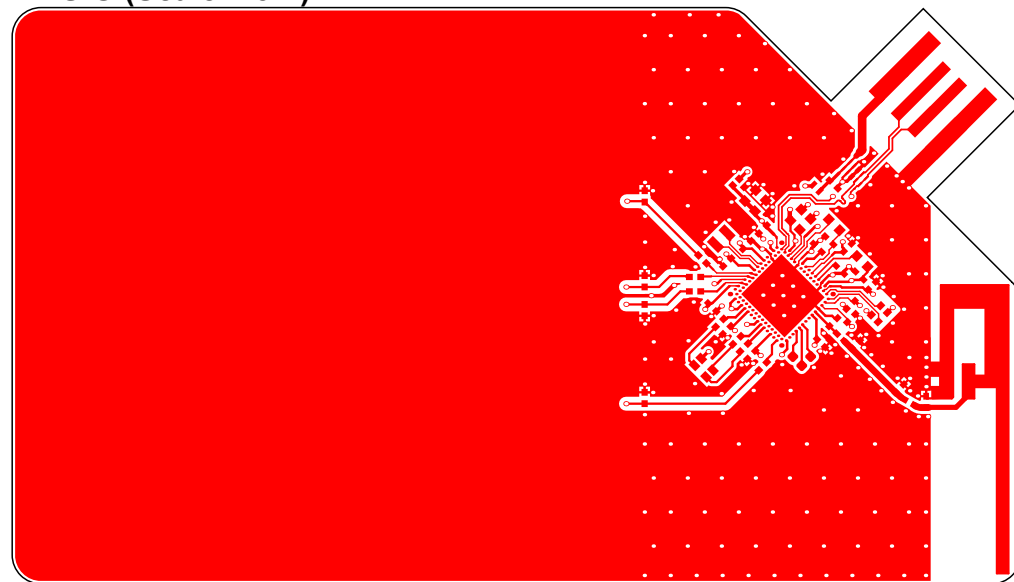
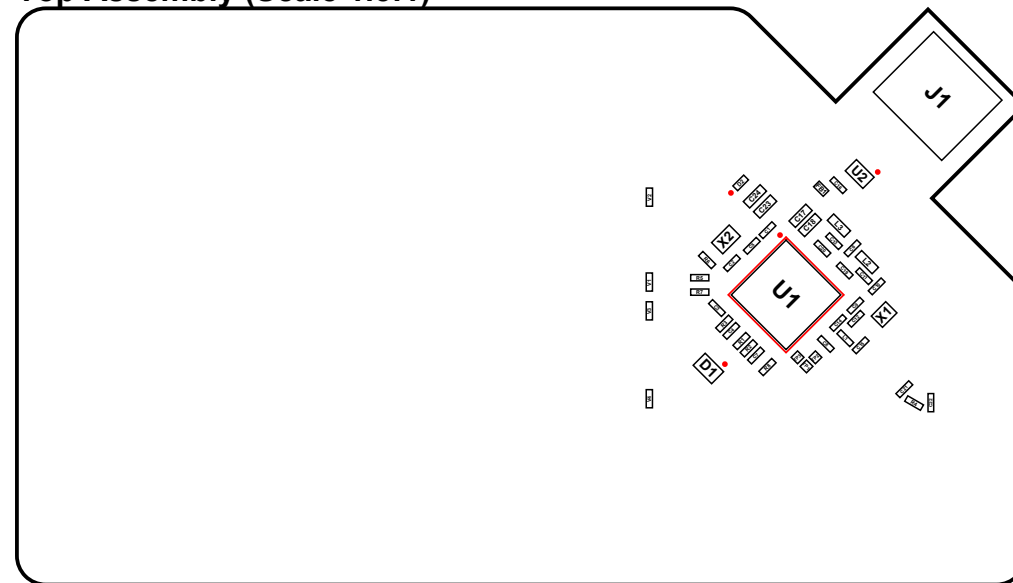


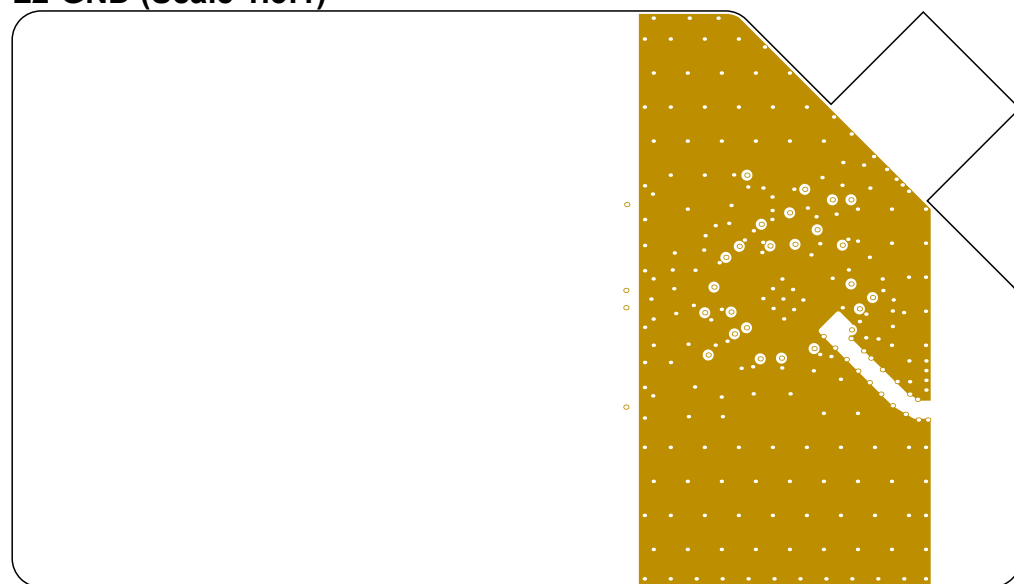
L1-SIG (Scale 1.5:1)



