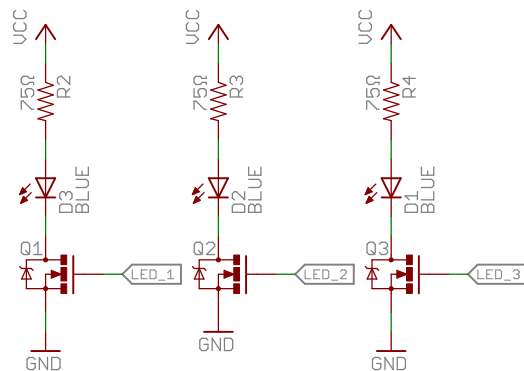
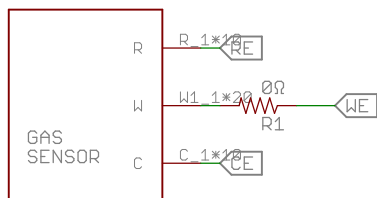
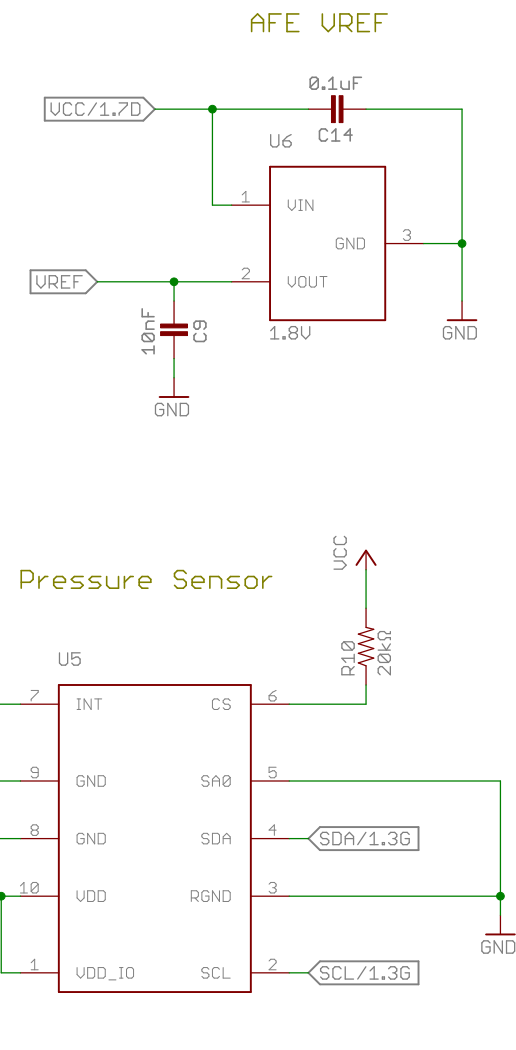
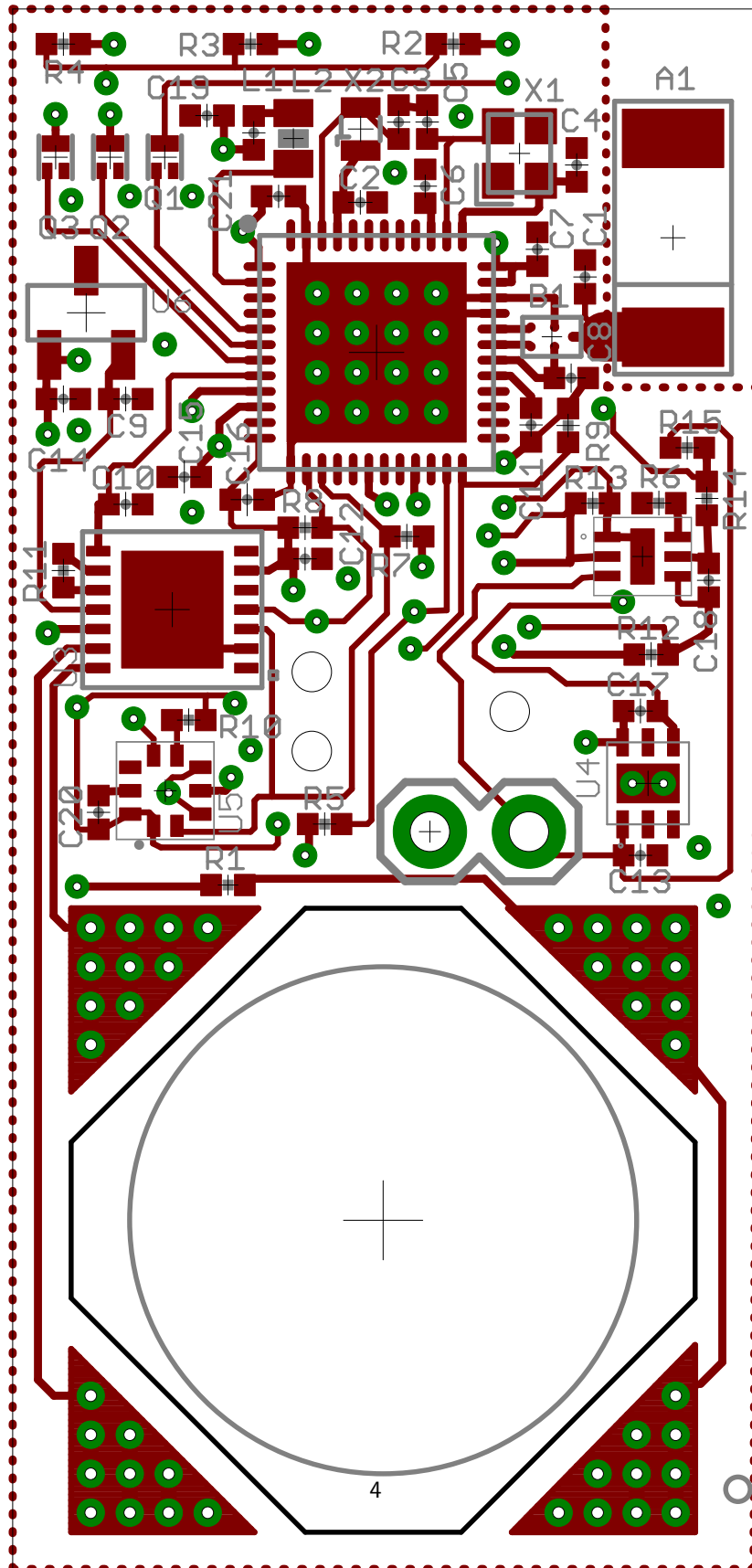


