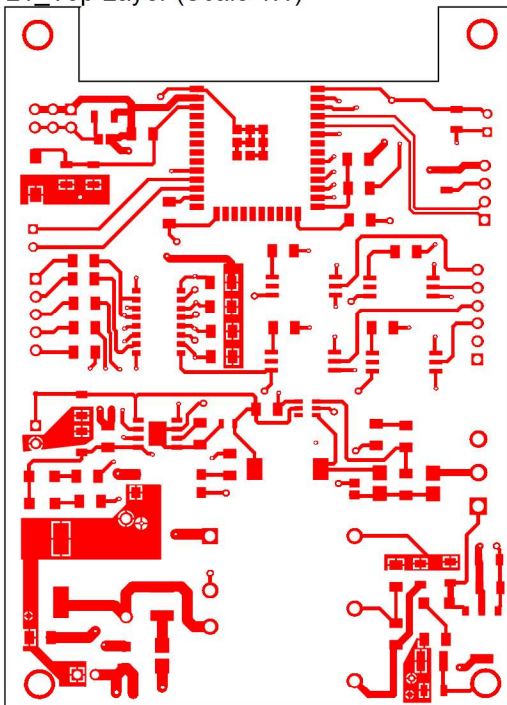
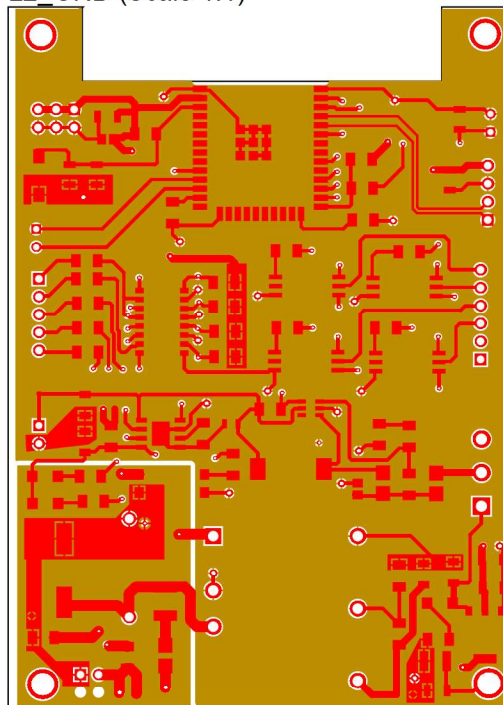


IoT Board Fabrication View

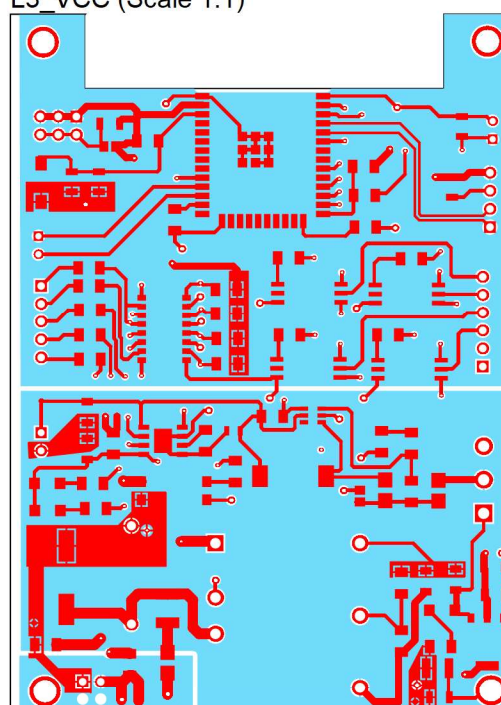
L1_Top Layer (Scale 1:1)



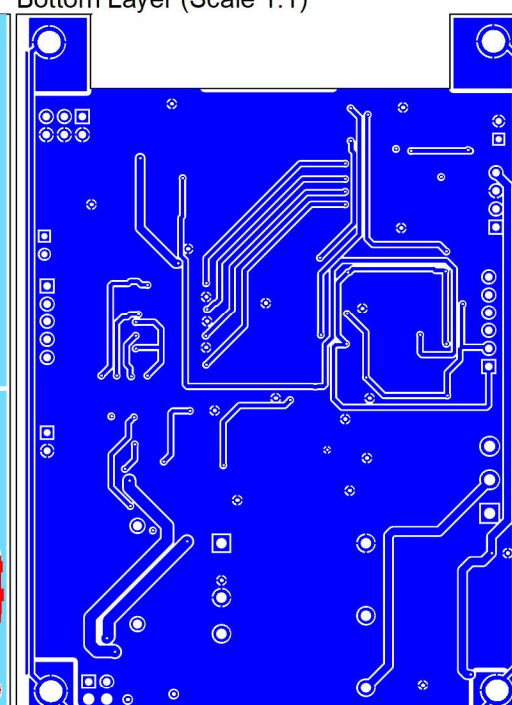
L2_GND (Scale 1:1)



