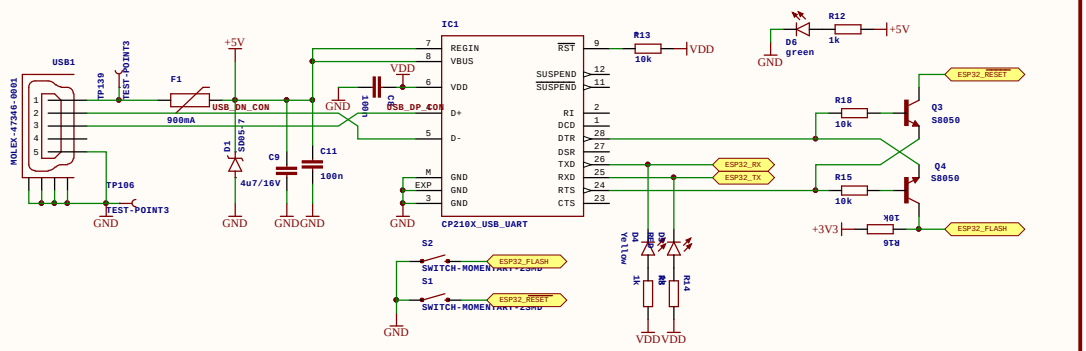
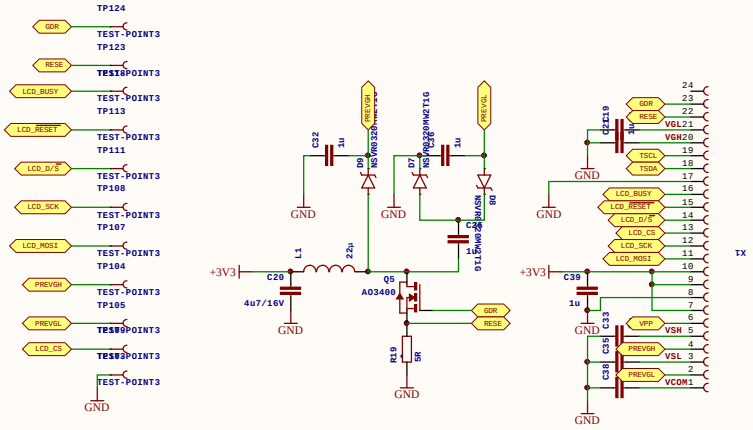
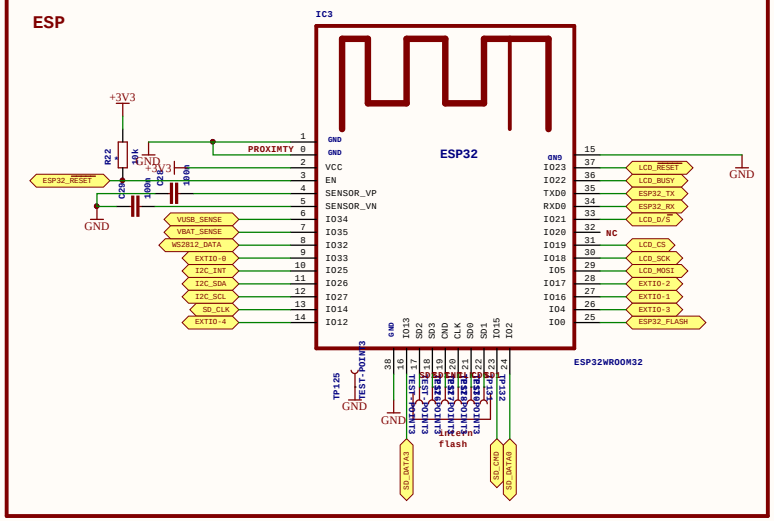
USB Serial