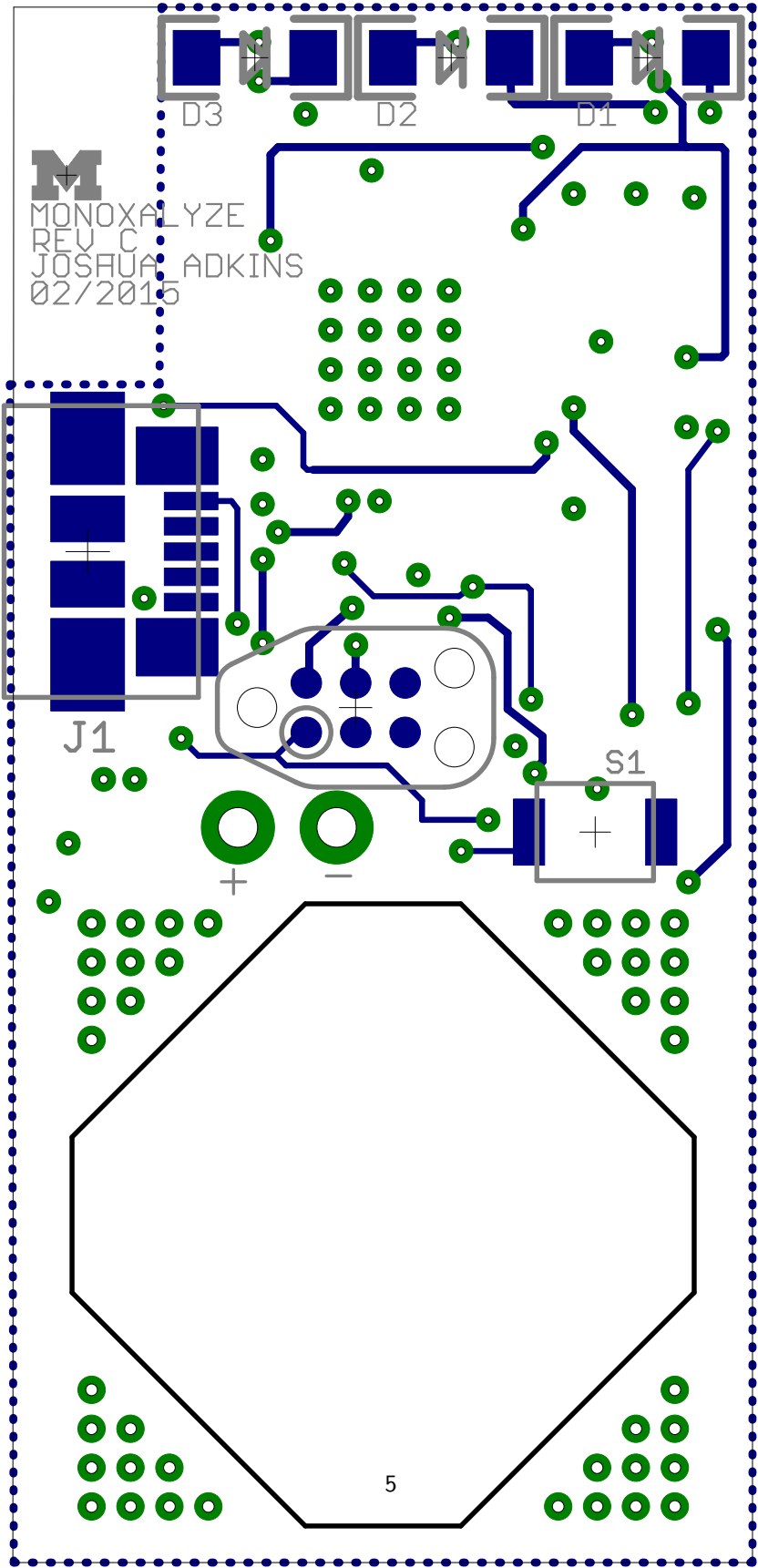
Visual Verification LEDS



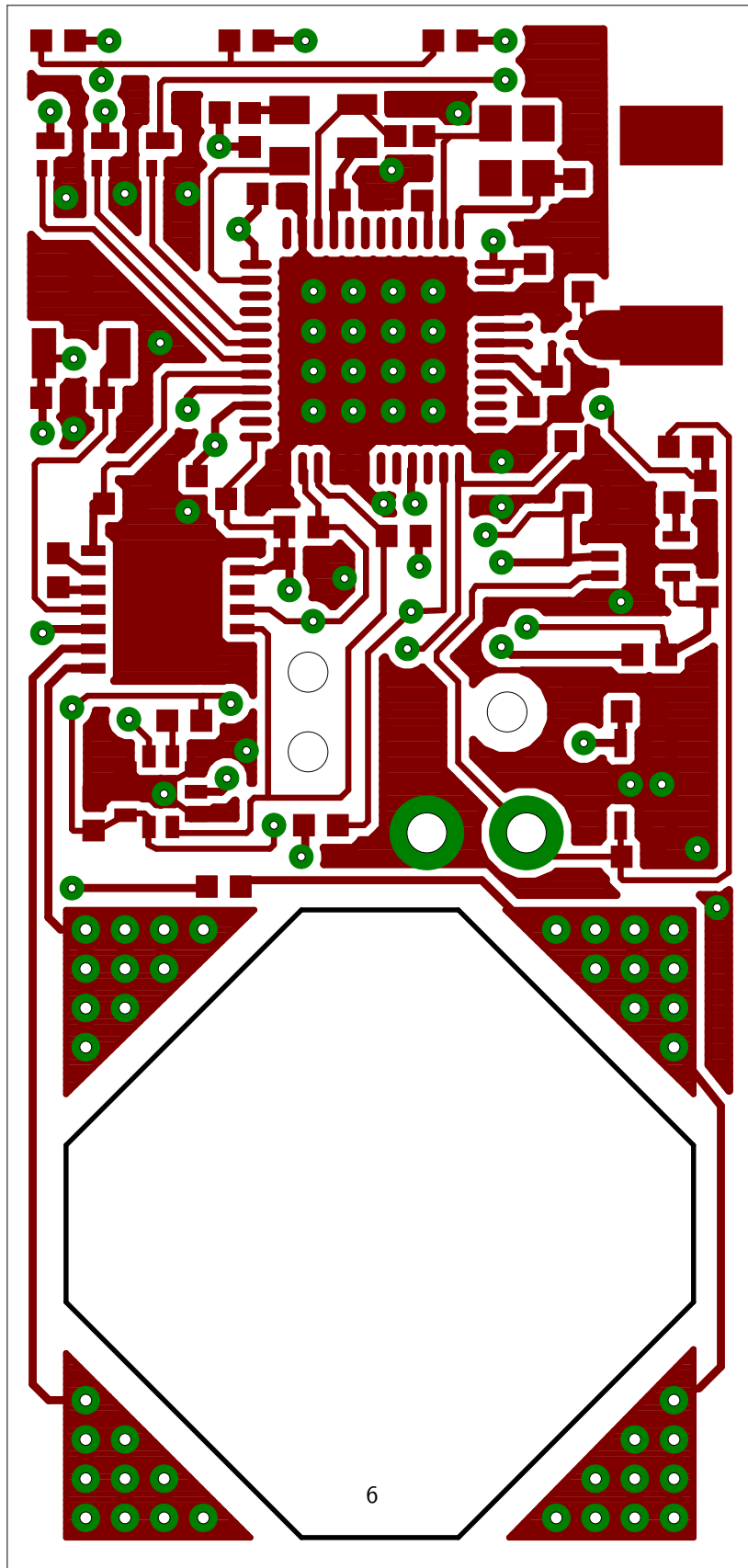
Sheet: 1/2



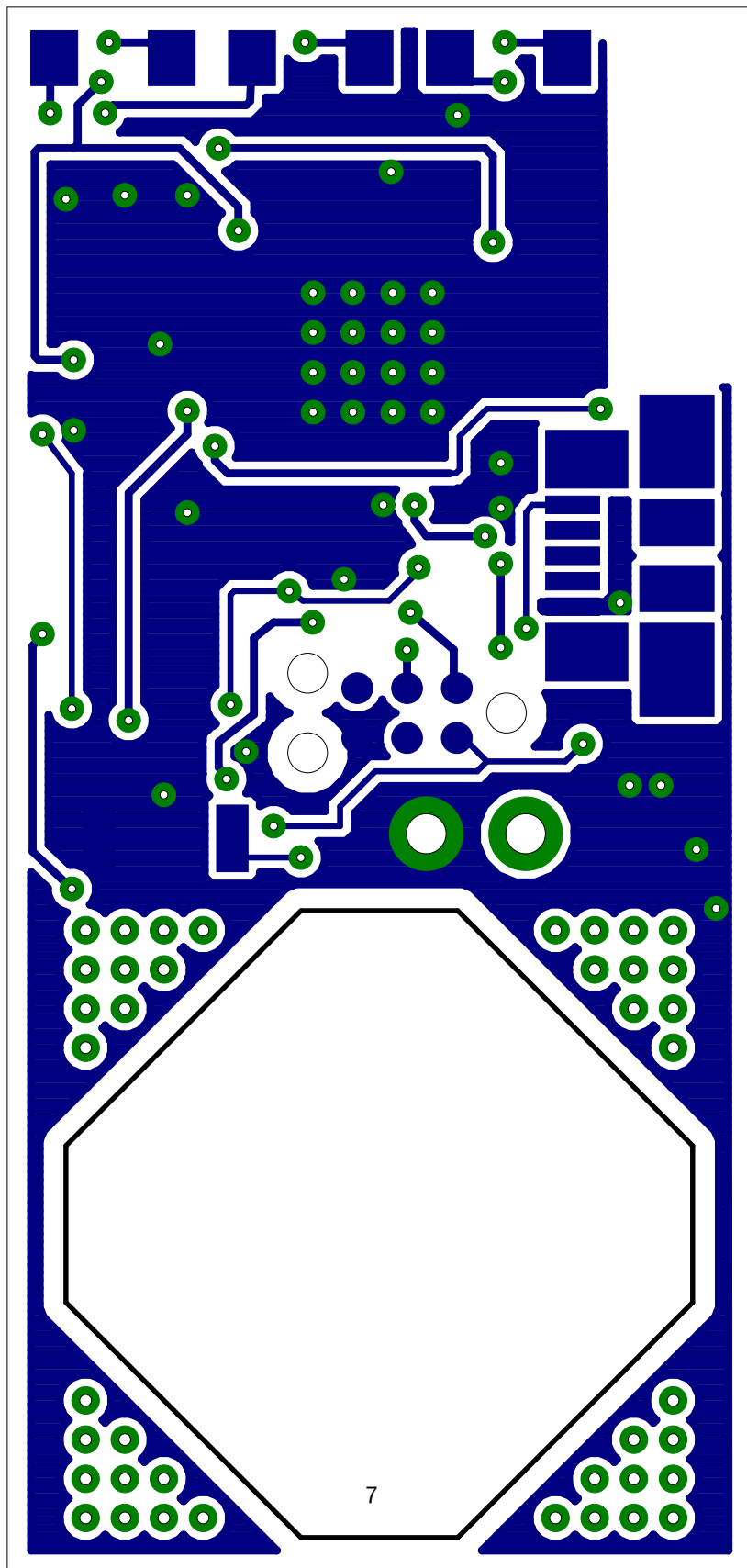




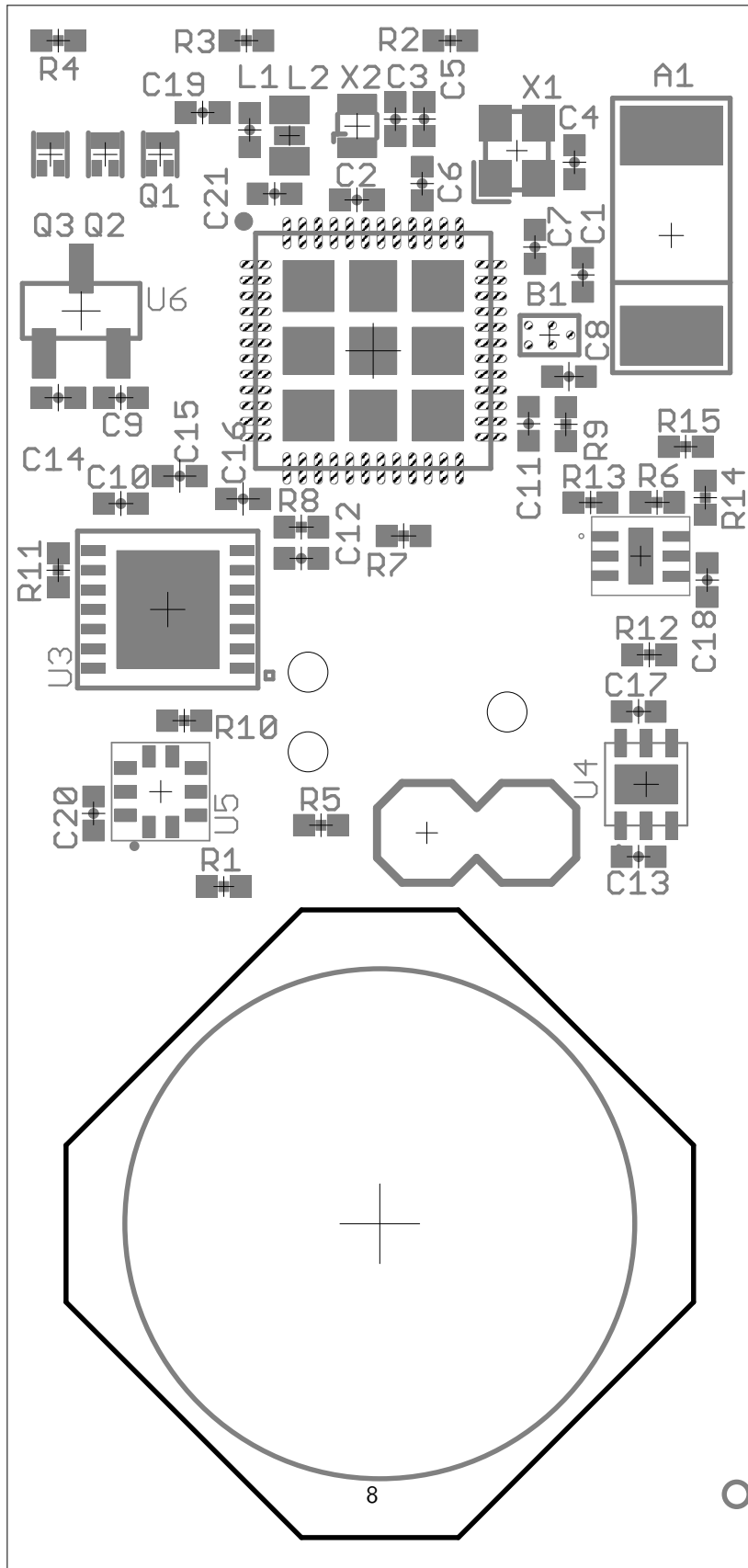
Top Copper Layer

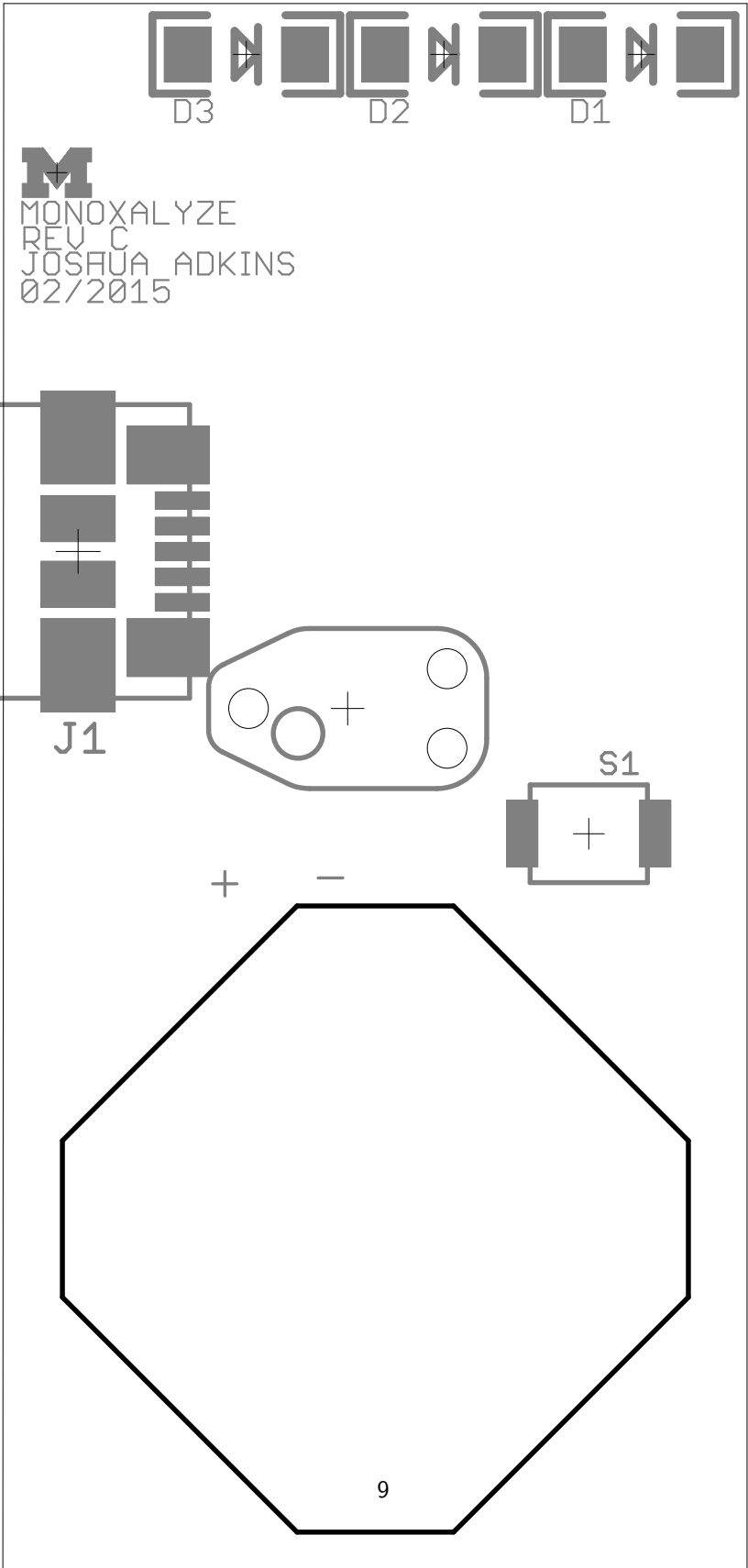


Bottom Copper Layer

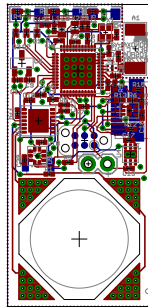


Top Paste Layer with Silkscreen

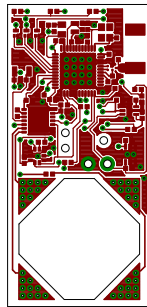




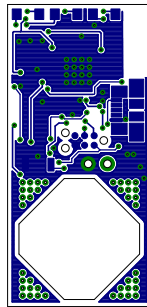
