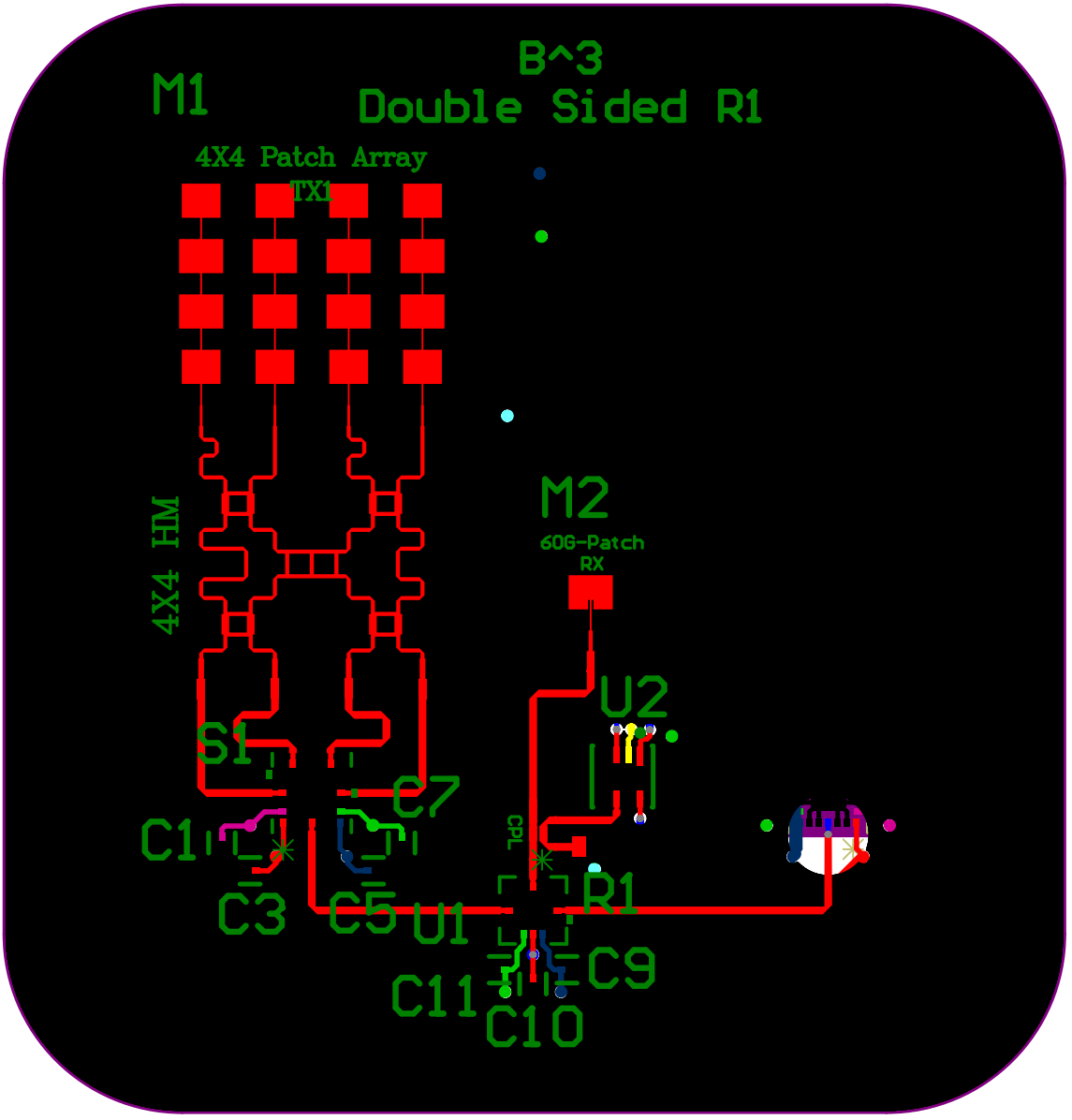
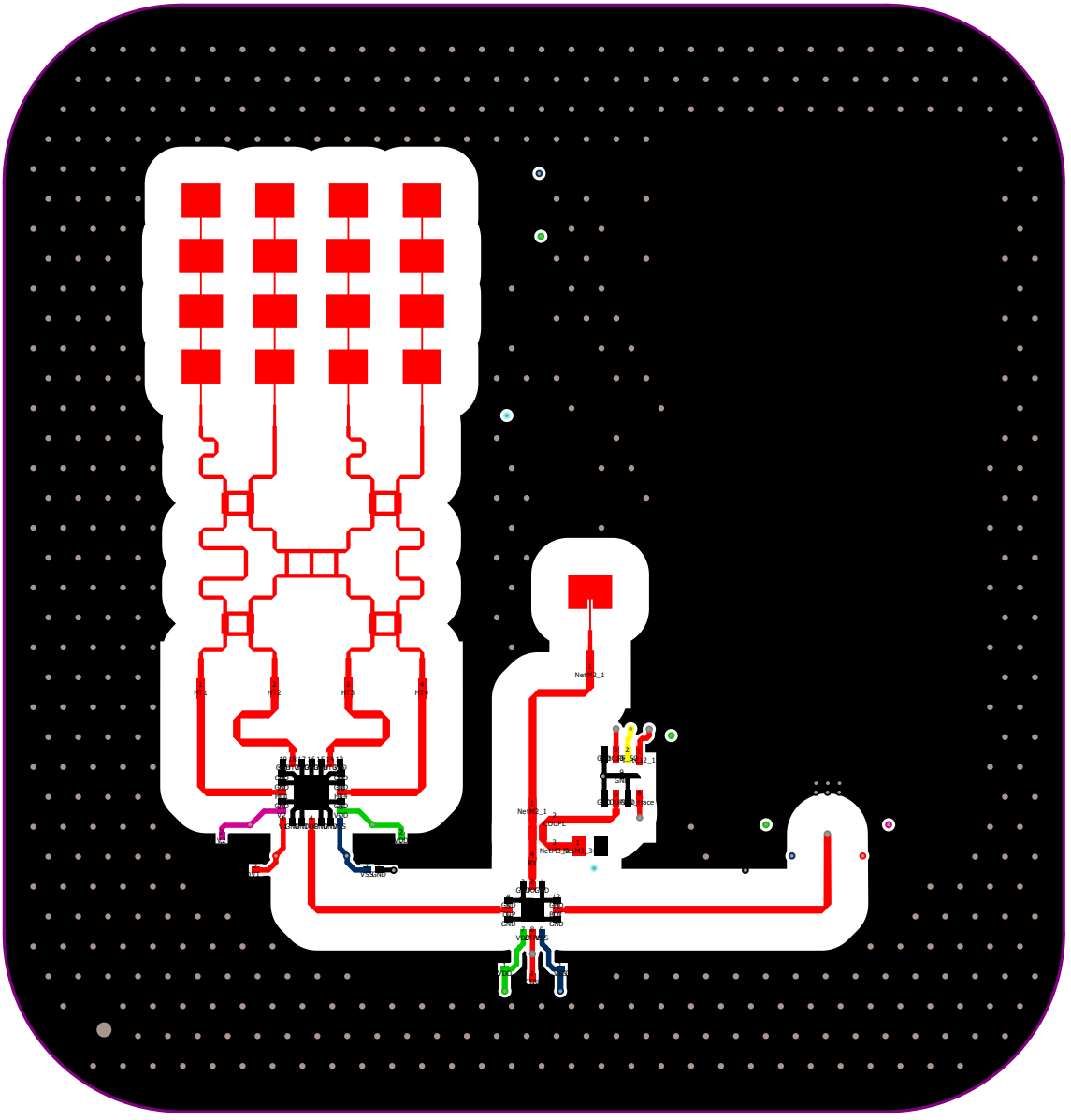
