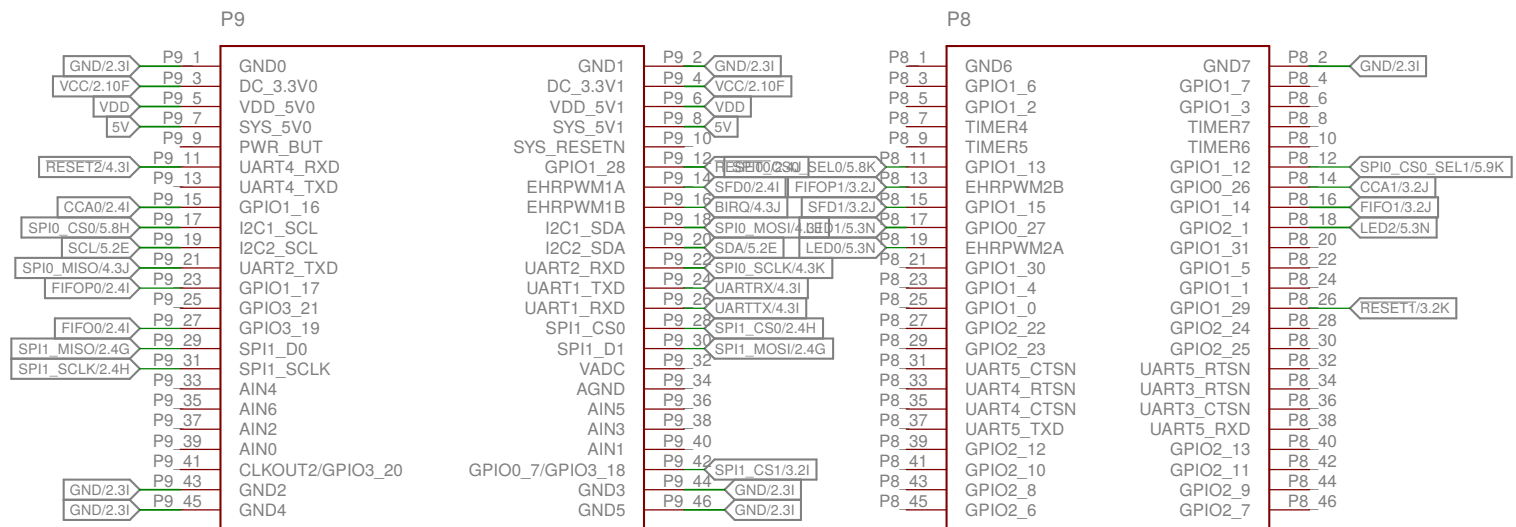
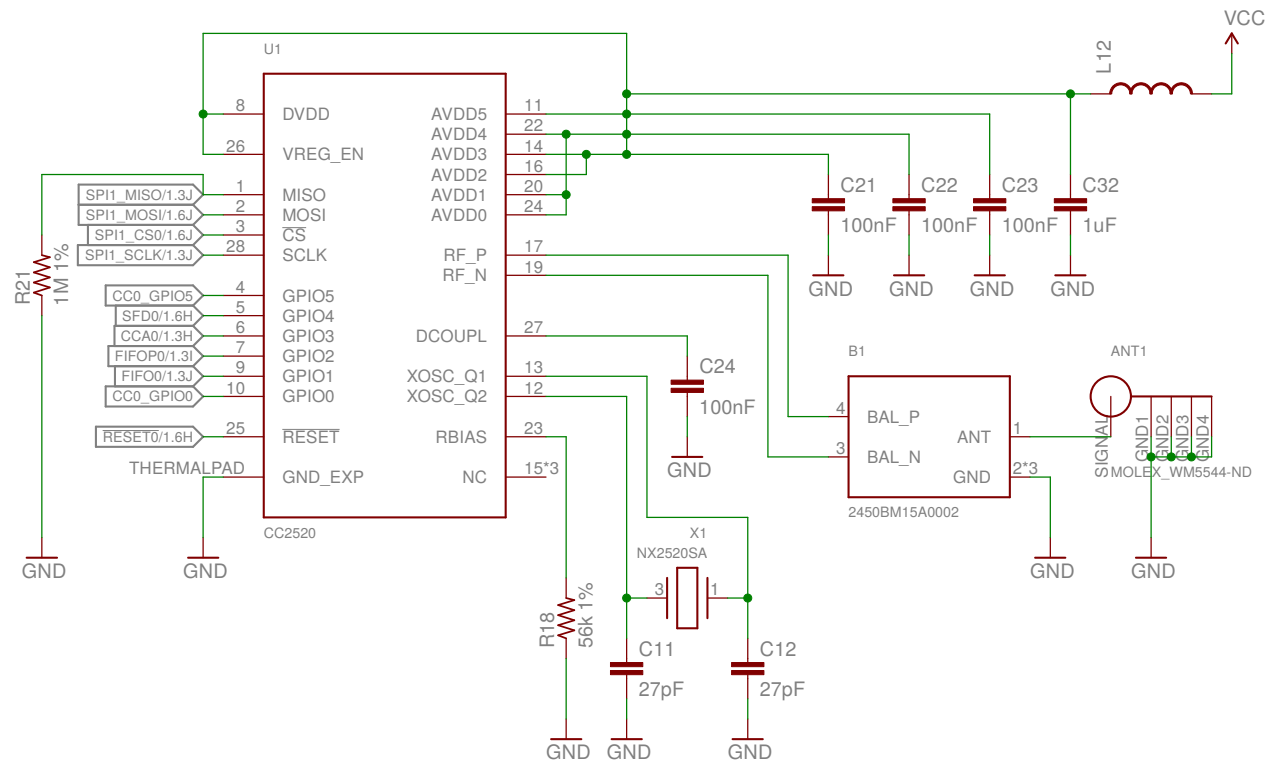