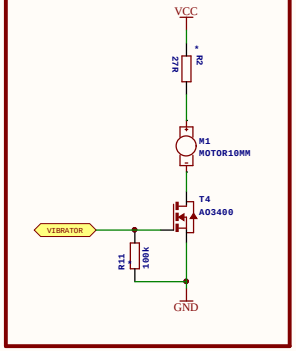
E-Paper Display



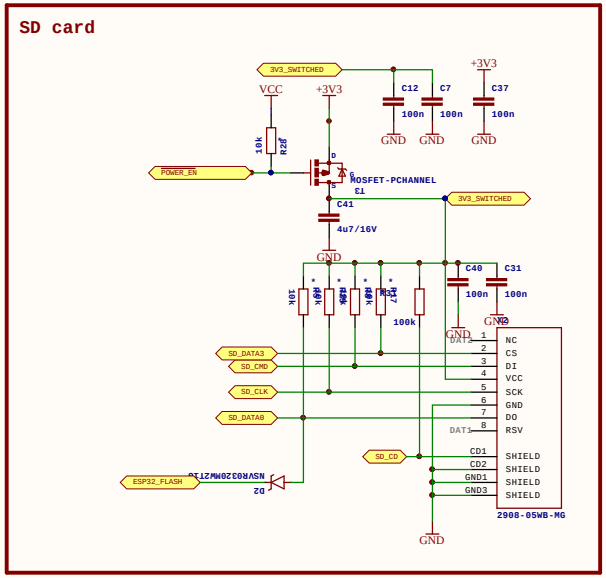
ESP



Pager motor



SD card



Fiducials

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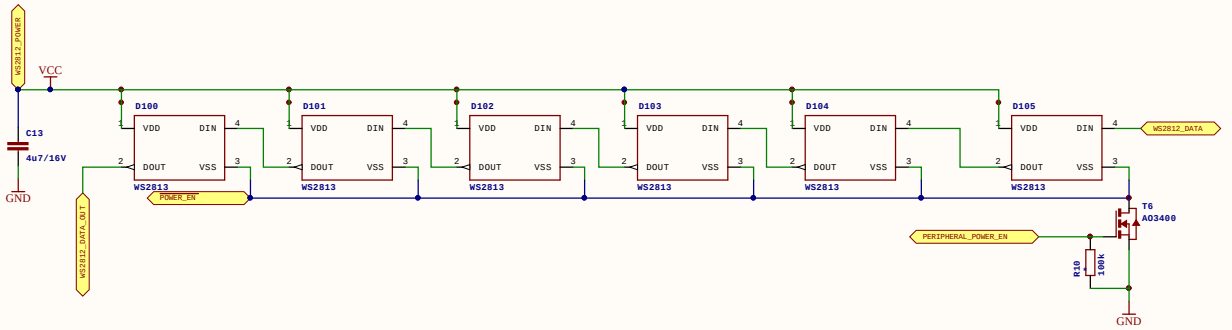
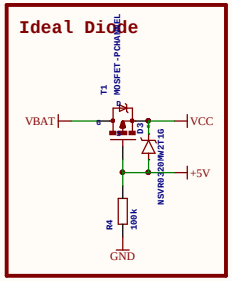
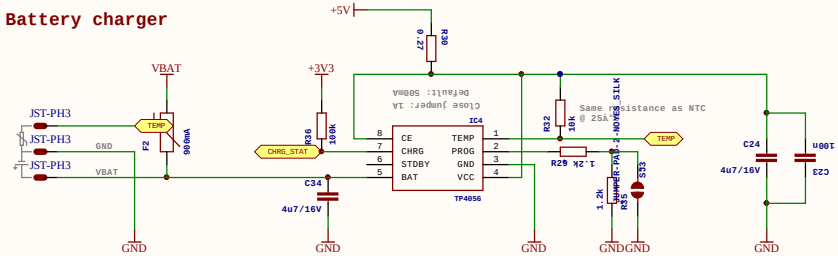
WS2812