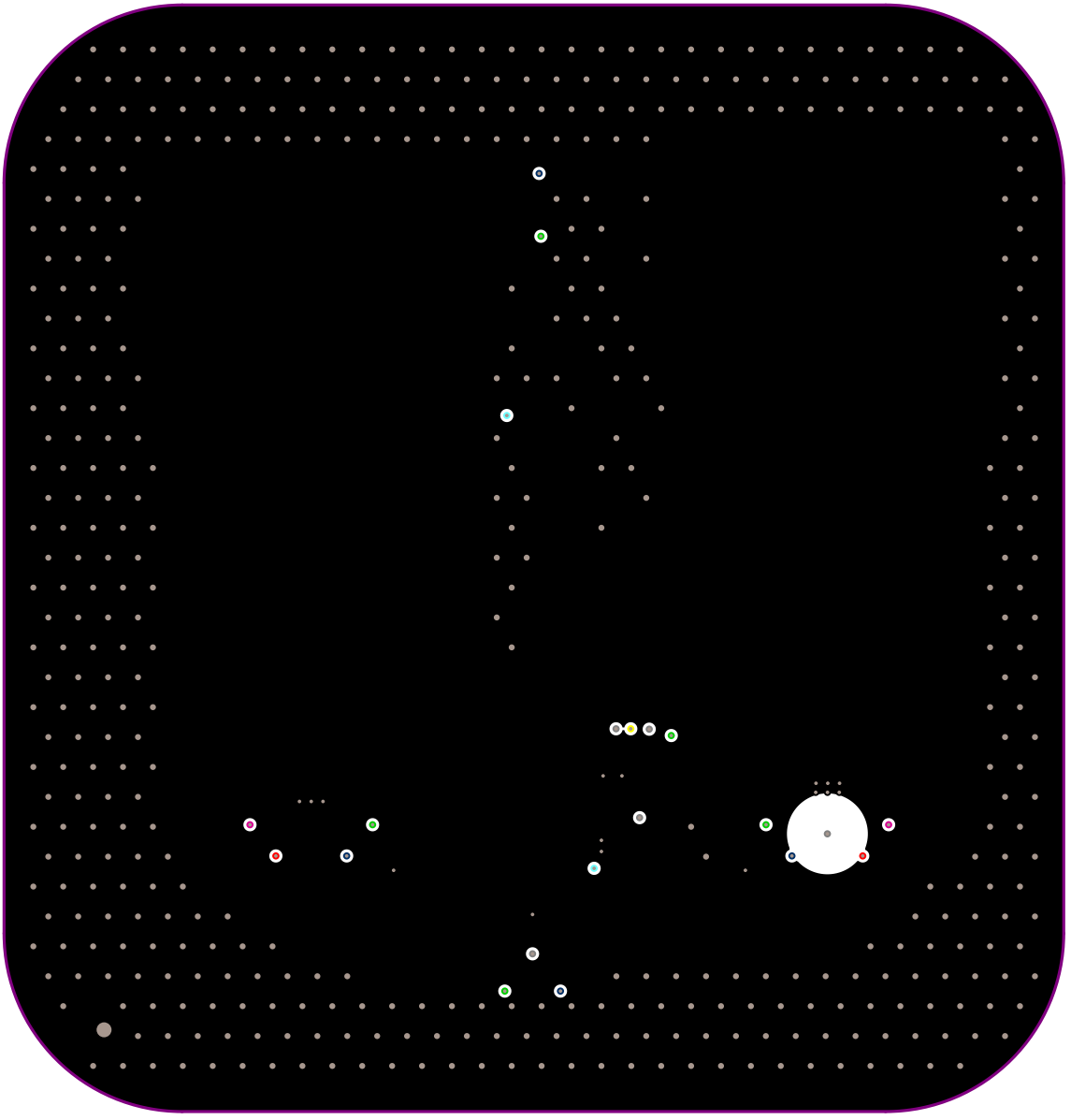
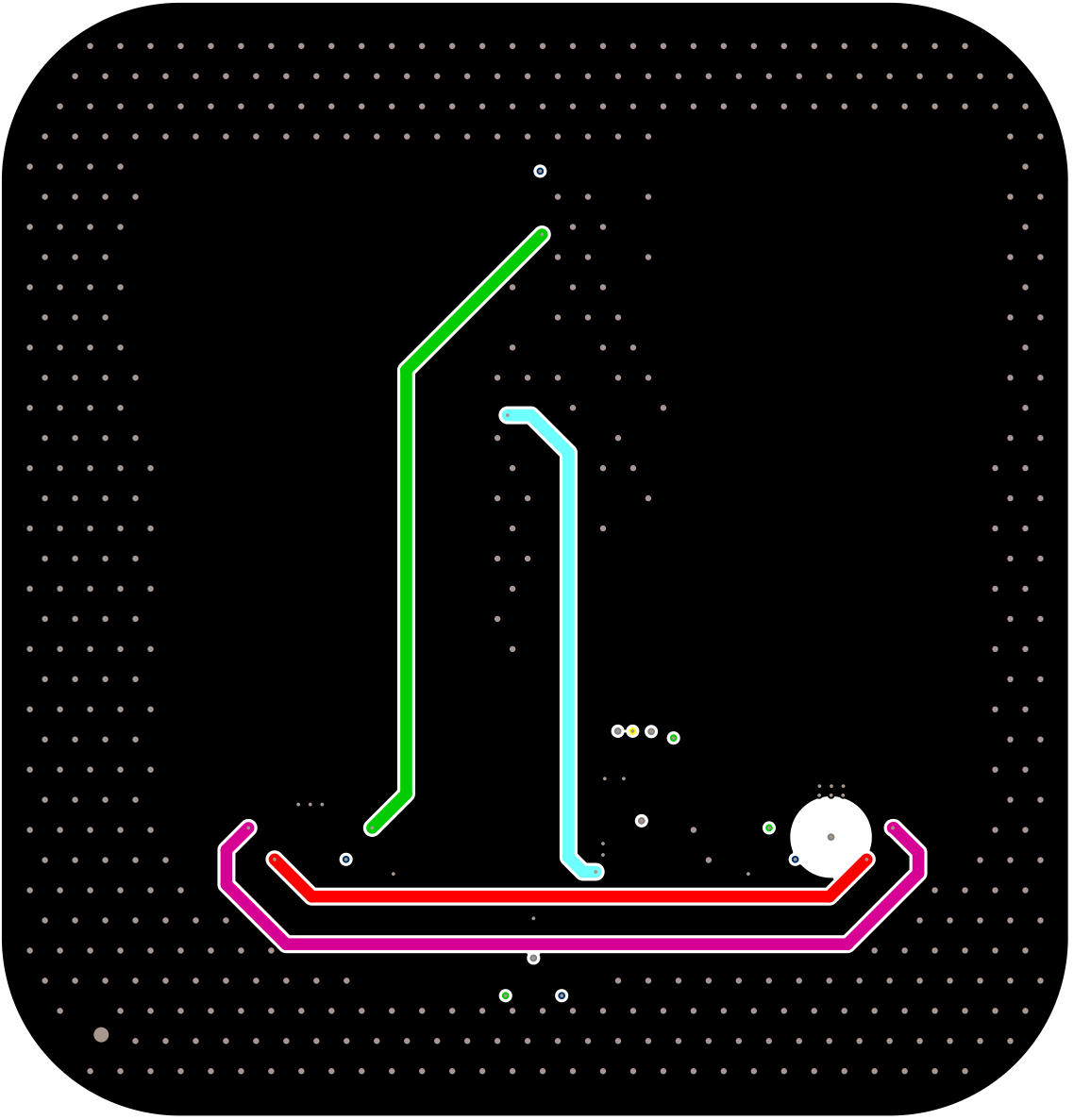