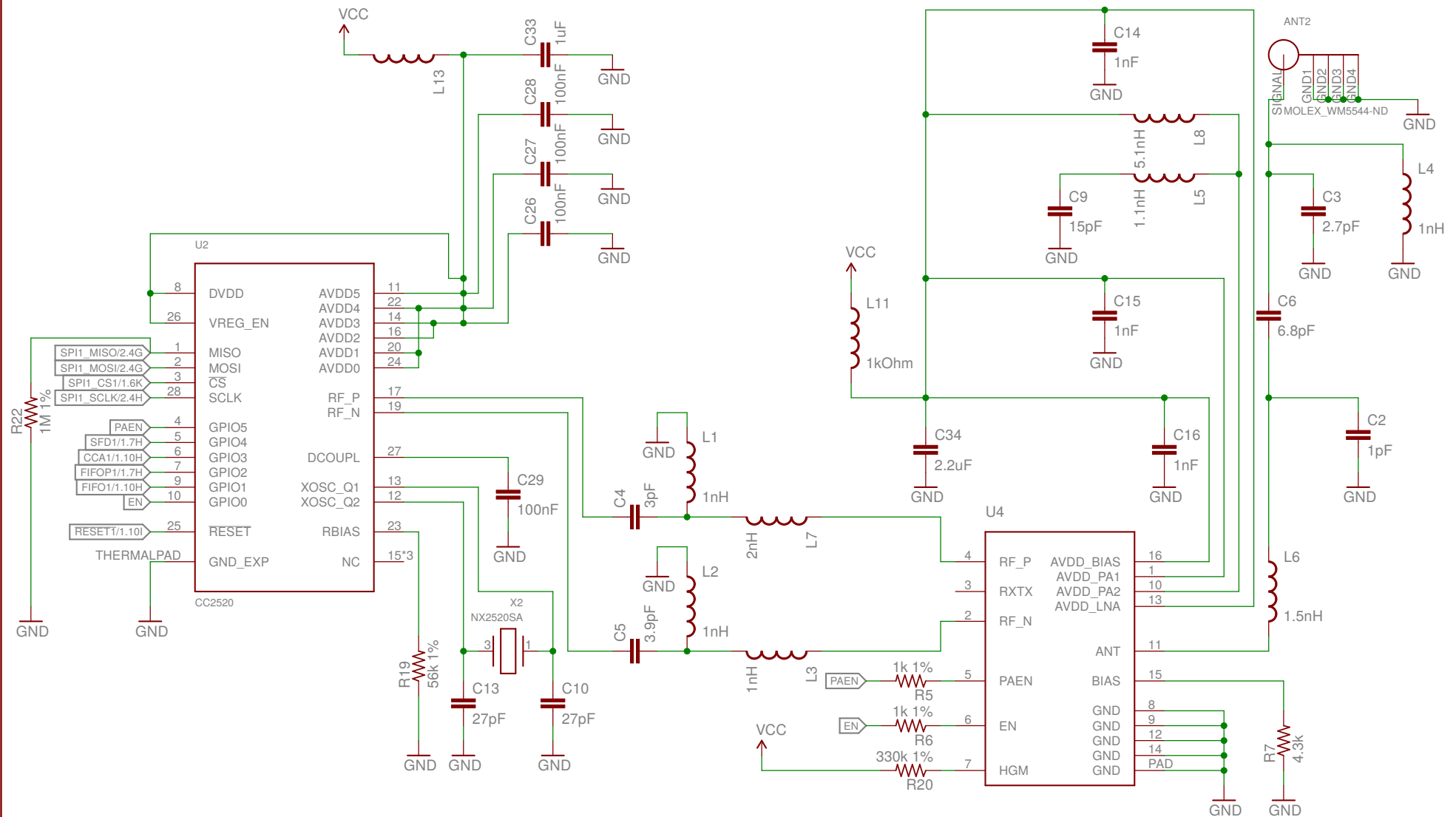
BeagleBone Black Header



CC2520. Index: 0, no amplifier



CC2520. Index: 1, with amplifier



M GAP

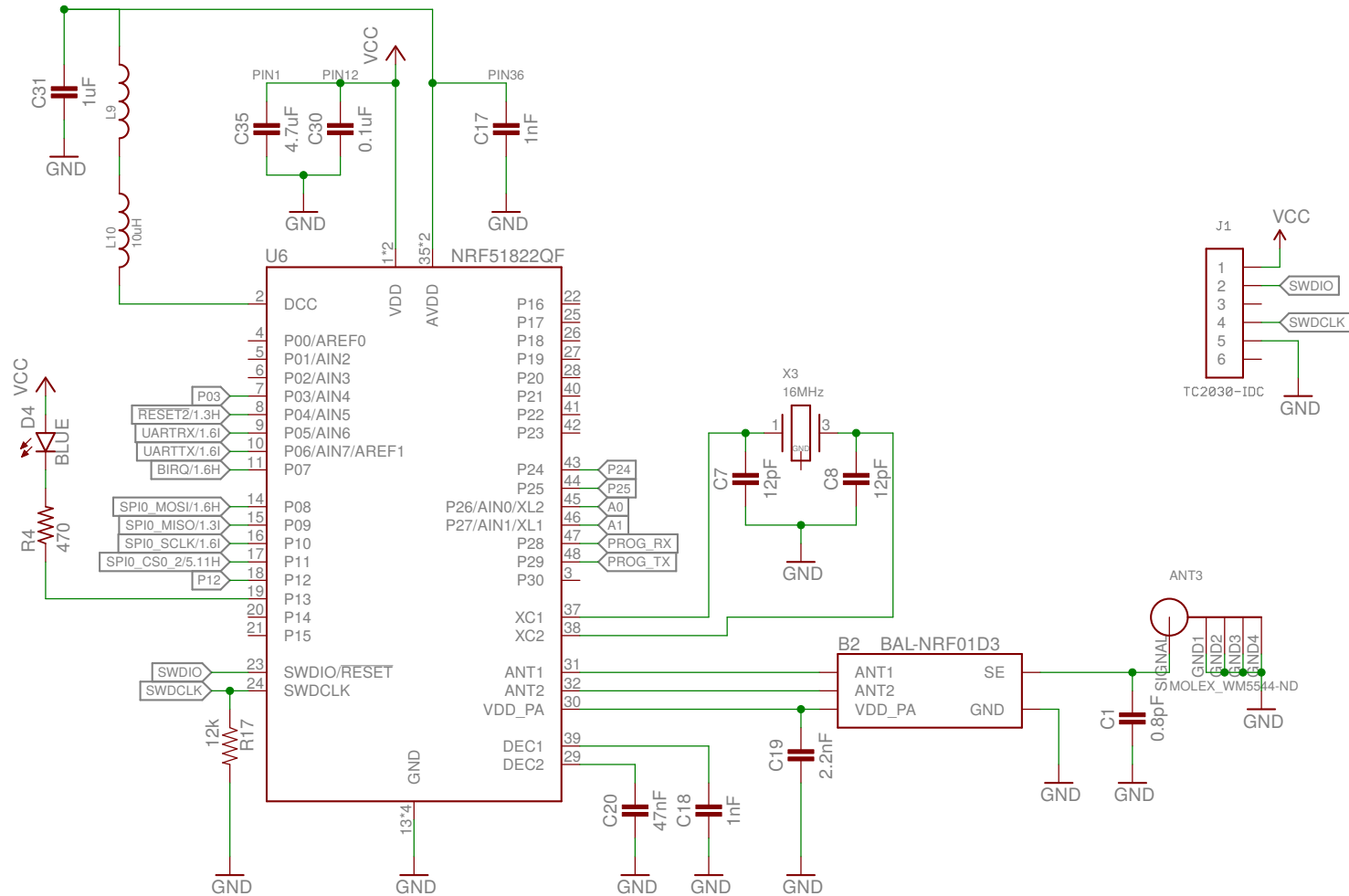
REV:
D

Author: Neal Jackson

Date: 4/3/15 7:02 PM

Sheet: 3/5

nRF51822



M GAP

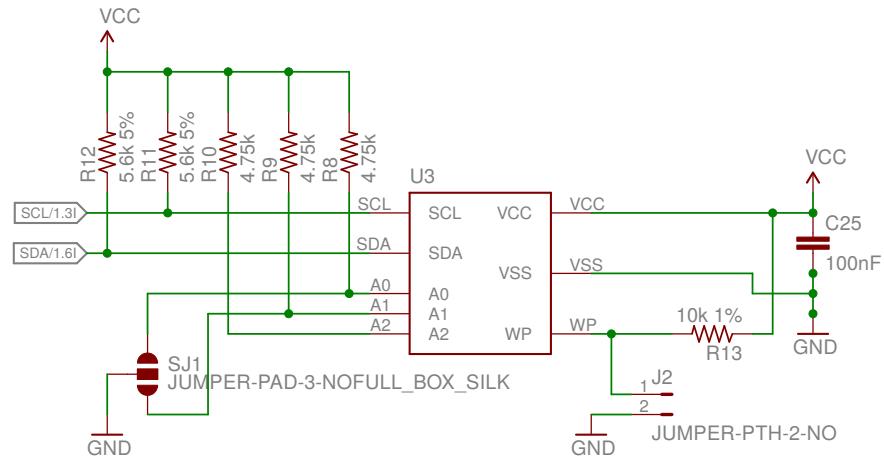
REV:
D

Author: Neal Jackson

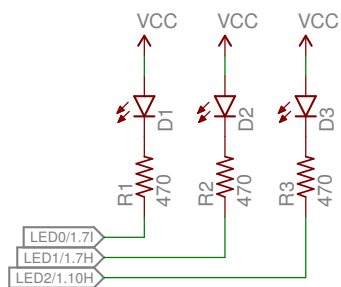
Date: 4/3/15 7:02 PM

Sheet: 4/5

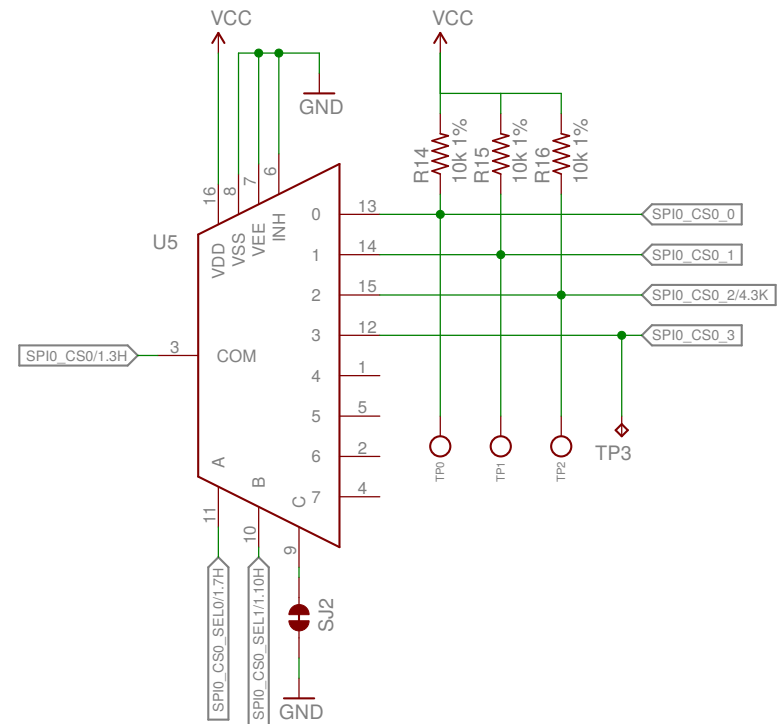
EEPROM



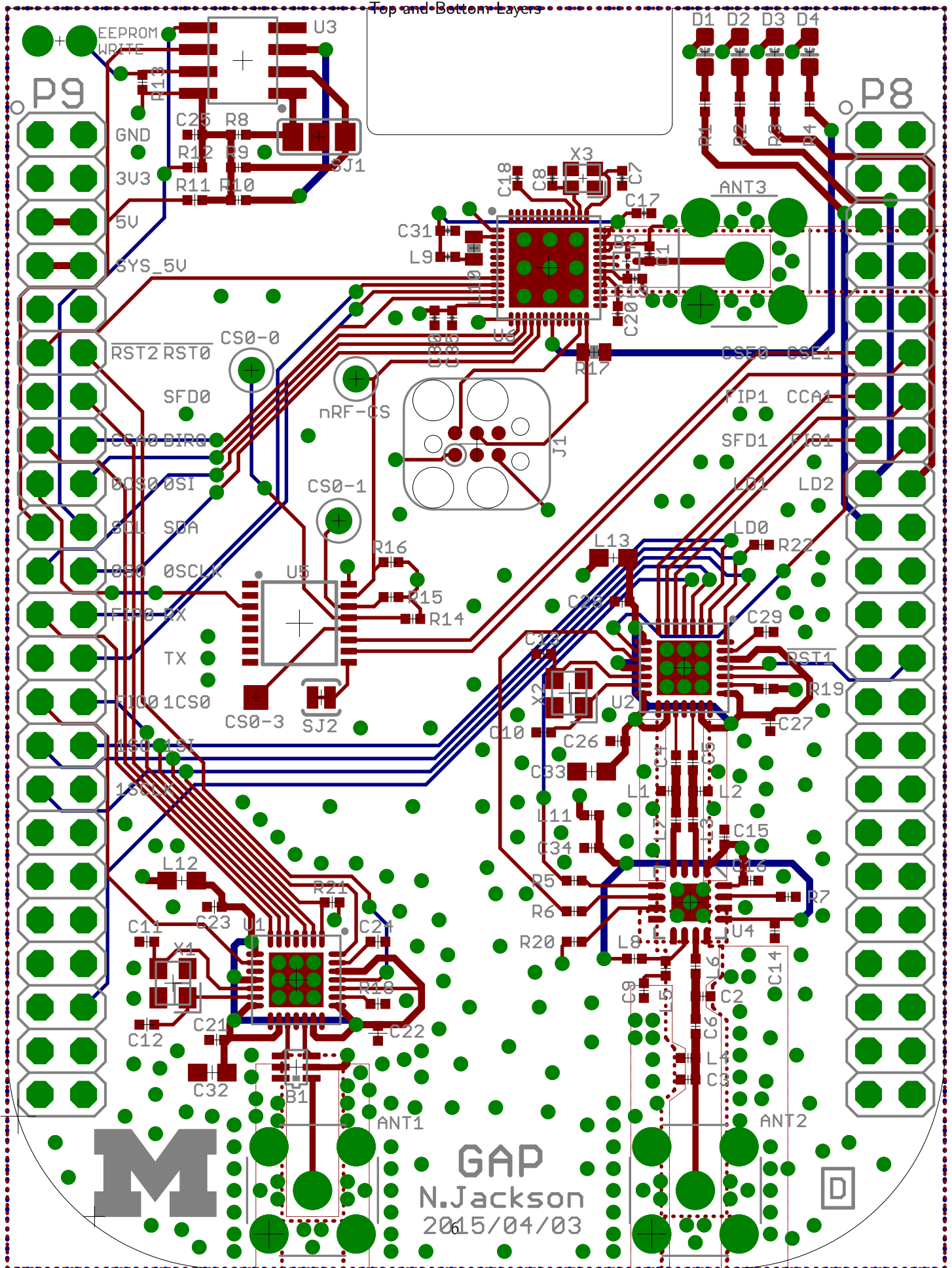
LEDs

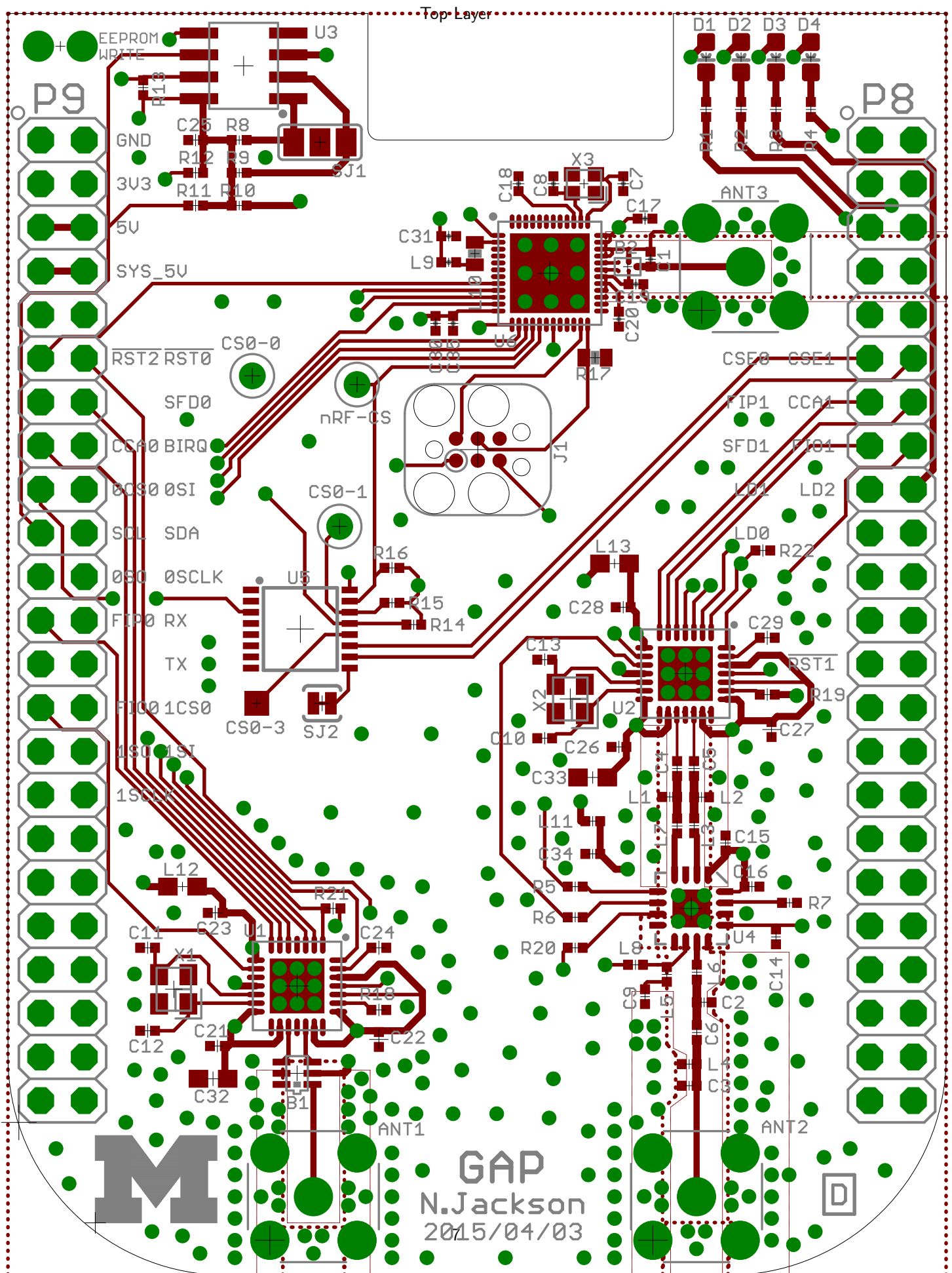


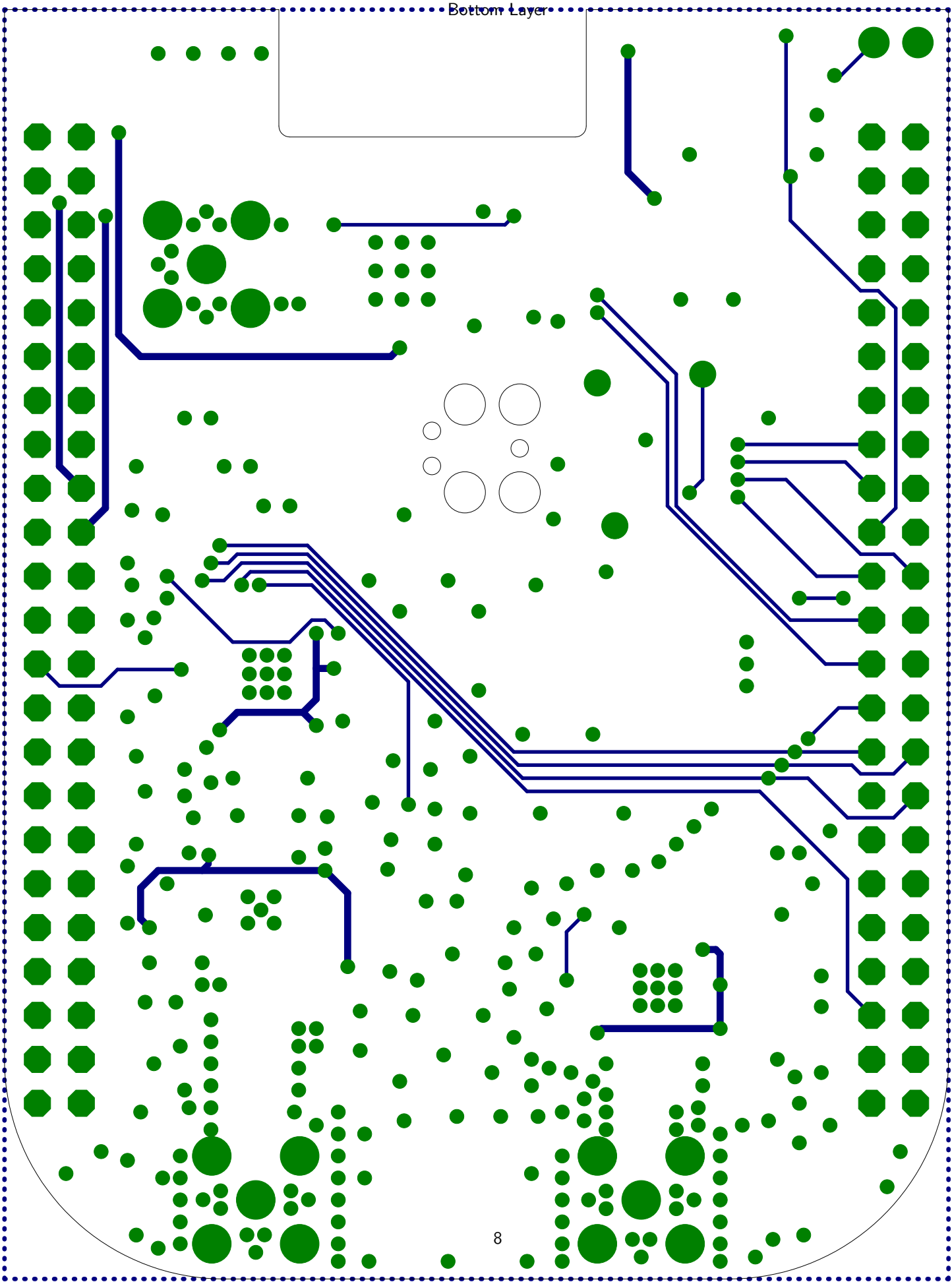
Chip Select DeMux



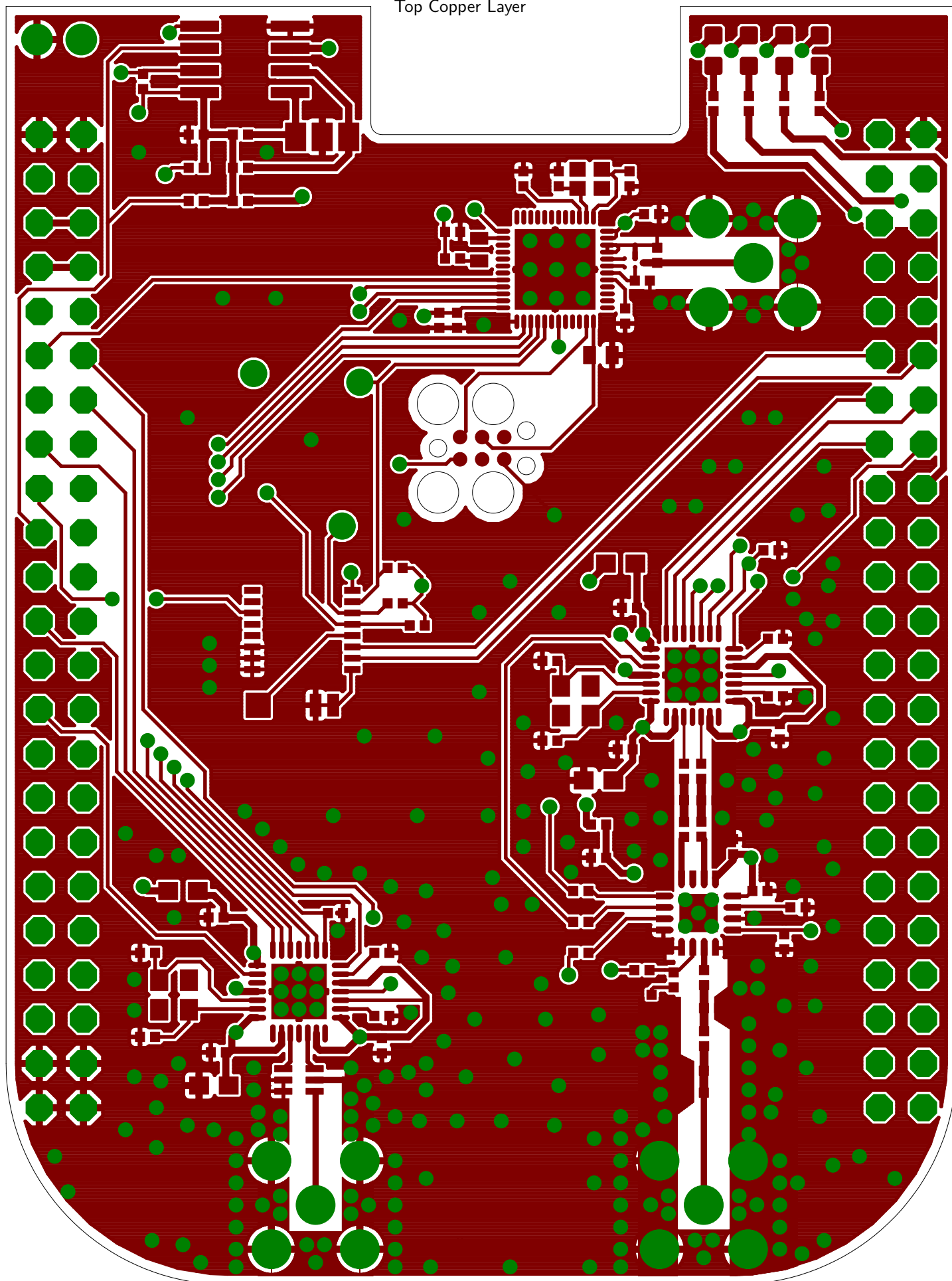
Top and Bottom Layers



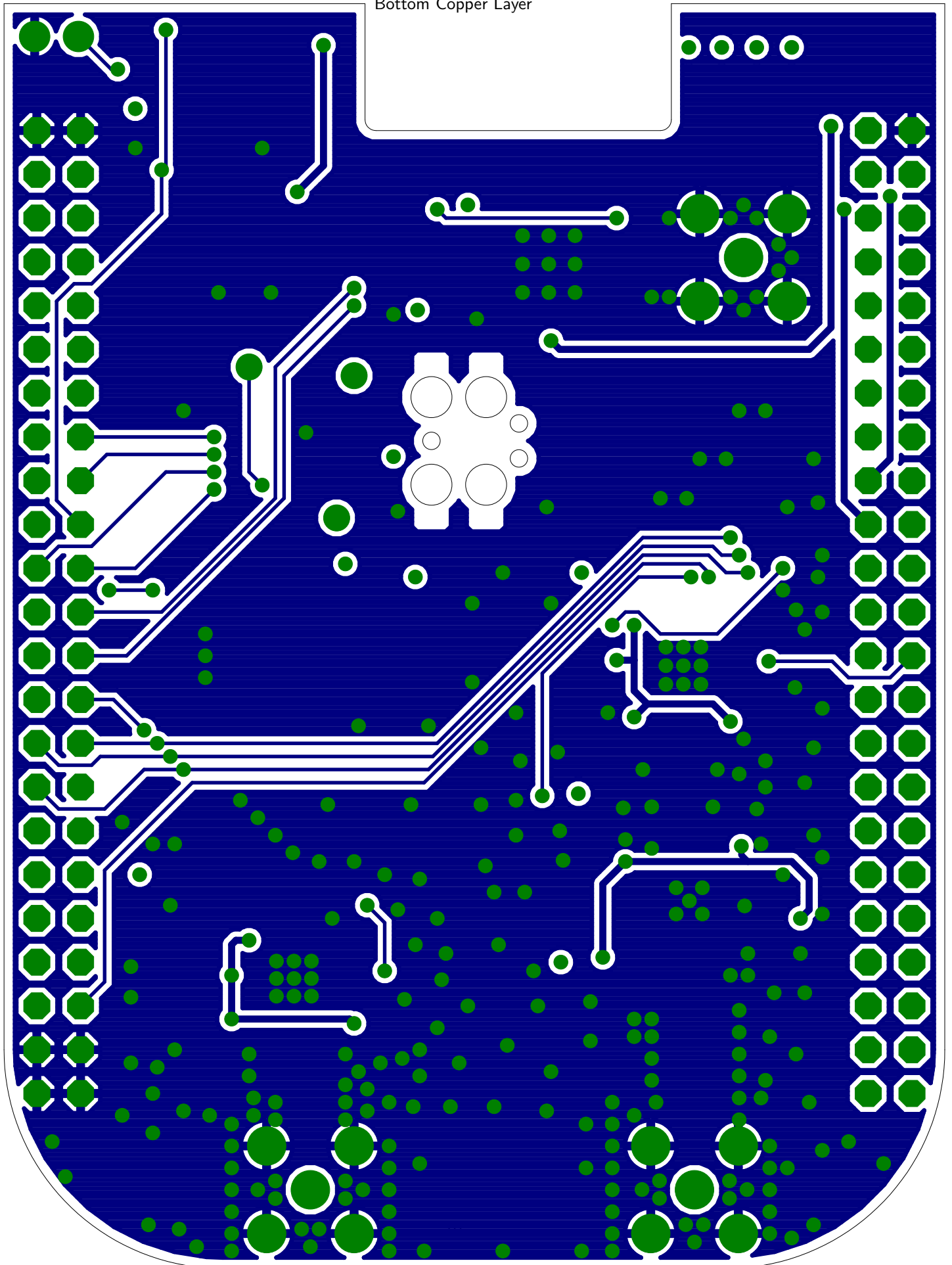