Top and Bottom Layers 1:1 Scale



Top Layer 1:1 Scale



Bottom Copper Layer 1:1 Scale



Sheet1

	Value	Device
A1	FRACTUS-2.4GHZ-FR05-S1-N-0-102	FRACTUS-2.4GHZ-FR05-S1-N-0-102
B1	BAL-NRF01D3	BAL-NRF01D3
C1	0.8pF	CAPACITOR
C2	12pF	CAPACITOR
C3	12pF	CAPACITOR
C4	12pF	CAPACITOR
C5	12pF	CAPACITOR
C6	1nF	CAPACITOR
C7	1nF	CAPACITOR
C8	2.2nF	CAPACITOR
C9	10nF	CAPACITOR
C10	10nF	CAPACITOR
C11	47nF	CAPACITOR
C12	0.1uF	CAPACITOR
C13	0.1uF	CAPACITOR
C14	0.1uF	CAPACITOR
C15	0.1uF	CAPACITOR
C16	0.1uF	CAPACITOR
C17	0.47uF	CAPACITOR
C18	1uF	CAPACITOR
C19	1uF	CAPACITOR
C20	4.7uF	CAPACITOR
C21	4.7uF	CAPACITOR
D1	BLUE	LED1206
D2	BLUE	LED1206
D3	BLUE	LED1206
J1	MOLEX_MICRO_USB_B_047346	MOLEX_MICRO_USB_B_047346
J2	TC2030-JLINK-NL	TC2030-JLINK-NL
J3		M02PTH
L1	15nH	INDUCTOR0402
L2	10uH	INDUCTOR0603
LOGO1	UMICH_SOLID_TINY	UMICH_SOLID_TINY
Q1	MOSFET-NCHANNELXFDN-3	MOSFET-NCHANNELXFDN-3
Q2	MOSFET-NCHANNELXFDN-3	MOSFET-NCHANNELXFDN-3
Q3	MOSFET-NCHANNELXFDN-3	MOSFET-NCHANNELXFDN-3