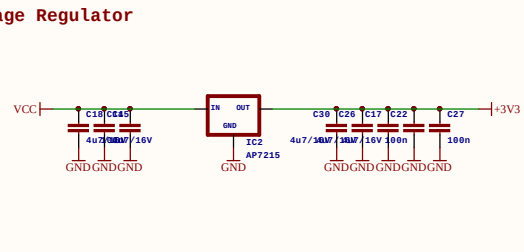
Ideal Diode



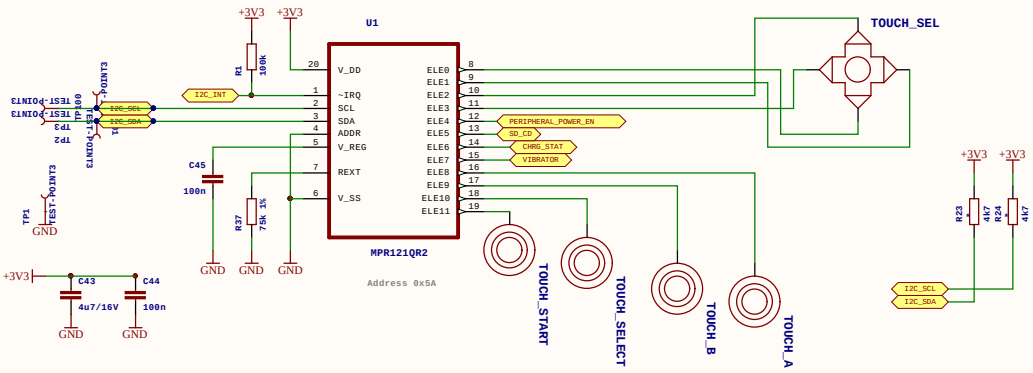
Battery charger



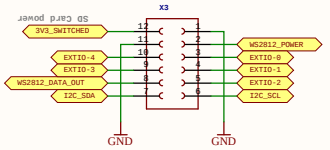
Voltage Regulator



Touch Controller / IO expander



IO header



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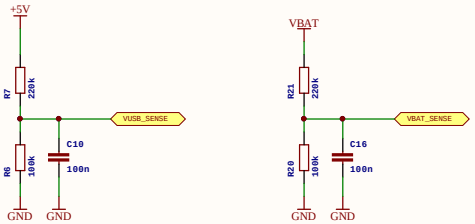
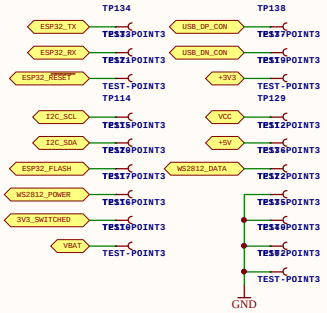
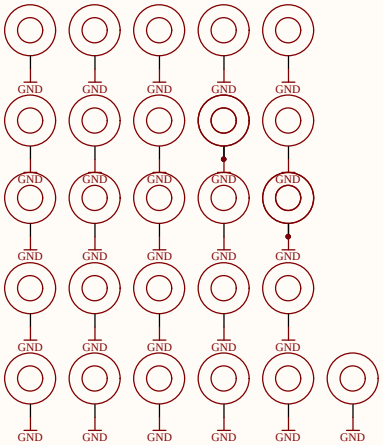
Voltage sensing



Test points



Special Vias with thermals (hack)