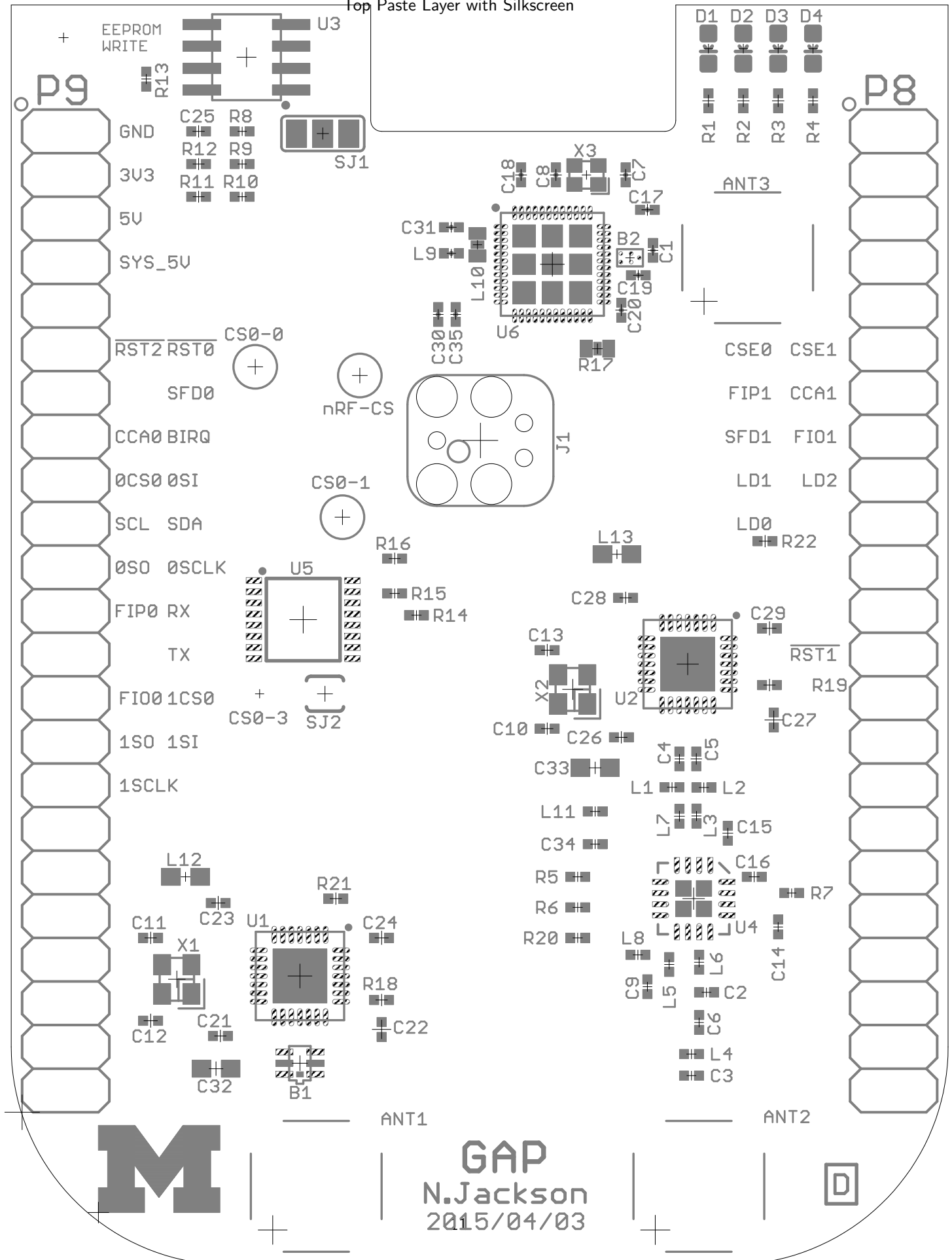
Top Copper Layer



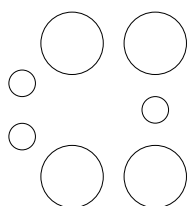
Bottom Copper Layer



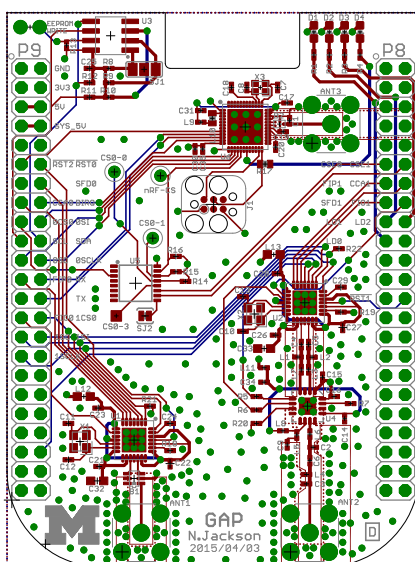
Top Paste Layer with Silkscreen



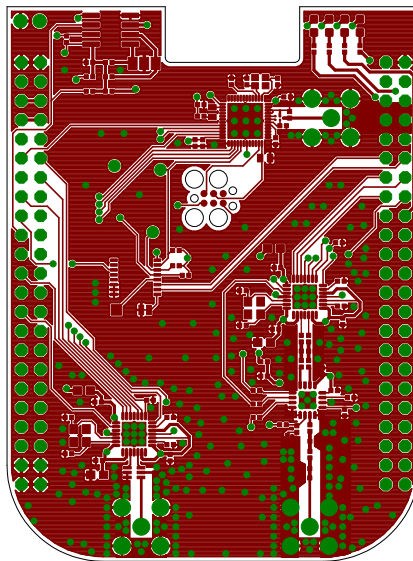
Bottom Paste Layer with Silkscreen

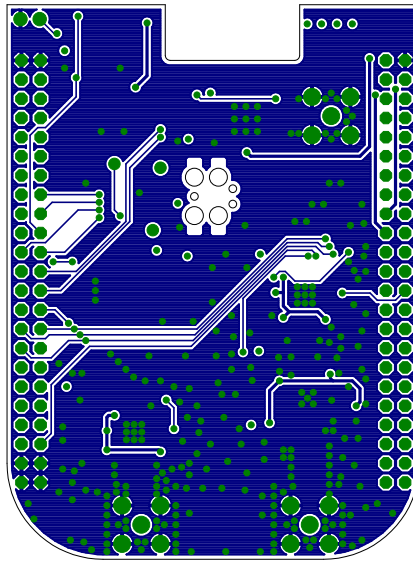


Top and Bottom Layers 1:1 Scale



Top Layer 1:1 Scale





Qty	Value	Device
3	MOLEX_WM5544-ND	MOLEX_WM5544-ND
1	2450BM15A0002	2450BM15A0002
1	BAL-NRF01D3	BAL-NRF01D3
1	0.8pF	CAPACITOR
1	1pF	C-EUC0402
1	2.7pF	C-EUC0402
1	3pF	C-EUC0402
1	3.9pF	C-EUC0402
1	6.8pF	C-EUC0402
2	12pF	CAPACITOR
1	15pF	C-EUC0402
4	27pF	C-EUC0402
3	1nF	C-EUC0402
2	1nF	CAPACITOR
1	2.2nF	CAPACITOR
1	47nF	CAPACITOR
9	100nF	C-EUC0402
1	0.1uF	CAPACITOR