L3_VCC (Scale 1:1)

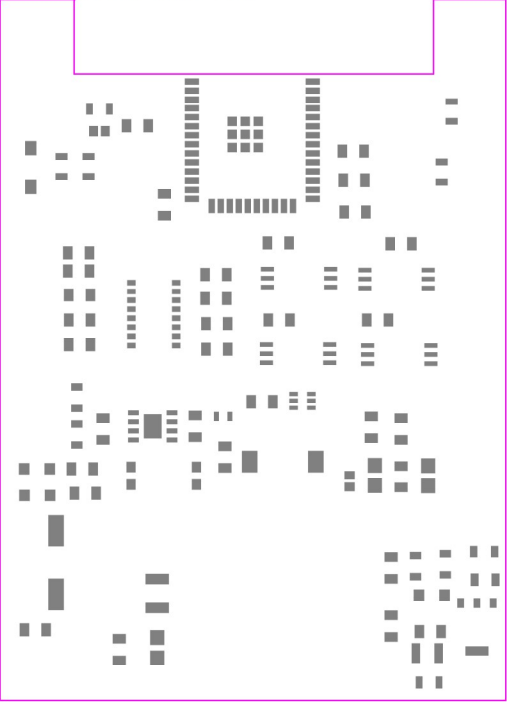


Bottom Layer (Scale 1:1)

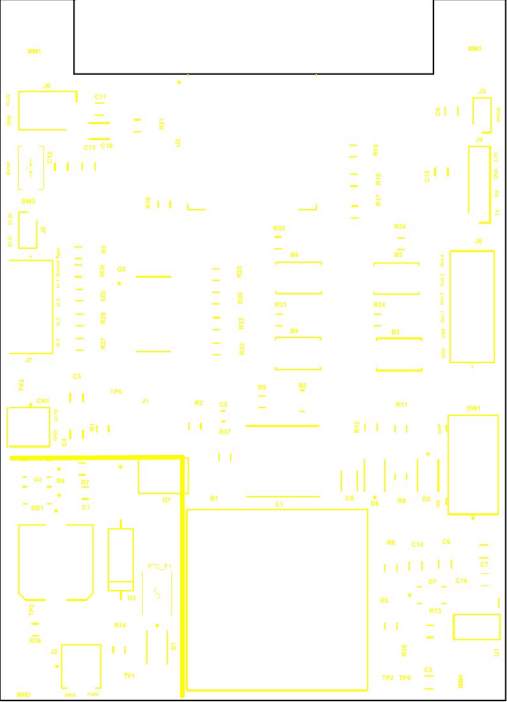


IoT Board Fabrication View

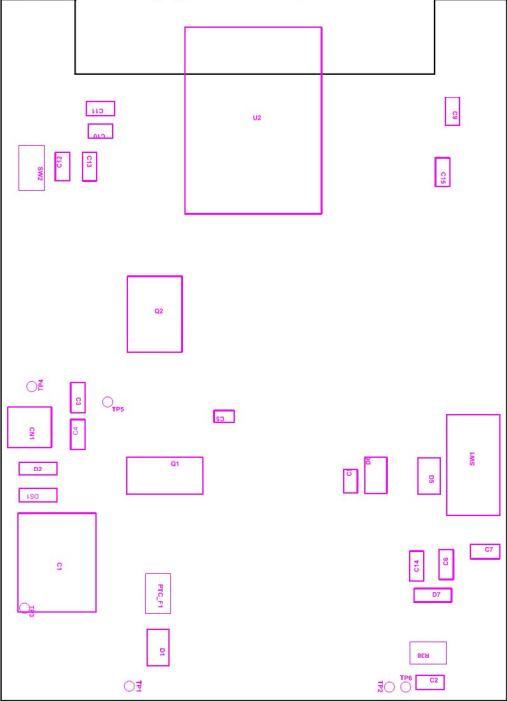
Top Paste (Scale 1:1)