Top Assembly (Scale 1.5:1)



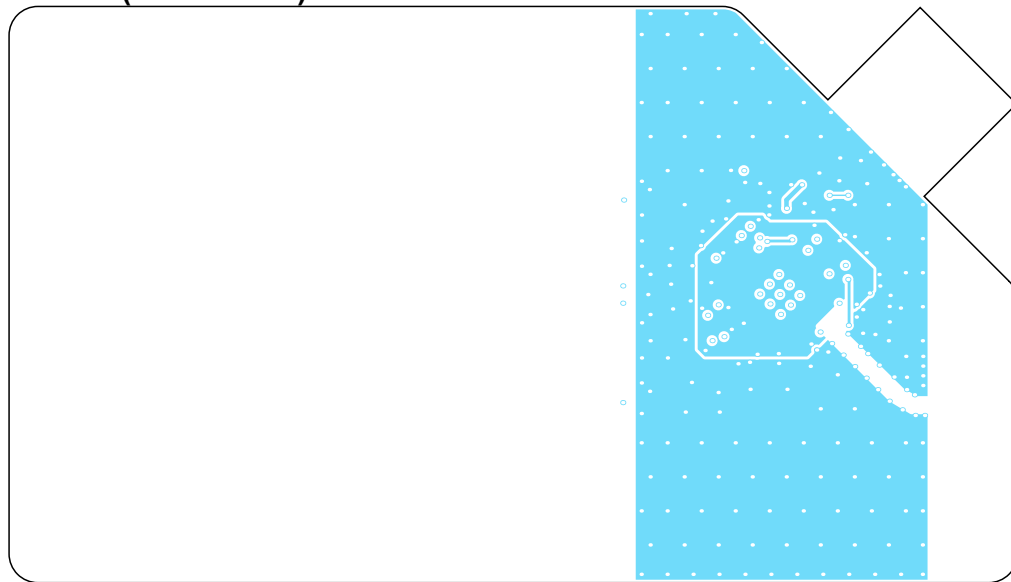
L2-GND (Scale 1.5:1)



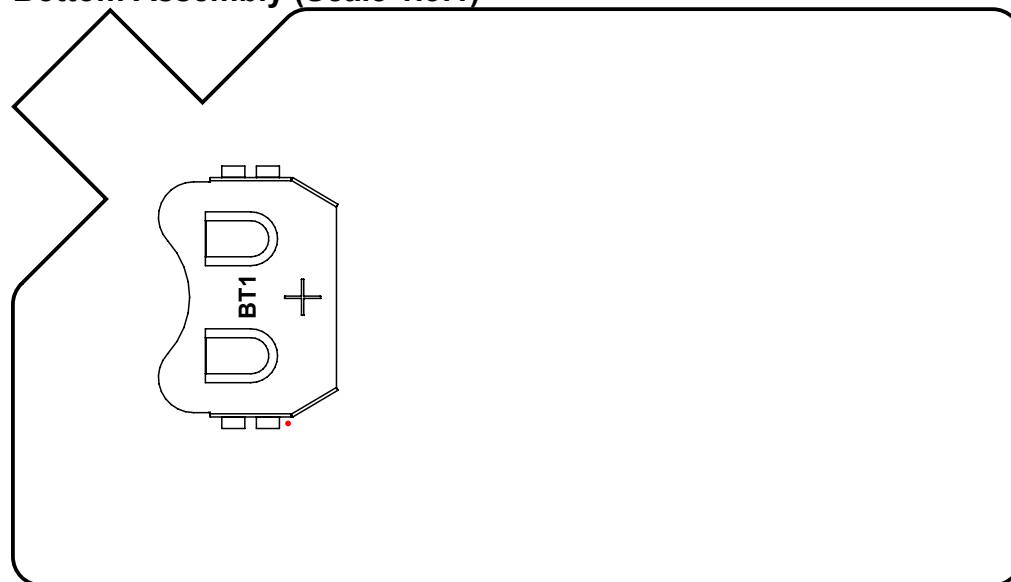
Drill Drawing View (Scale 1.5:1)