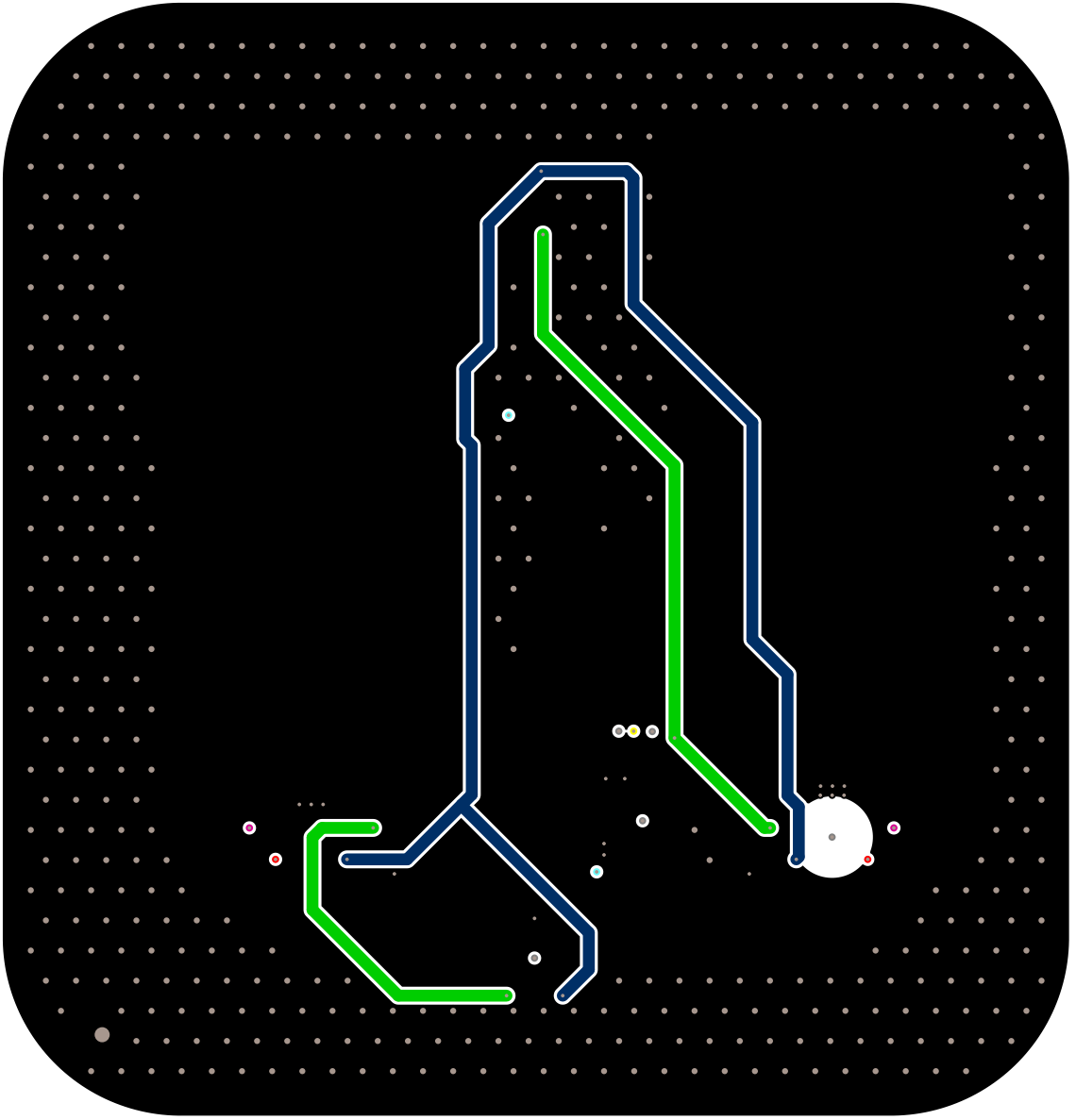
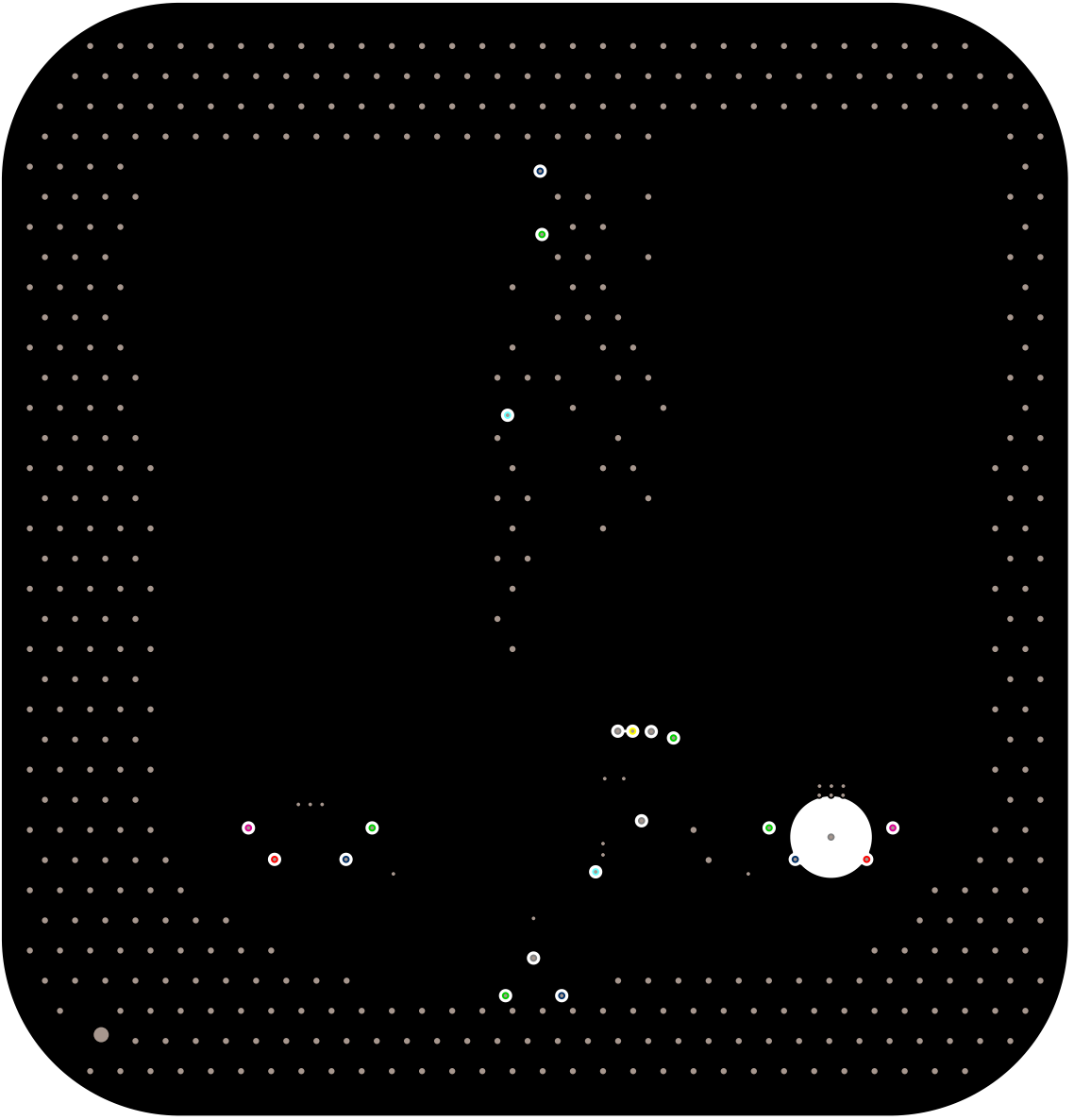