1	1uF	CAPACITOR
2	1uF	C-EUC0603
1	2.2uF	C-EUC0402
1	4.7uF	CAPACITOR
1	GREEN	LED0603
1	RED	LED0603
1	BLUE	LED0603
1	YELLOW	LED0603
1	JUMPER-PTH-2-NO	JUMPER-PTH-2-NO
4	1nH	INDUCTOR0402
1	1.1nH	INDUCTOR0402
1	1.5nH	INDUCTOR0402
1	2nH	INDUCTOR0402
1	5.1nH	INDUCTOR0402
1	15nH	INDUCTOR0402
1	10uH	INDUCTOR0603
1	1k Ohm	INDUCTOR0402
2	1k Ohm	INDUCTOR0603
2	BBB_HEADERS	BBB_HEADERS
4	470 ohm	R-US_R0402
2	1k 1%	R-US_R0402
1	4.3k	R-US_R0402
3	4.75k	R-US_R0402
2	5.6k 5%	R-US_R0402
4	10k 1%	R-US_R0402
1	12k	RESISTOR
2	56k 1%	R-US_R0402
1	330k 1%	R-US_R0402
2	1M 1%	R-US_R0402
3	TEST_POINT_0.040IN	TEST_POINT_0.040IN
2	CC2520	CC2520
1	CAT24C256WI-GT3	CAT24C256WI-GT3
1	CC2591	CC2591
1	CD4051B-53B	CD4051B-53B

1 NRF51822QF
2 NX2520SA
