal	GBL
	Surface Material	Board Layer Stack Bottom Coverlay	0.01mm	FC-001	Solder Mask	GCB1
Total thickness: 0.30mm						

Bill Of Materials

Line #	Designator	Comment	Quantity
1	ANT1	W3011	1
2	BT1	Battery Soldered	1
3	C1, C6, C7, C10, C26, C27, C46, C47, C48, C49, C50, C51, C52, C53, C55, C59, C60, C62, C63, C71, C72, C73, C79, C86	1uF/6V3	24
4	C2, C4, C5, C8, C12, C17, C75, C78	22uF/6V3	8
5	C3, C19, C20, C21, C22, C23, C24	47uF/6V3	7
6	C9, C13, C18, C36, C37, C44, C45, C66, C68	1uF/6V3	9
7	C11, C15, C16, C28, C30, C32, C34, C35, C38, C39, C40, C43, C54, C65, C69, C70, C74, C76, C77, C81	100nF	20
8	C14, C57, C58, C61, C64	4.7uF/6V3	5
9	C25	2.2pF	1
10	C29, C31, C84	100pF	3
11	C33, C80, C85	10uF/6V3	3
12	C41, C42	1uF/6V3	2
13	C56	22uF/6V3	1
14	C82, C83	10uF	2
15	D1	ESD9B5.0ST5G	1
16	D2, D3, D4	RB520S30T1G	3
17	D5	155060VS73200	1
18	D6	PESD5V0S1UL,315	1
19	D7, D8	TPD1E05U06DPYT	2
20	FB1, FB2, FB4, FB5, FB6, FB7, FB8	BLM18SG121TN1D	7
21	FB3	BLM18AG601SN1D	1
22	FL1, FL2, FL3, FL4, FL5, FL6	CMA0805A900R-1A	6
23	J1	CM3P_CM4S	1
24	J3	DF37NC-30DS-0.4V(51)	1
25	J4	USB4135-GF-A	1
26	J5	505550-3420	1
27	J6	M22-6540342R	1
28	L1, L2	DFE322520F-2R2M=P2	2
29	L4	DFE201612P-1R0M=P2	1
30	LS1, LS2	CMS-16093-078SP-67	2
31	M1, M2, M3	HD-EMB1104-SM-2	3
32	MK2	MP23ABS1TR	1
33	Q1, Q2, Q3, Q4, Q5	NTK3134NT5G	5
34	Q6, Q7	DMG1024UV-7	2
35	R1, R36, R66, R79	10K	4

Bill Of Materials

Line #	Designator	Comment	Quantity
36	R2, R3, R4, R5, R7, R21, R22, R34, R35, R50, R51, R52, R64, R65	2K2	14
37	R6, R27, R29, R30, R31, R38, R60, R61, R62, R63	0R	10
38	R8, R12, R20	47K	3
39	R9, R10, R67, R68, R73	100K	5
40	R11, R16	1K5	2
41	R13, R14, R17	0R	3
42	R15, R18, R19, R24, R26, R33, R37	1K0	7
43	R23, R25, R32	330	3
44	R28	4K7	1
45	R39	330	1
46	R40, R49, R59	10K	3
47	R41, R44, R45	27K	3
48	R42, R43, R46	680R	3
49	R47	10K	1
50	R48	33	1
51	R53	12K1	1
52	R54	14K5	1
53	R55, R56, R57, R58	22K	4
54	R70, R71	5K1	2
55	R72	680K	1
56	R74, R76	150K	2
57	R75	300K	1
58	S1, S2, S3	TL3901AGQF180	3
59	U1	SIP32411DNP-T1-GE4	1
60	U2	74LVC1G08GM-Q100X	1
61	U3	74LVC1G32GM-Q100H	1
62	U4, U6, U25	TLV75533PDRVR	3
63	U5, U7, U10, U13, U24, U26	TLV74333PDBVR	6
64	U8, U17	TLV75518PDRVR	2
65	U9	MC6470	1
66	U11	SGTL5000XNLA3	1
67	U12	PIC16LF1829-I ML	1
68	U14	SC16IS741AIPWJ	1
69	U15	BQ25170DSGR	1
70	U16	ESP8684-MINI-1-H2	1
71	U18	TLV75528PDRVR	1
72	U19	TPS62A02DRLR	1
73	U20, U21	LM4819LD NOPB	2
74	U22	MAX-M10M-00B	1
75	U27	PAM2319AYAA	1
76	U30	VCNL36825T	1
77	Y1	ECS-2520MVL-122.8-CN-TR	1
78	Y2, Y3	ECS-2520MV-240-BL-TR	2
79	Y4	ASDDV-1.8432MHZ-LC-T3	1

A

B

C

D

E

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