B^3
Double Sided R1
M1
4X4 Patch Array
TX1
4X4 HM
M2
60G-Patch
RX
U2
S1
C7
C1
C3
C5
U1
R1
C9
C11
C10

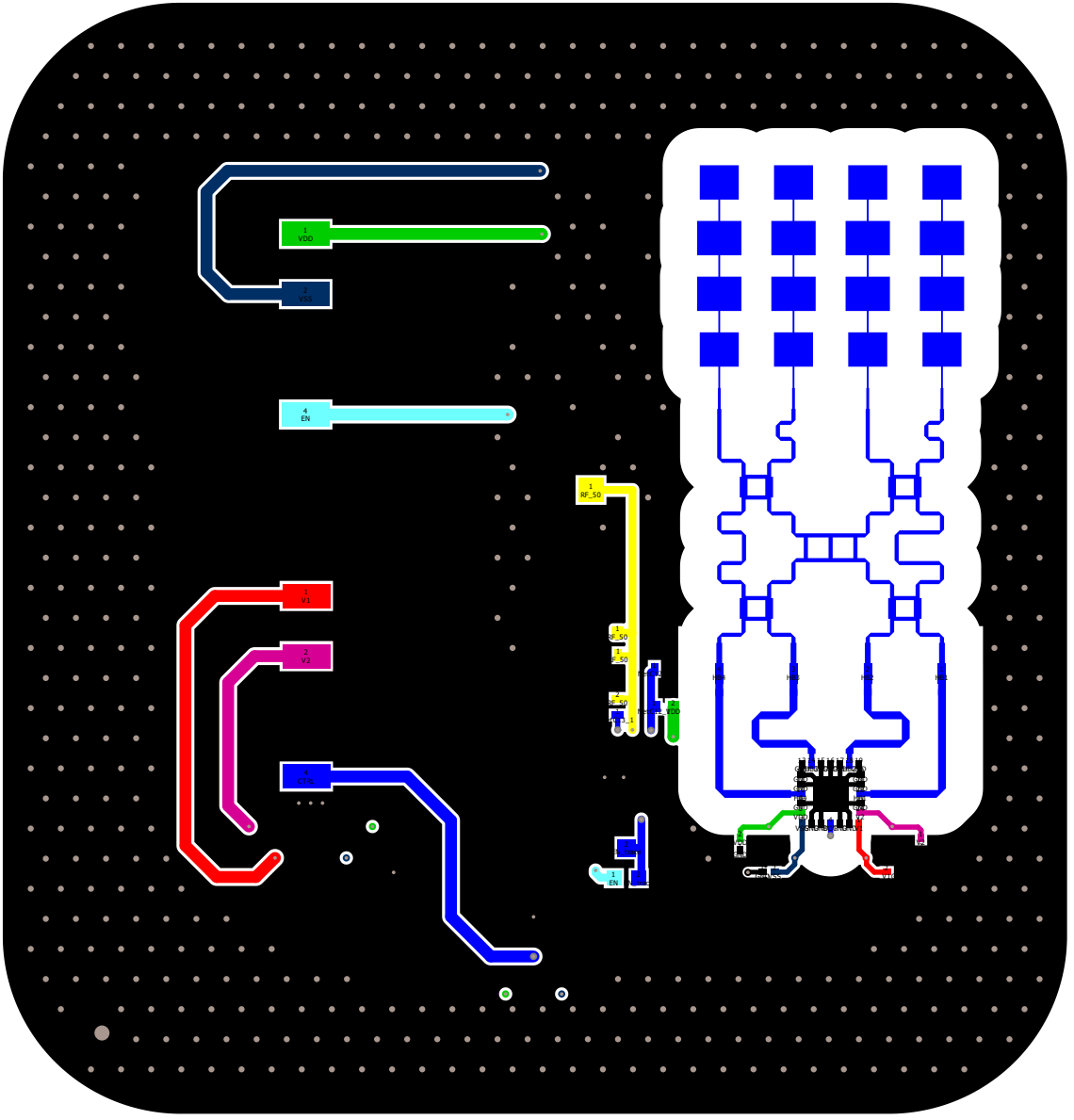








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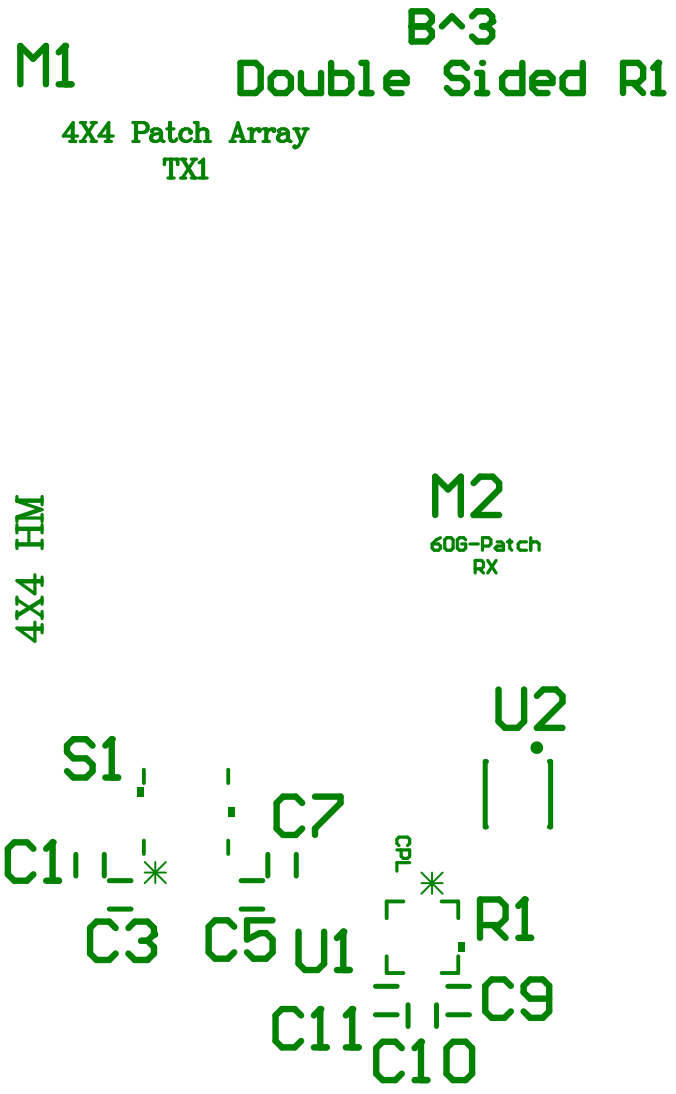
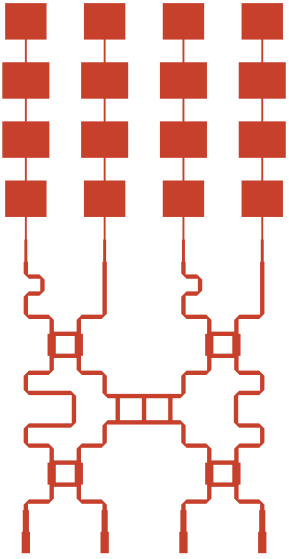
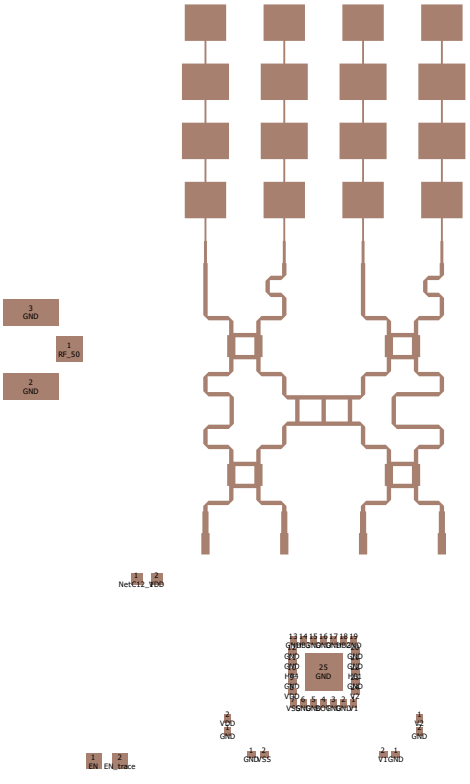
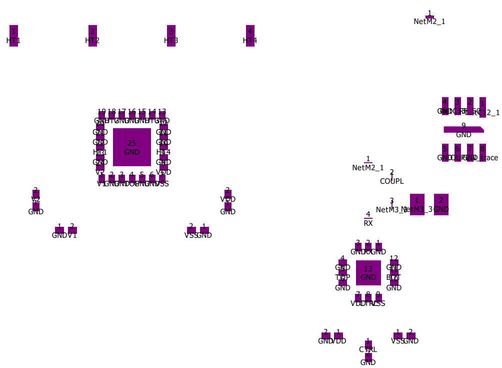
VDD
2
VSS
4
EN
1
RF_50
1
V1
2
V2
4
CTRL
1
EN

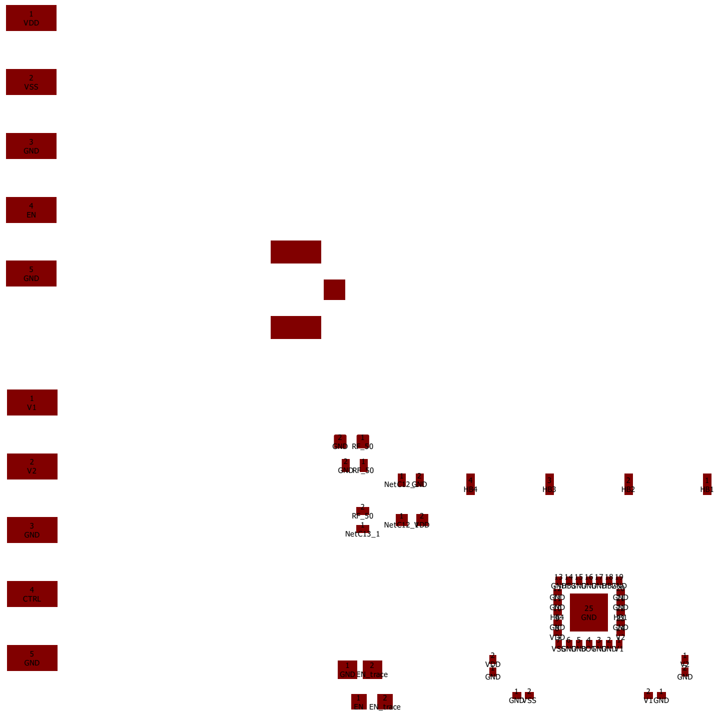

B^3
Double Sided R1
M1
4X4 Patch Array
TX1
M2
60G-Patch
RX
4X4 HM
U2
S1
C7
C1
C3
C5
U1
R1
C9
C11
C10