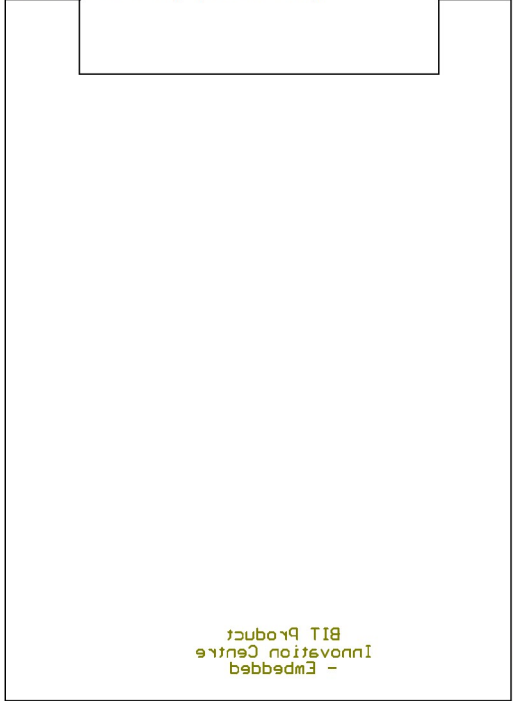
Top Overlay (Scale 1:1)



Top Assembly (Scale 1:1)



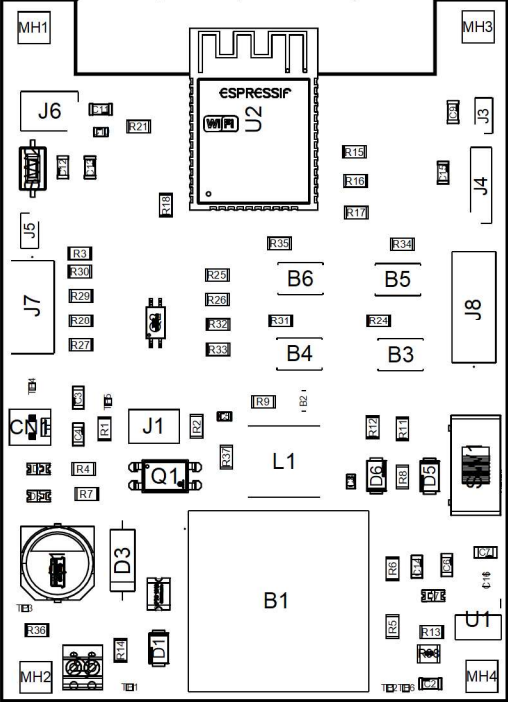
Bottom Overlay (Scale 1:1)



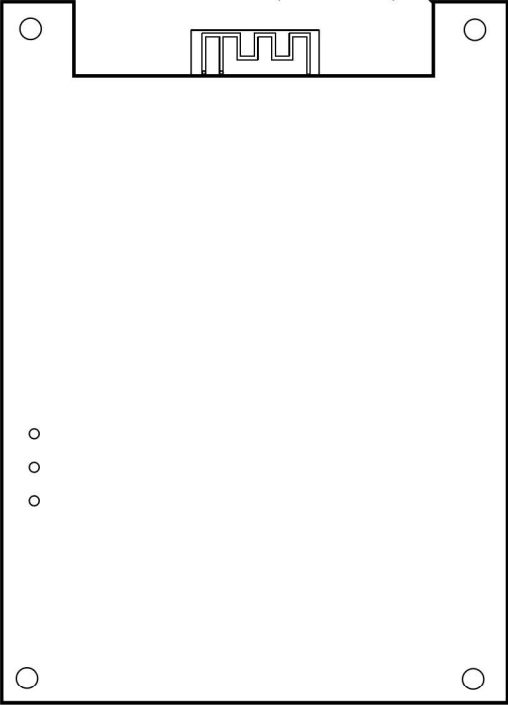
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- Embedded

IoT Board Assembly View

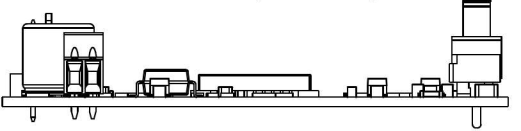
View from Top side (Scale 1:1)



View from Bottom side (Scale 1:1)



View from Front side (Scale 1:1)