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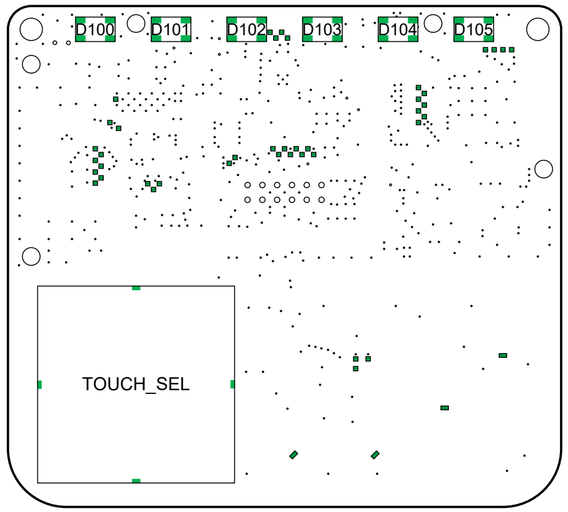
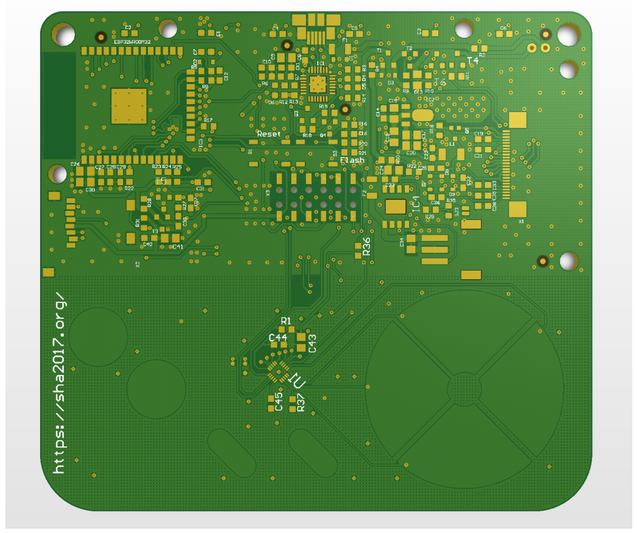
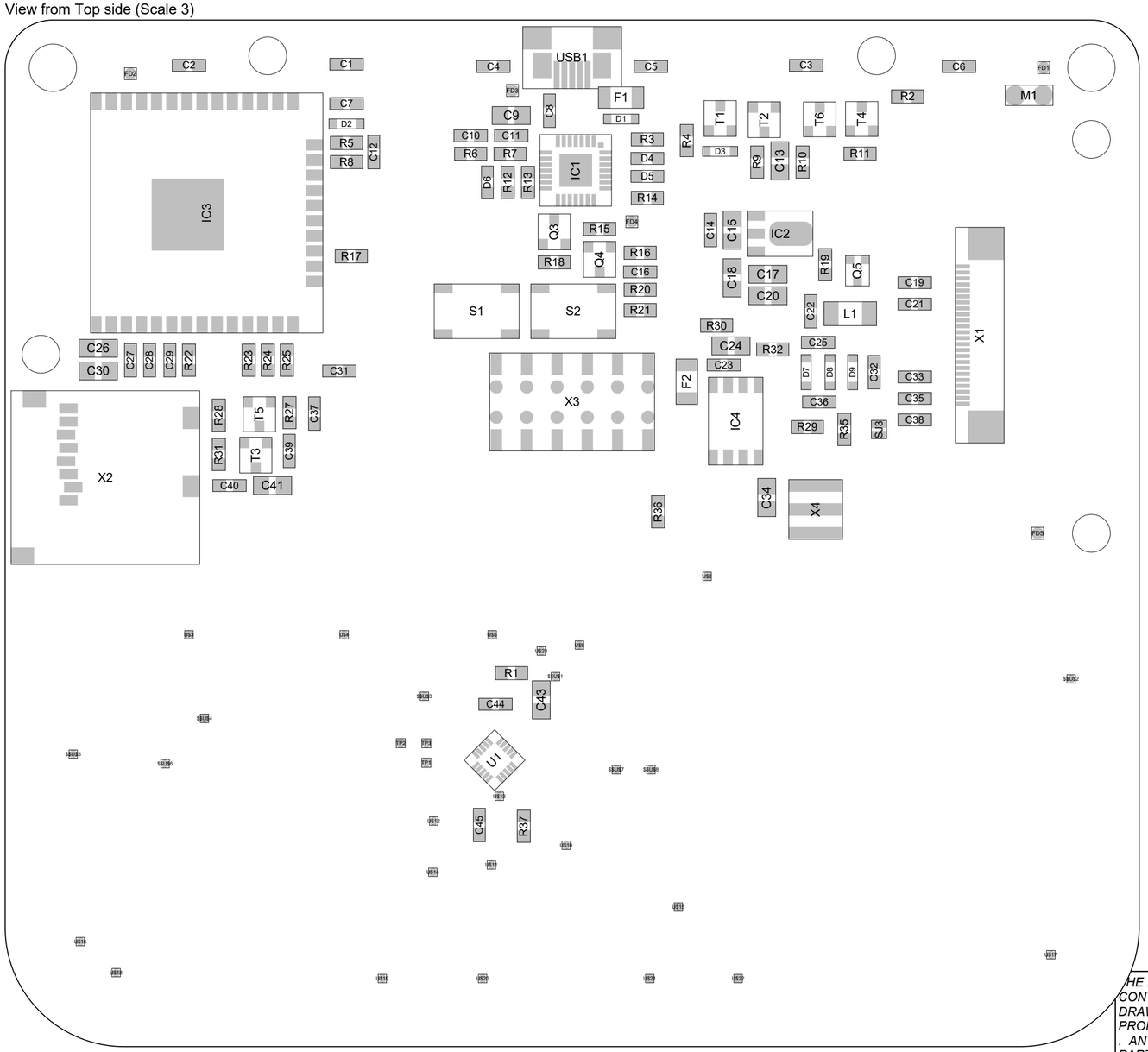