M4
4X4 Patch Array
TX2
J3
VDD
VSS
GND
EN
GND
J1
MH 4X4
V1
V2
GND
CTRL
GND
P3
C14
C13
R2
C8
C15
R4
C4
C6
C2
S2
J2

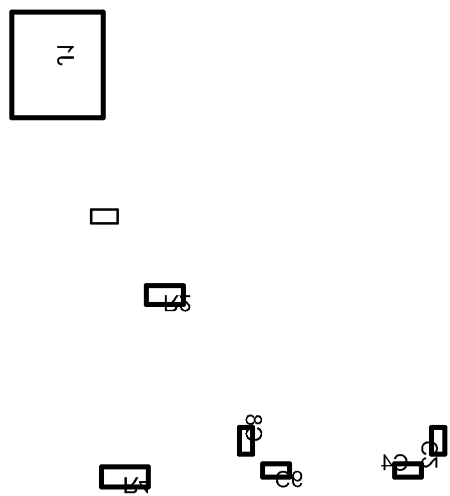

NetM2_1
25
GND
13
GND

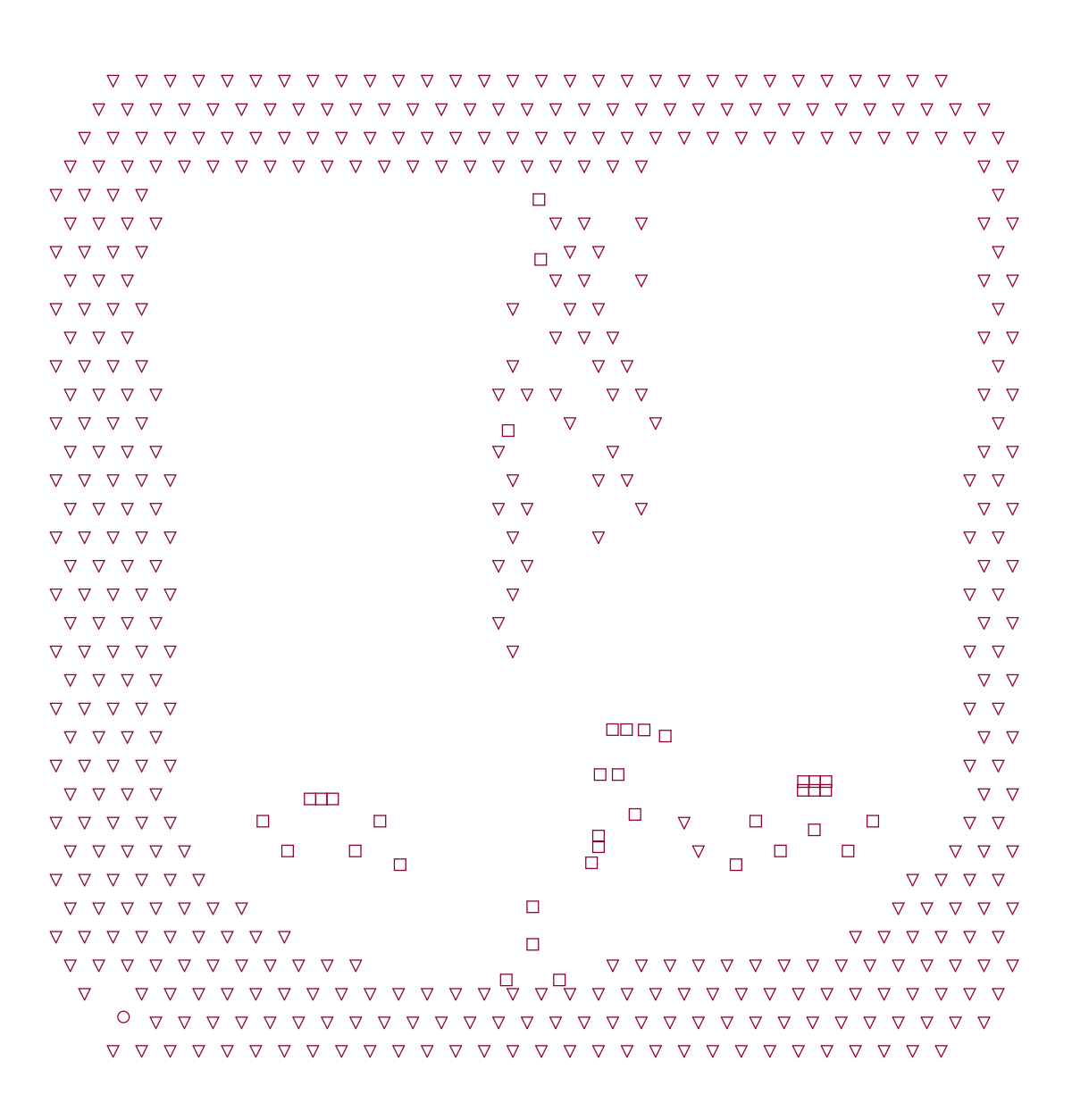

3
GND
1
RF_50
2
GND
1
2
Net-(J1-Pad2)
25
GND
VCO
GND
EN
EN_trace
GND
OS
VT
GND
GND

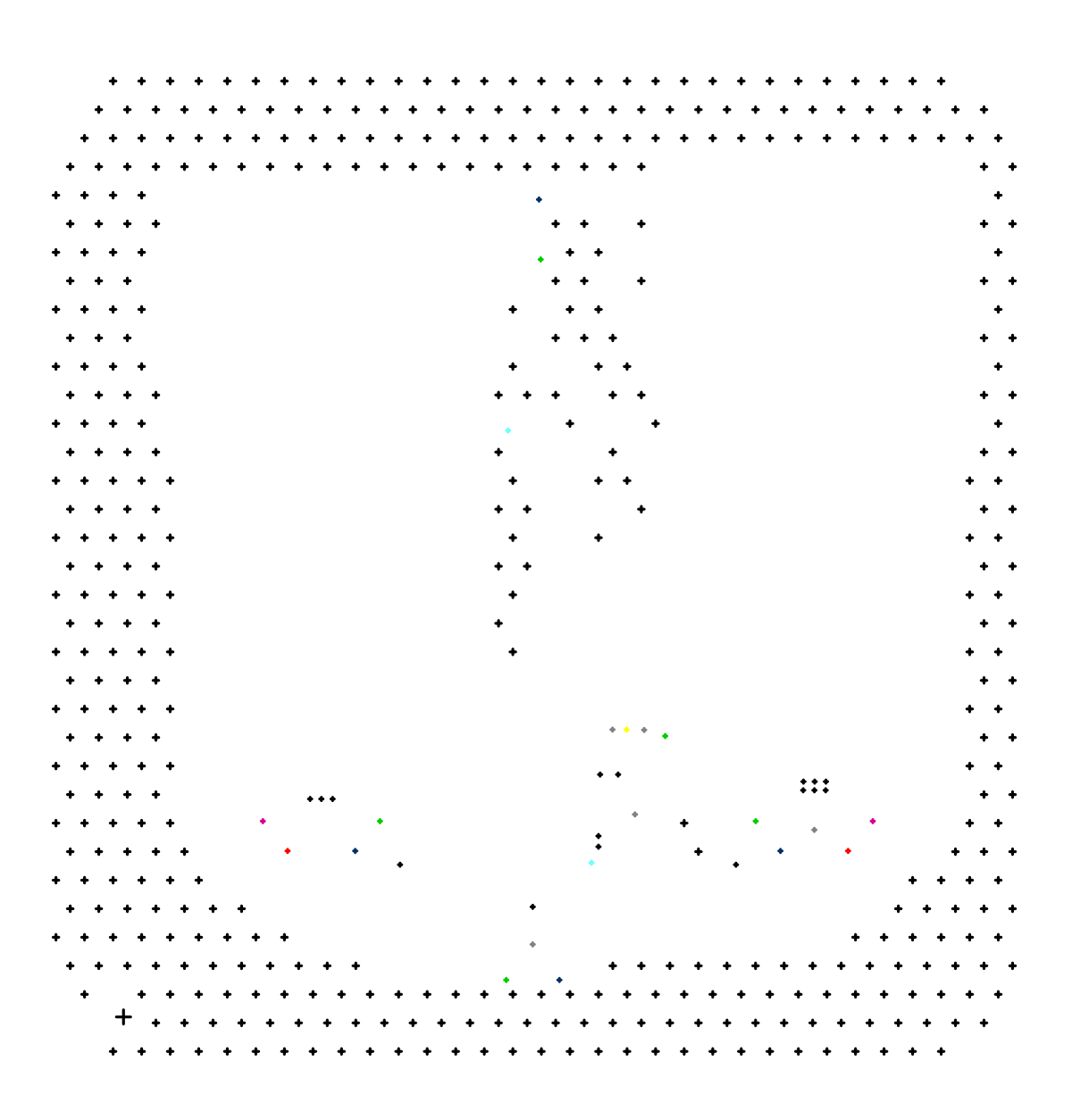

HT1
HT2
HT3
HT4
NetM2_1
25
GND
COUPL
RX
13
CTRL
VDD
VSS

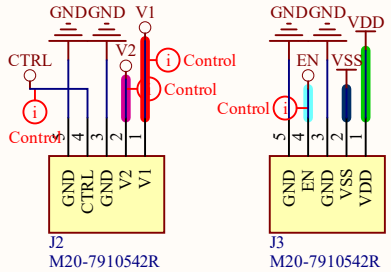

1
VDD
2
VSS
3
GND
4
EN
5
GND
1
V1
2
V2
3
GND
4
CTRL
5
GND
25
GND
NetC13_1
EN_trace

U2
C1
C3
C5
C7
C8
C9
C10
C11









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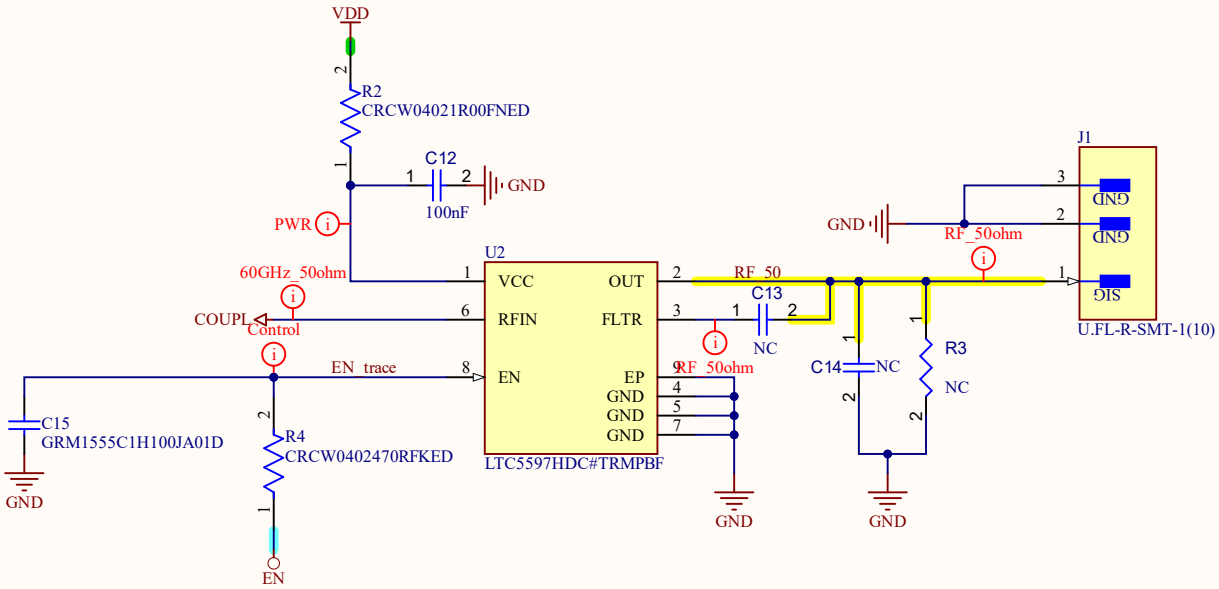
Size A	Number	Revision
Date: 9/29/2025		Sheet of
File: C:\Altium\B^3_FINAL\Power_v2.SchDoc		Drawn By:



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Date: 9/29/2025		Sheet of
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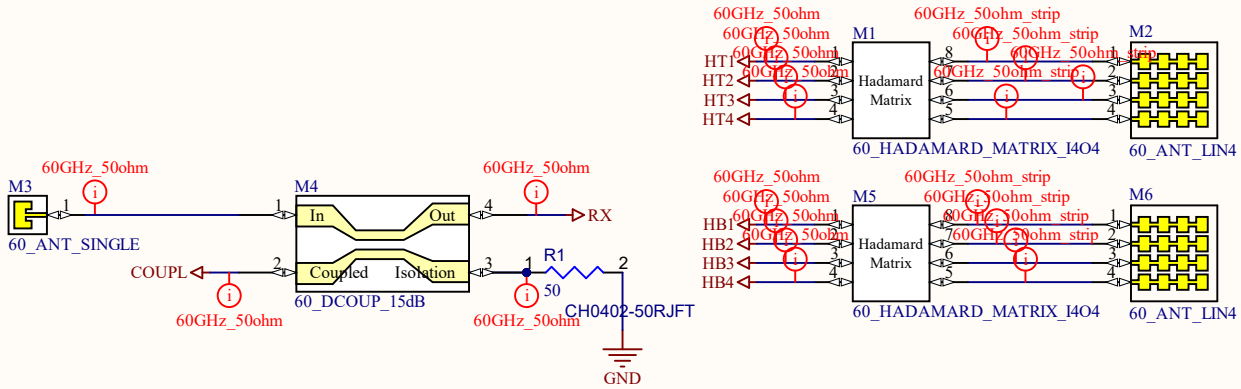

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Date: 9/29/2025		Sheet of
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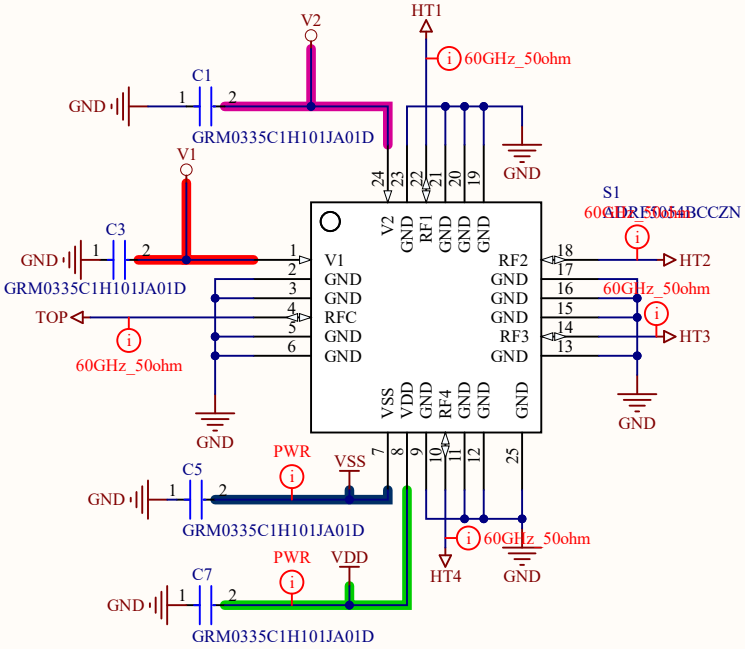
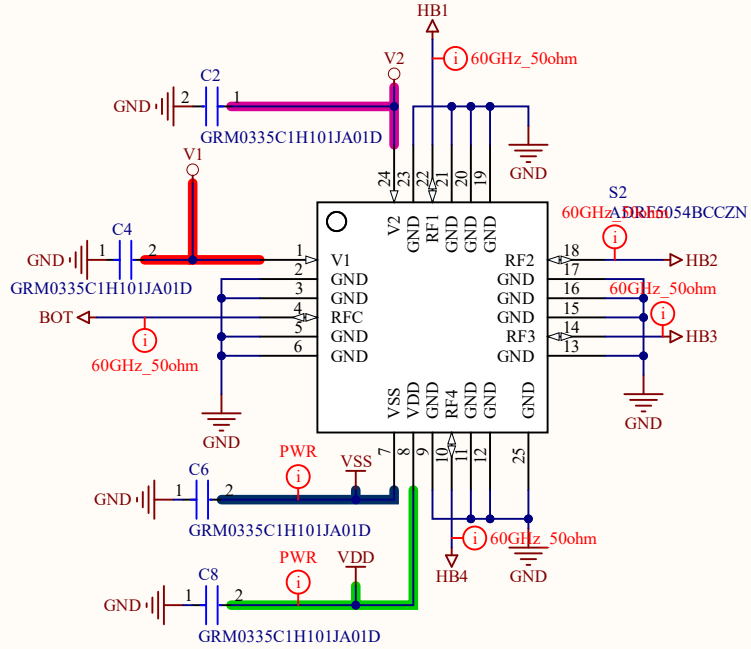
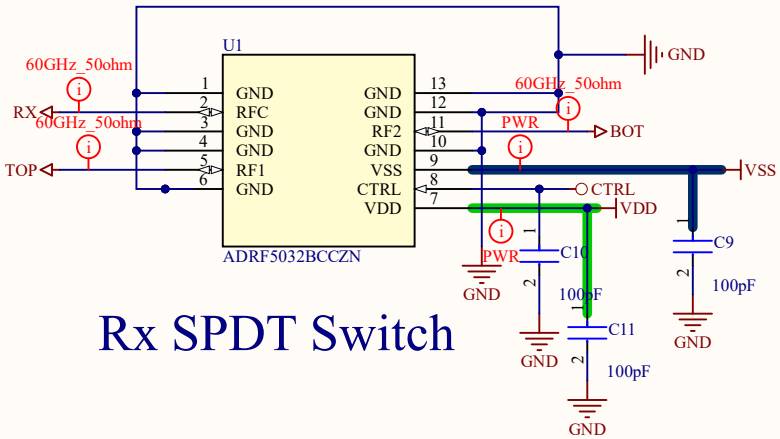


Top SP4T Switch



Bot SP4T Switch

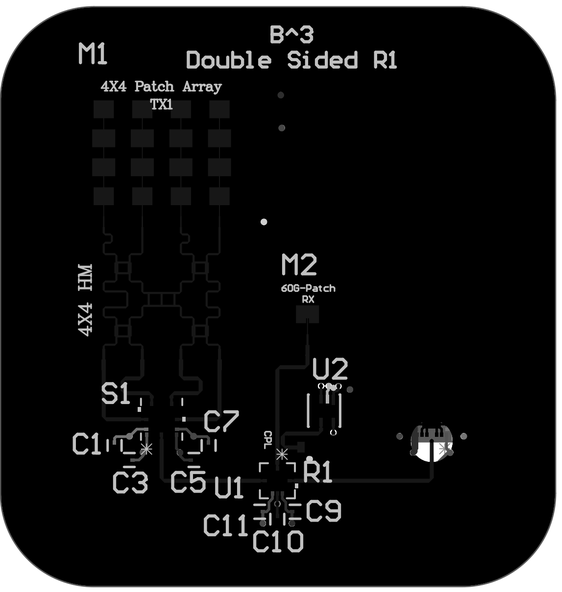


Rx SPDT Switch

Rx SPDT switch chooses between top and bottom SP4T switches. For that, user should switch between CTRL high and low.