1 16MHz

NRF51822QF
NX2520SA
TxC-8Y

Parts

ANT1, ANT2, ANT3

B1

B2

C1

C2

C3

C4

C5

C6

C7, C8

C9

C10, C11, C12, C13

C14, C15, C16

C17, C18

C19

C20

C21, C22, C23, C24, C25, C26, C27, C28, C29

C30

C31

C32, C33

C34

C35

D1

D2

D3

D4

J2

L1, L2, L3, L4

L5

L6

L7

L8

L9

L10

L11

L12, L13

P8, P9

R1, R2, R3, R4

R5, R6

R7

R8, R9, R10

R11, R12

R13, R14, R15, R16

R17

R18, R19

R20

R21, R22

TP0, TP1, TP2

U1, U2

U3

U4

U5

U6
X1, X2
X3

Description

Through-hole SMA Antenna

BALUN JTI MATCHED ZIGBEE

50 ohm nominal input / conjugate match balun to nRF51422-QFAA,

0402 Capacitor

Capacitor, 1p, 0402, NP0, +/-0.1pF 50V

Capacitor, 2p7, 0402, NP0, +/-0.25pF, 50V

Capacitor, 3p, 0402, NP0, +/-0.25pF, 50V

Capacitor, 3p9, 0402, NP0, +/-0.25pF, 50V

Capacitor, 6p8, 0402, NP0, +/-0.25pF 50V

0402 Capacitor

Capacitor, 15p, 0402, NP0, 5%, 50V

Capacitor, 27p, 0402, NP0, 5%, 50V

Capacitor, 1n, 0402, NP0, 5%, 50V

0402 Capacitor

0402 Capacitor

0402 Capacitor

Capacitor, 100n, 0402, X5R, 10%, 10V

0402 Capacitor

0402 Capacitor

Capacitor, 1u0, 0603, X5R, 10%, 6.3V

Capacitor, 2u2, 0402, X5R, 20%, 4V

0402 Capacitor

LEDs

LEDs

LEDs

LEDs

Inductor, 1n0, 0402, Monolithic type, +/-0.3 nH

Inductor, 1n1, 0402, Monolithic type, +/-0.3 nH

Inductor, 1n5, 0402, wire-wound type, +/-0.1 nH

Inductor, 2n0, 0402, +/-0.3 nH

Inductor, 5n1, 0402, +/-0.3 nH

EMI filter bead, 0402 1Kohms GHz Band Gen Use

EMI filter bead, 0603 1Kohms GHz Band Gen Use