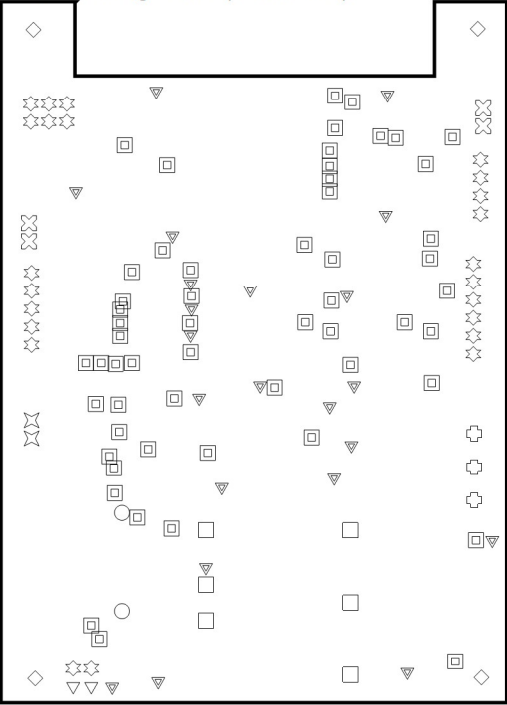


IoT Board Drill Details

Drill Table

Symbol	Count	Hole Size	Plated	Hole Tolerance
◻	56	0.30mm	Plated	
▼	22	0.51mm	Plated	
✕	4	0.90mm	Plated	
✕	2	1.00mm	Plated	
▽	2	1.10mm	Non-Plated	
☆	23	1.10mm	Plated	
○	2	1.30mm	Plated	
◻	6	1.50mm	Plated	
⊕	3	1.60mm	Plated	
◇	4	3.20mm	Plated	
	124 Total			

Drill Drawing View (Scale 1:1)



IoT Board Layer Stackup

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	L1_Top Layer	0.04mm		Signal	GTL
Core		0.07mm	FR-4	Dielectric	
Copper	L2_GND	0.04mm		Signal	G1
Prepreg		1.00mm		Dielectric	
Copper	L3_VCC	0.04mm		Signal	G2
Core		0.07mm	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: 1.31mm					