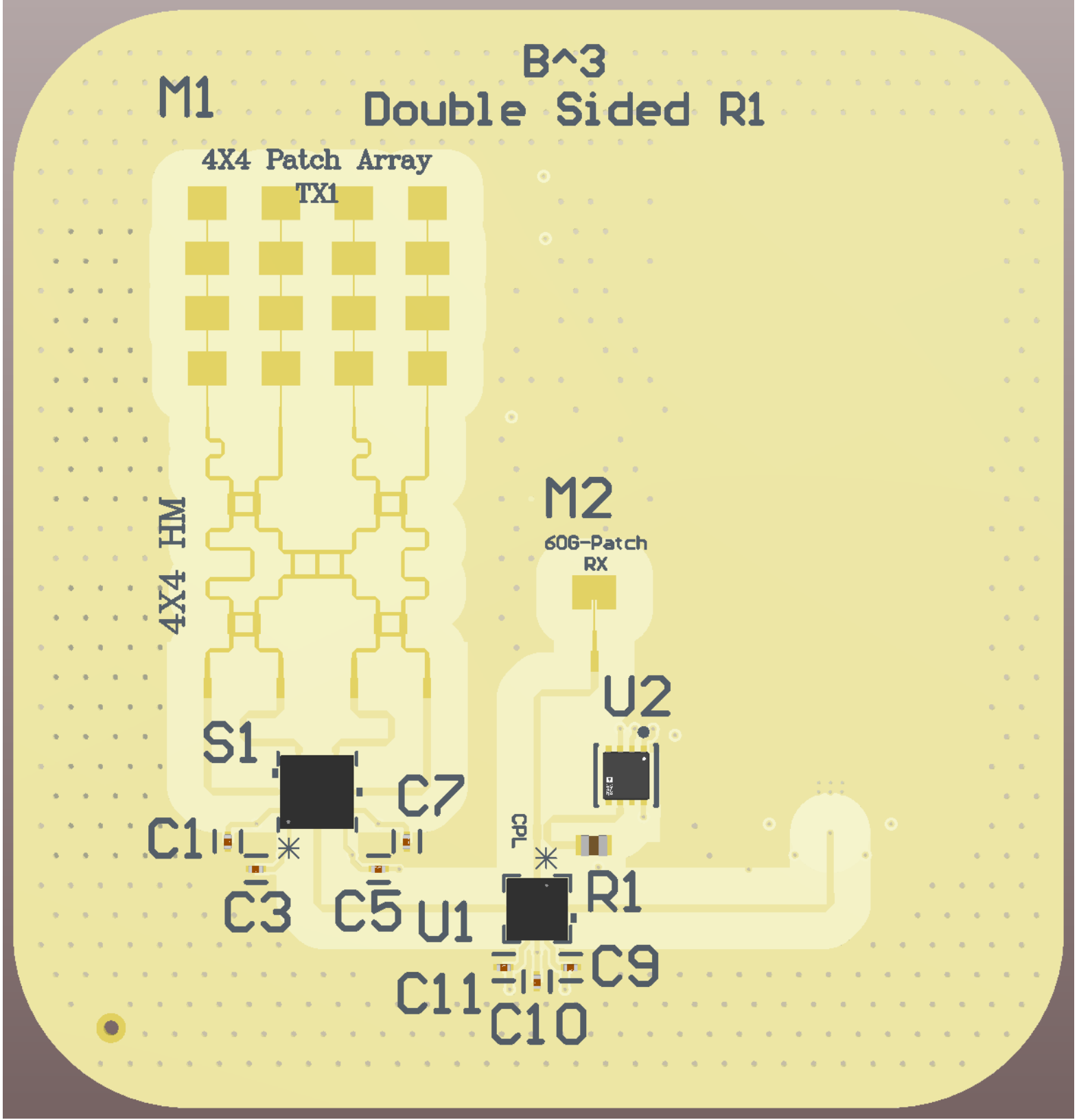
Title		
Size: A	Number:	Revision:
Date: 9/29/2025		Sheet of
File: C:\Altium\..\Switching_Block_v2.SchDoc		Drawn By:

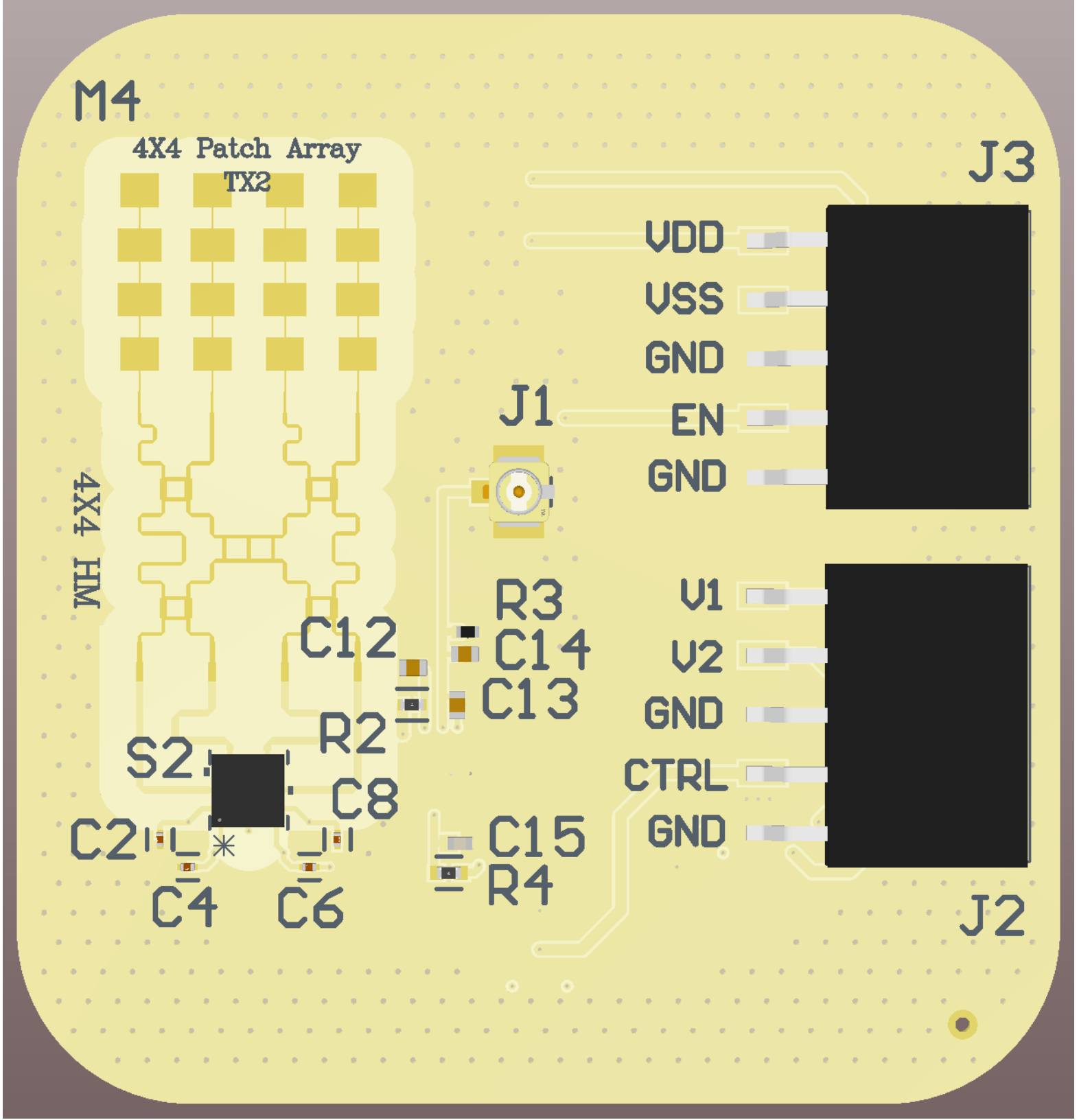
Layer	Name	Material	Thickness	Constant	Board Layer Stack
	Top Overlay				
	Top Solder	Solder Resist	0.40mil	3.5	
1	Top Layer		0.35mil		
	Dielectric 1	Taconic TLX-8	5.00mil	2.55	
2	Layer 1	CF-004	0.69mil		
	Dielectric 2	FR-4	2.30mil	4.4	
3	Layer 2	CF-004	0.69mil		
	Dielectric 3	FR-4	8.00mil	4.4	
4	Layer 3	CF-004	0.69mil		
	Dielectric 4	FR-4	2.30mil	4.4	
5	Layer 4	CF-004	0.69mil		
	Dielectric 5	Taconic TLX-8	5.00mil	2.55	
6	Bottom Layer		0.35mil		
	Bottom Solder	Solder Resist	0.40mil	3.5	
	Bottom Overlay				