2x23 Pin Header

RESISTOR, American symbol

RESISTOR, American symbol

RESISTOR, American symbol

RESISTOR, American symbol

RESISTOR, American symbol

RESISTOR, American symbol

Resistor

RESISTOR, American symbol

RESISTOR, American symbol

RESISTOR, American symbol

0.040in Test Point

2.4 GHZ IEEE 802.15.4/ZIGBEE® RF TRANSCEIVER

256kb Serial CMOS EEPROM

2.4GHz Range Extender

IC MUX/DEMUX 8x1 16TSSOP

Multiprotocol Bluetooth® 4.0 low energy/2.4 GHz RF SoC 32kB/256kB
CRYSTAL 32MHZ 10PF SMD
2mmx1.6mm SMD Crystal

DIGIKEY	SAMTEC	MAJOR LEAGUE
WM5544-ND		
712-1536-1-ND		
497-13637-1-ND		
490-6269-1-ND		
490-6206-1-ND		
490-5934-1-ND		
490-5872-1-ND		
490-1272-1-ND		
490-5949-1-ND		
490-6197-1-ND		
490-5888-1-ND		
490-5869-1-ND		
490-3244-1-ND		
490-1303-1-ND		
490-5419-1-ND		
445-1264-1-ND		
490-1318-1-ND		
445-4952-1-ND		
1276-1513-1-ND		
490-1550-1-ND		
490-4518-1-ND		
445-5947-1-ND		
160-1834-1-ND		
160-1835-1-ND		
160-1837-1-ND		
160-1831-1-ND		
3M9447-ND		
490-2610-1-ND		
490-6567-1-ND		
490-6782-1-ND		
490-6569-1-ND		
490-6573-1-ND		
587-1521-1-ND		
490-4025-1-ND		
490-3999-1-ND		
490-1015-1-ND		
	SSQ-123-03-T-D	SSHQ-123-D-08-G-LF
RHM470CDCT-ND		
RHM1.00KCDCT-ND		
1276-4078-1-ND		
1276-4083-1-ND		
RHM5.6KCECT-ND		
RHM10.0KCDCT-ND		
RHM12.0KCDCT-ND		
P56.0KLCT-ND		
RHM330KCFCT-ND		
RHM1.00MCDCT-ND		
5001K-ND		
296-22996-1-ND		
CAT24C256WI-GT3OSCT-ND		
296-23603-1-ND		
296-11993-1-ND		

1490-1042-1-ND
644-1065-1-ND
887-2003-1-ND