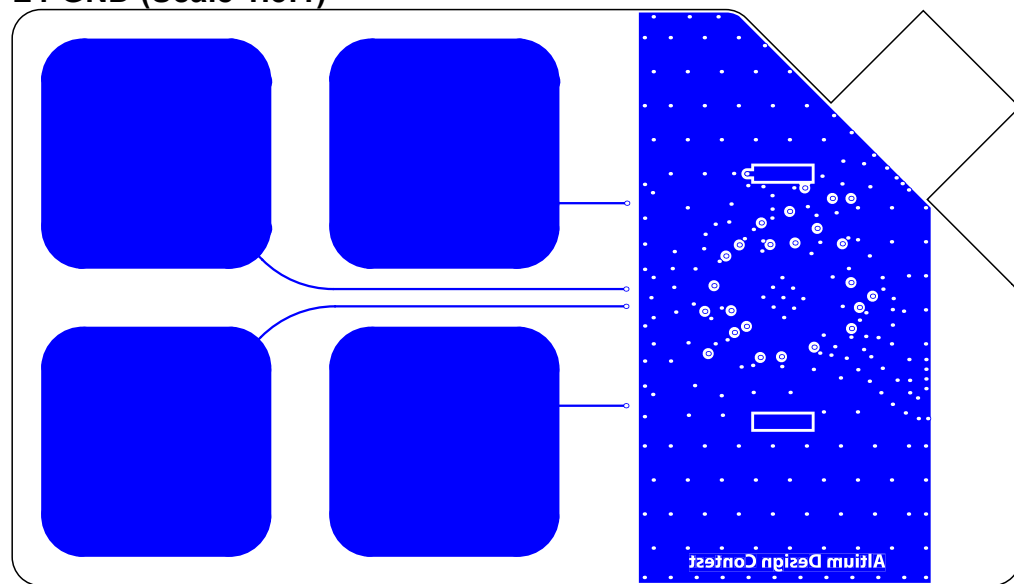
L3-SIG (Scale 1.5:1)



Bottom Assembly (Scale 1.5:1)



L4-GND (Scale 1.5:1)



Layer Stack Legend

Material	Layer	Thickness	Dielectric Material	Type	Gerber
	Top Overlay			Legend	GTO
Surface Material	Top Solder	0.0100mm	Solder Resist	Solder Mask	GTS
Copper	L1-SIG	0.0350mm		Signal	GTL
Prepreg		0.0994mm	7628	Dielectric	
Copper	L2-GND	0.0152mm		Signal	G1
		1.9000mm	FR-4	Dielectric	
Copper	L3-SIG	0.0152mm		Signal	G2
Prepreg		0.0994mm	7628	Dielectric	
Copper	L4-GND	0.0350mm		Signal	GBL
Surface Material	Bottom Solder	0.0100mm	Solder Resist	Solder Mask	GBS
	Bottom Overlay			Legend	GBO
Total thickness: 2.2192mm					

Notes:

1. Soldermask color: Black
2. Silkscreen color: White
3. Surface finish: ENIG 1U"
4. Board thickness per layer stackup
5. Impedance-controlled transmission lines shall be adjusted by the manufacturer when a different stackup is used
6. Vias without soldermask opening shall be plugged

Drill Table

Symbol	Count	Hole Size	Plated	Via / Pad	Hole Tolerance
□	240	0.30mm	Plated	Via	
240 Total					

Transmission Line Structure Table

Transmission Line	Target Impedance	Calculated Impedance	Trace layer	Wide Trace Width	Narrow Trace Width	Gap	Reference layers	Clearance	Target Tolerance
Diff Coated Coplanar Waveguide With Ground	90	90.02	L1-SIG	0.15mm	0.15mm	0.15mm	L2-GND	0.15mm	10%
Coated Coplanar Waveguide With Ground	50	49.98	L1-SIG	0.59mm	0.59mm		L4-GND	0.13mm	10%
Diff Coated Coplanar Waveguide With Ground	90	90.02	L4-GND	0.15mm	0.15mm	0.15mm	L3-SIG	0.15mm	10%
Coated Coplanar Waveguide With Ground	50	49.98	L4-GND	0.59mm	0.59mm		L1-SIG	0.13mm	10%

Bill Of Materials

Line #	Designator	Name	Quantity
1	BT1	3028	1
2	C1, C2, C3, C4, C7, C8, C9, C10, C19	0.1μF	9
3	C5	2.2μF	1
4	C6, C11, C13, C16, C20	1.0μF	5
5	C12	2.2nF	1
6	C14	0.7pF	1
7	C15, C21, C22	DNP	3
8	C17, C18	4.7μF	2
9	C23, C24	22μF	2
10	D1	LTST-C19HE1WT	1
11	D2	CFSH05-20L	1
12	FB1	BLM15PX121SN1D	1
13	L1	2.2nH	1
14	L2, L3	10μH	2
15	R1	56R	1
16	R2, R3	22R	2
17	R4	0R	1
18	R5, R6, R7, R8	470R	4
19	U1	nRF5340-QKAA	1
20	U2	TPD4E05U06	1
21	V1, V2, V3, V4	LXES15AAA1-133	4
22	X1	32MHz	1
23	X2	32.768kHz	1

Programming Testpads