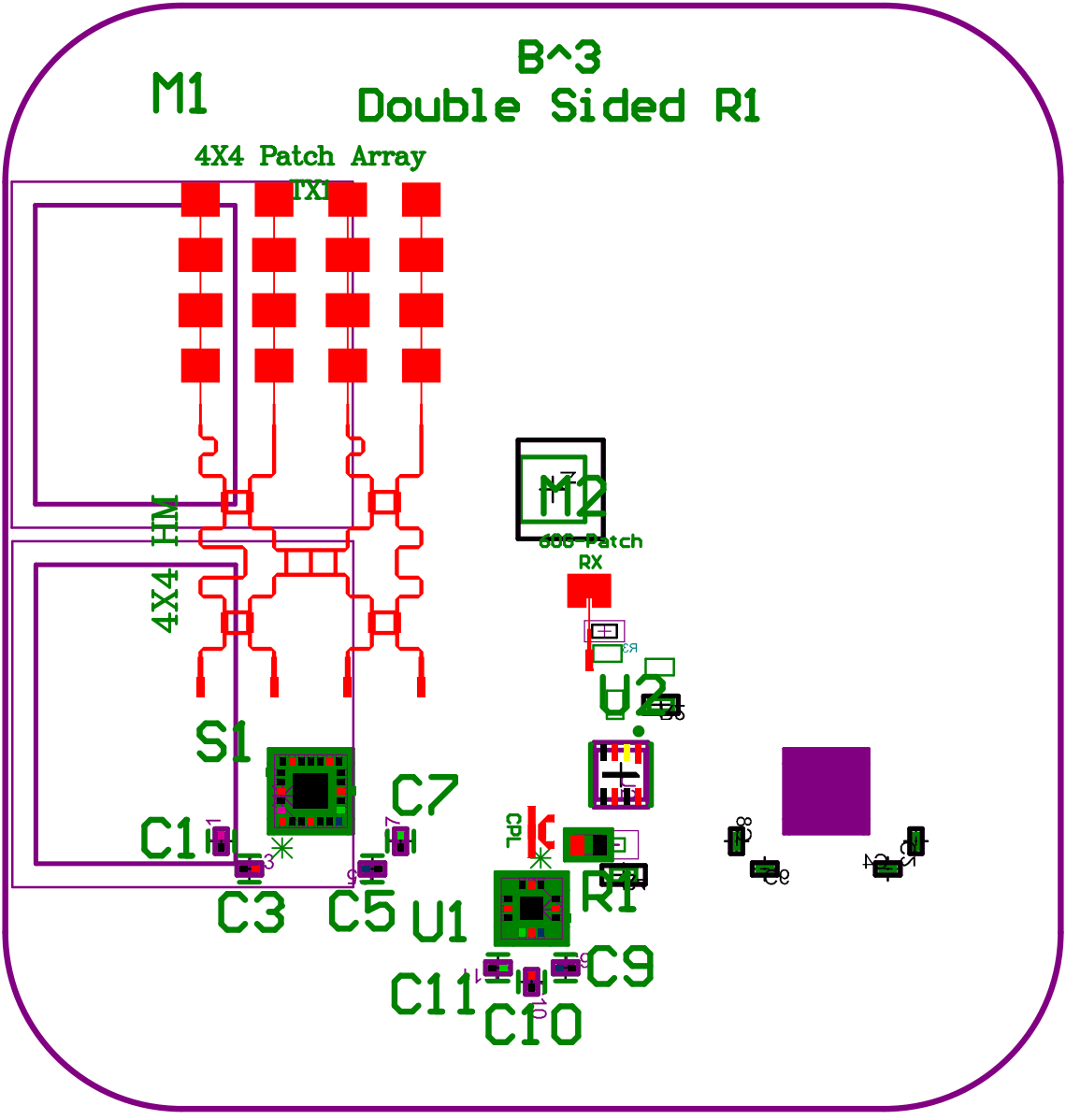


Board Stack Report

Stack Up		Layer Stack			
Layer	Board Layer Stack	Name	Material	Thickness	Constant
1		Top Overlay		0mil	
2		Top Solder	Solder Resist	0.4mil	3.5
3		Top Layer		0.354mil	
4		Dielectric 1	Taconic TLX-8	5mil	2.55
5		Layer 1	CF-004	0.689mil	
6		Dielectric 2	FR-4	2.3mil	4.4
7		Layer 2	CF-004	0.689mil	
8		Dielectric 3	FR-4	8mil	4.4
9		Layer 3	CF-004	0.689mil	
10		Dielectric 4	FR-4	2.3mil	4.4
11		Layer 4	CF-004	0.689mil	
12		Dielectric 5	Taconic TLX-8	5mil	2.55
13		Bottom Layer		0.354mil	
14		Bottom Solder	Solder Resist	0.4mil	3.5
15		Bottom Overlay		0mil	
	Height : 26.864mil				


B^3
Double Sided R1
M1
4X4 Patch Array
TX1
4X4 HM
M2
60G-Patch
RX
U2
S1
C7
C1
CPL
R1
C3
C5
U1
C9
C11
C10


M4
4X4 Patch Array
TX2
4X4 HM
J3
VDD
VSS
GND
EN
GND
J1
R3
C12
C14
C13
R2
S2
C8
C2
C15
R4
C4
C6
V1
V2
GND
CTRL
GND
J2


B^3
Double Sided R1
M1
4X4 Patch Array
TX1
4X4
HM
M2
868 Patch
RX
U2
S1
C1
C3
C5
C7
U1
C9
C10
C11
R1
CPL

M4
4X4 Patch Array
TX2
J3
VDD
VSS
GND
EN
GND
J1
R3
C12
C14
C13
R2
C8
S2
C2
C4
C6
R4
C15
J2
V1
V2
GND
CTRL
GND
S1
C3
C5
C9
C11
C10
MH 4X4

M4
4X4 Patch Array
TX2
J3
VDD
VSS
GND
EN
GND
J1
R3
C12
C14
C13
R2
C8
S2
C2
C4
C6
R4
C15
J2
V1
V2
GND
CTRL
GND
S1
C3
C5
C9
C11
C10
MH 4X4

M4
4X4 Patch Array
TX2
J3
VDD
VSS
GND
EN
GND
J1
R3
C12
C14
C13
R2
C8
S2
C2
C4
C6
R4
C15
J2
V1
V2
GND
CTRL
GND
S1
C3
C5
C9
C11
C10
MH 4X4

M4
4X4 Patch Array
TX2
J3
VDD
VSS
GND
EN
GND
J1
R3
C12
C14
C13
R2
C8
S2
C2
C4
C6
R4
C15
J2
V1
V2
GND
CTRL
GND
S1
C3
C5
C9
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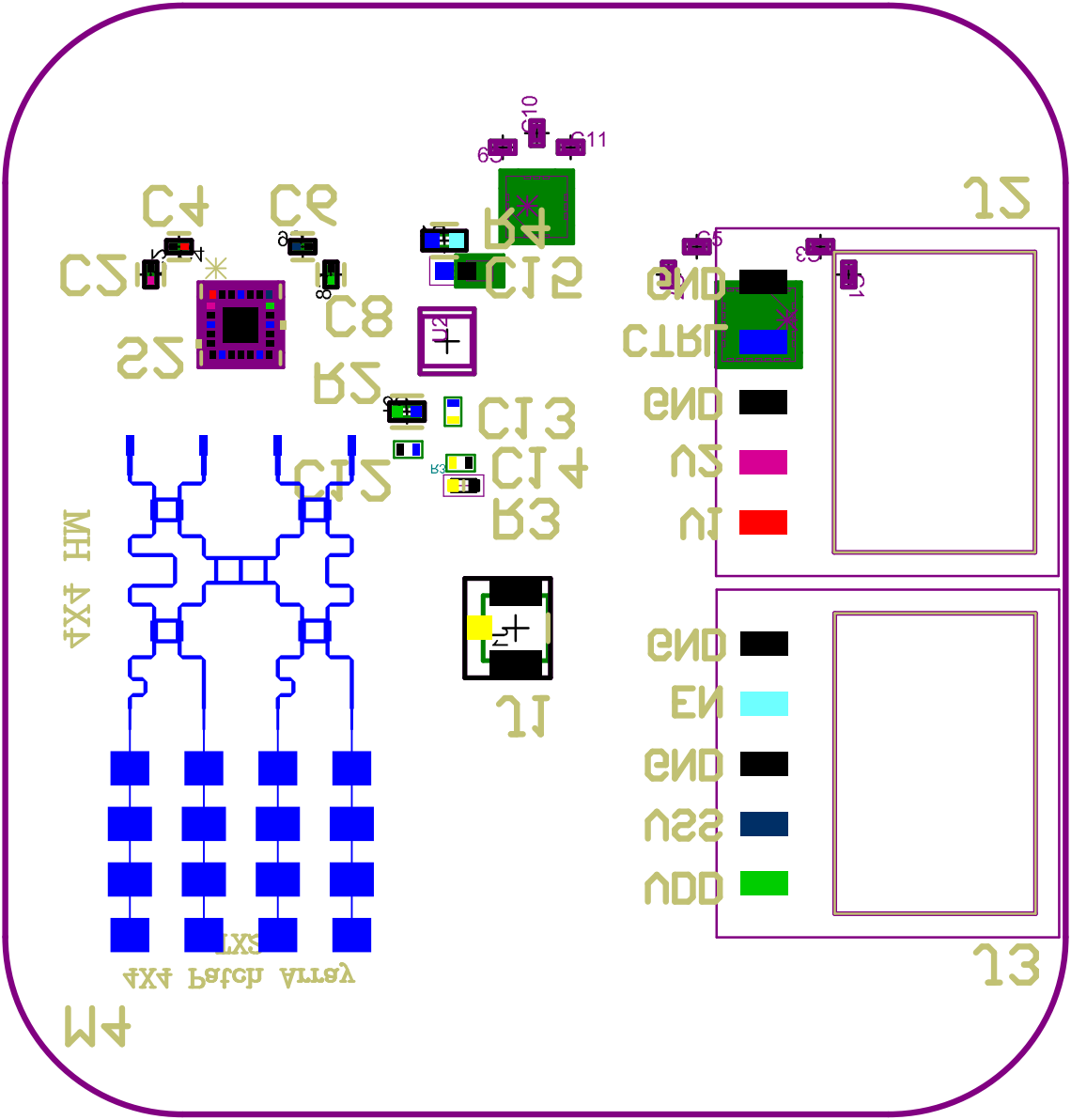
C10
MH 4X4


4x4 Matrix
4x4 Pogo Array
M4
J1
J2
J3
GND
EN
GND
VSS
VDD
GND
CTRL
GND
VS
VI