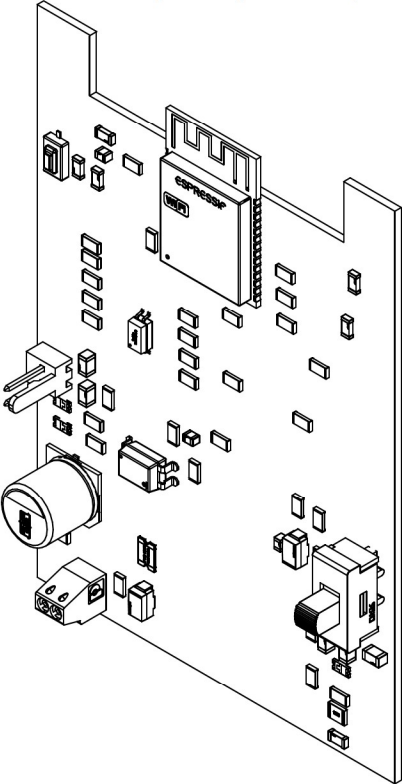
IoT Board BOM

Bill Of Materials

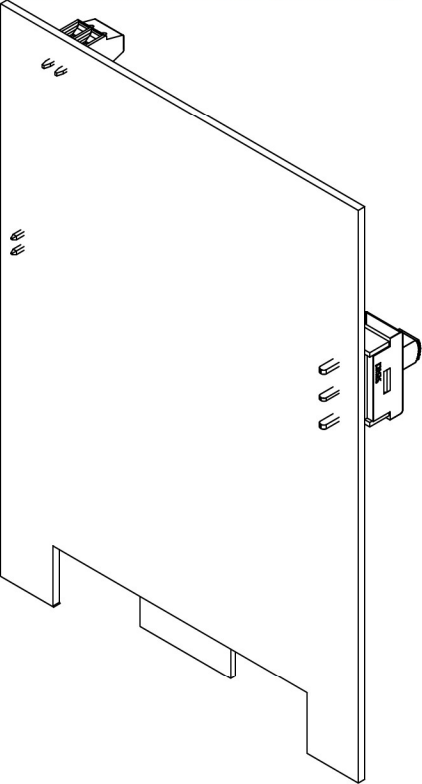
Line #	Designator	Name	Quantity
	B1	URB2405YMD-20WR3	1
	B2	MT3608	1
	B3, B4, B5, B6	FOD8314	4
	C1	HHXC500ARA101MJA0G	1
	C2, C9, C11, C12, C13, C15	C1206C104K5RACTU_220 pF, C1206C104K5RACTU_0.1u F	6
	C3, C4, C6, C7, C14	GRT31CR61H106ME01L_1 0uf	5
	C5	0805_22uF10V	1
	C8, C10	GRM21BR61E226ME44L_2 2uF	2
	C16	TCA1A226M8R	1
	CN1	61900211121	1
	D1, D5, D6	1N4007 SMD	3
	D2, D7, DS1	LTST-C230KRKT	3
	D3	P6KE36ARLG	1
	J1	TP4056	1
	J2	1725656	1
	J3, J5	XG8T-0231	2
	J4	PH1-04-UA	1
	J6	PH2-06-UA	1
	J7	1725685	1
	J8	1725698	1
	L1	CDRH104RNP-220NC_22u H	1
	PTC_F1	0ZCG0050AF2C	1
	Q1	FOD817D3SD	1
	Q2	TLP290-4(TP,E	1
	R1, R2, R3, R4, R5, R6, R7, R8, R9, R11, R12, R13, R14, R15, R16, R17, R18, R21, R24, R25, R26, R27, R28, R29, R30, R31, R32, R33, R34, R35, R36, R37	Resistor 0R +/- 5% 1206 250 mW	32
	R38	1M_SHLD	1
	SW1	CS12ANW03	1
	SW2	CPU_RST_SW	1
	TP1, TP2, TP3, TP4, TP5, TP6	Test Point	6
	U1	ams1117-3.3v	1
	U2	ESP32-WROOM-32D	1

IoT Board Isometric View

View from Top side (Scale 1:1)

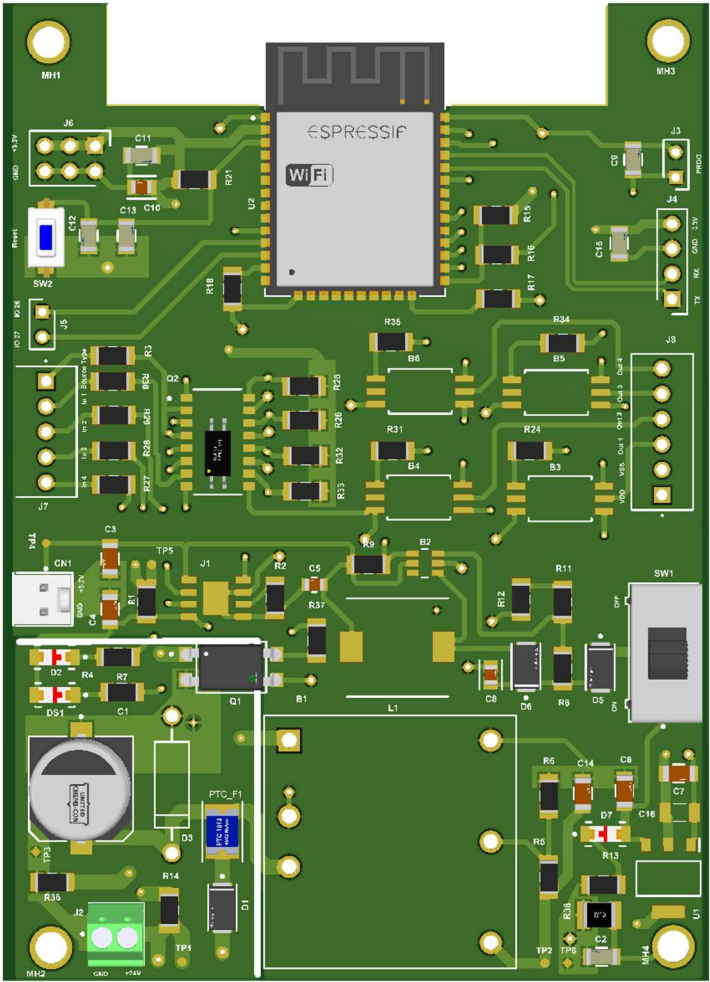


View from Bottom side (Scale 1:1)



IoT Board Realistic 3D View

Realistic View



Realistic View