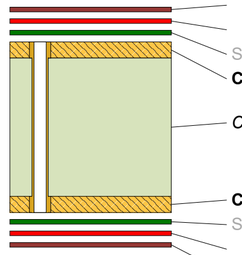
View from Top side (Scale 3)



Bill Of Materials

Item	Designator	Comment	Quantity
1	C1-C8, C10-C12, C14, C16, C22, C23, C27-C29, C31, C37, C40, C44, C45	100n	23
2	C19, C21, C25, C32, C33, C35, C36, C38, C39	1u	9
3	C9, C13, C15, C17, C18, C20, C24, C26, C30, C34, C41, C43	4u7/16V	12
4	D1	SD05-7	1
5	D100-D105	SK6812	6
6	D4	Yellow	1
7	D5	RED	1
8	D6	green	1
9	D2, D3, D7-D9	NSVR0320MW2T1G	5
10	F1, F2	900mA	2
11	IC1	CP210X_USB_UART	1
12	IC2	AP7215	1
13	IC3	ESP32WROOM32	1
14	L1	22µ	1
15	Q3, Q4	MMBT2222A	2
16	Q5	SI1304 BDL	1
17	R3, R12, R14	1k	3
18	R4, R5, R8-R10, R13, R15-R18, R22, R25, R28, R32	10k	14
19	R19	5R	1
20	R2	27R	1
21	R7, R21	220k	2
22	R23, R24	4k7	2
23	R29, R35	1.2k	2
24	R30	150k	1
25	R1, R6, R11, R20, R27, R31, R36	100k	7
26	R37	75k 1%	1
27	S1, S2	SWITCH-MOMENTARY-2SMD	2
28	SJ3	JUMPER-PAD-2-NOYES_SILK	1
29	T4-T6	AO3400	3
30	U1	MPR121QR2	1
31	USB1, X1, X3, X4, FD1-FD5, TOUCH_B, TOUCH_A, TOUCH_SEL, T1-T3, TP1-TP3, TP100-TP140, M1, U$2-U$6, U$10-U$23, $$U$1-$$U$9, IC4, TOUCH_SELECT, TOUCH_START		91
32	X2	2908-05WB-MG	1

Layer Stack Legend



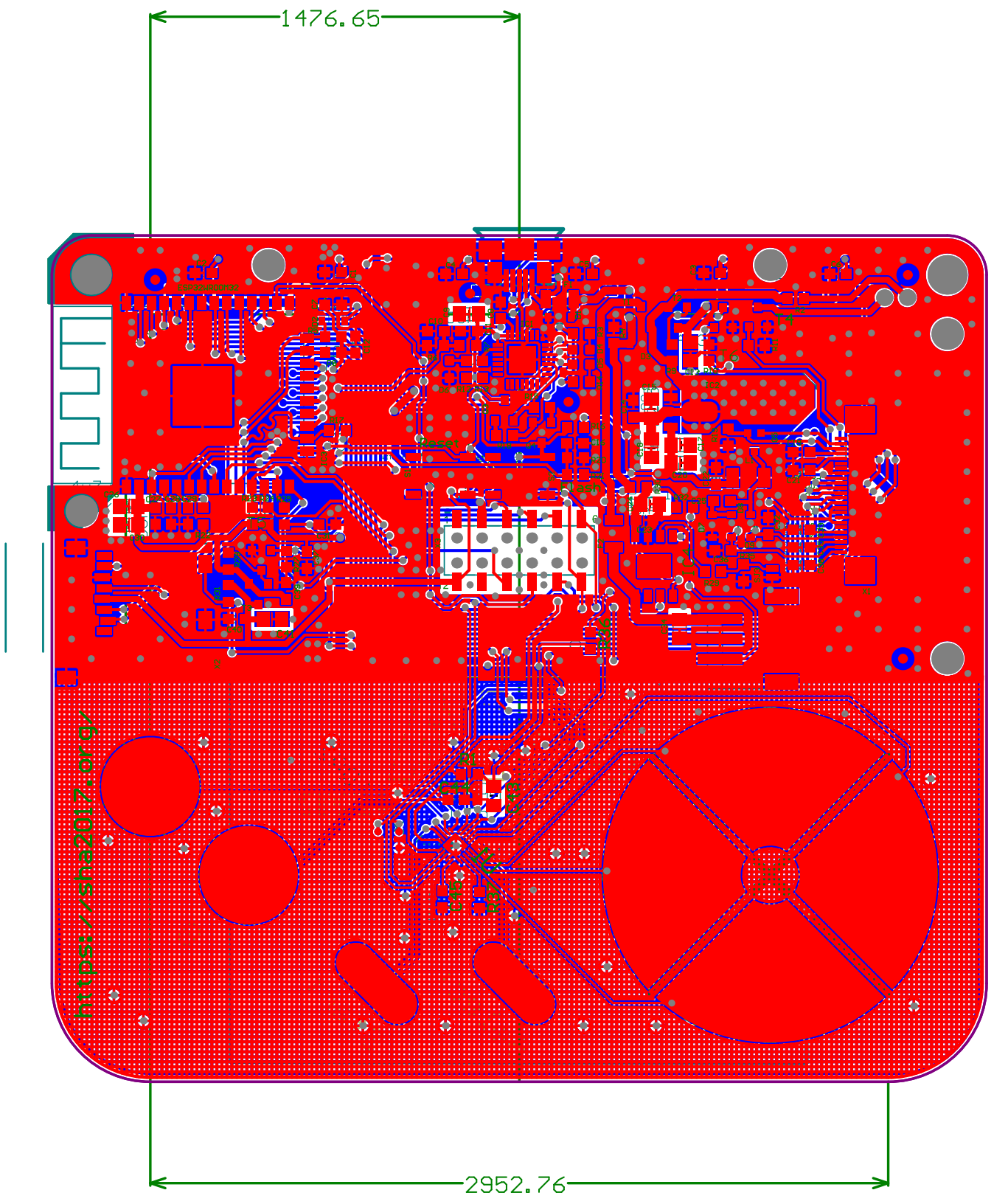
Material	Layer	Thickness	Dielectric Material	Type	Gerber
	Top Paste			Paste Mask	GTP
	Top Overlay			Legend	GTO
Surface Material	Top Solder	0mm	Solder Resist	Solder Mask	GTS
Copper	**Top**	**0mm**		**Signal**	**GTL**
Core		*2mm*	*FR-4*	*Dielectric*	
Copper	**Bottom**	**0mm**		**Signal**	**GBL**
Surface Material	Bottom Solder	0mm	Solder Resist	Solder Mask	GBS
	Bottom Overlay			Legend	GBO
	Bottom Paste			Paste Mask	GBP

Total thickness: 2mm

UNLESS OTHERWISE SPECIFIED:		NAME	DATE	
DIMENSIONS ARE IN INCHES	DRAWN		4/24/2017	
TOLERANCES: FRACTIONAL±	CHECKED			TITLE
ANGULAR: MACH± BEND±	ENG APPR.			
TWO PLACE DECIMAL ±	MFG APPR.			
THREE PLACE DECIMAL ±	Q.A.			
INTERPRET GEOMETRIC TOLERANCING PER:	COMMENTS:			SIZE / DWG. NO.
MATERIAL				
FINISH				SCALE: 1:1 / WEIGHT: / SHEET 1 OF 1
DO NOT SCALE DRAWING				

NEXT ASSY | USED ON

APPLICATION


1476.65
2952.76
https://shz2017.org/