R1	0Ω	RESISTOR0402_RES
R2	75Ω	RESISTOR0402_RES
R3	75Ω	RESISTOR0402_RES
R4	75Ω	RESISTOR0402_RES
R5	150Ω	RESISTOR0402_RES
R6	5.23kΩ	RESISTOR0402_RES
R7	10kΩ	RESISTOR0402_RES
R8	10kΩ	RESISTOR0402_RES
R9	12kΩ	RESISTOR0402_RES
R10	20kΩ	RESISTOR0402_RES
R11	715kΩ	RESISTOR0402_RES
R12	1MΩ	RESISTOR0402_RES
R13	2MΩ	RESISTOR0402_RES

Sheet1

R14	2.2MΩ	RESISTOR0402_RES
R15	10MΩ	RESISTOR0402_RES
S1	B3U-1000P	B3U-1000P
U1	NRF51822QF	NRF51822QF
U2	LTC4065	LTC4065
U3		LMP91000
U4	TPS715AXX	TPS715AXX
U5	LPS25H	LPS25H
U6	1.8V	ISL60002
U7	SPECSSENSOR	SPECSSENSOR
X1	16MHz	TXC-8Y
X2	ABS05-32.768KHZ-9-T	ABS05-32.768KHZ-9-T

Package
FRACTUS-ANTENNA-FR05-S1-N-0-102
BAL-NRF01D3
0402_CAP
0402_CAP
0402_CAP
0402_CAP
0402_CAP
0402_CAP
0402_CAP
0402_CAP
0402_CAP
0402_CAP
0402_CAP
0402_CAP
0402_CAP
0402_CAP
0402_CAP
0402_CAP
0402_CAP
0402_CAP
0402_CAP
0402_CAP
LED-1206
LED-1206
LED-1206
USB_MICRO_B-MOLEX-047346
TC2030-IDC-NL
1X02
0402_CAP
0603_CAP
UMICH_SOLID_50MIL
XFDFN-3
XFDFN-3
XFDFN-3
0402_RES
0402_RES
0402_RES
0402_RES
0402_RES
0402_RES
0402_RES
0402_RES
0402_RES
0402_RES
0402_RES
0402_RES
0402_RES

0402_RES
0402_RES
B3U-1000P
QFN-48-6MM
DFN-6/2MM
WDFN-14
WDFN-6
LPS25H
ISL60002
SPEC2
TXC-8Y
ABS05

Sheet1

Description

Fractus Compact Reach Xtend™ chip antenna is engineered specifically for Bluetooth,
50 ohm nominal input / conjugate match balun to nRF51422-QFAA,

0402 Capacitor

0402 Capacitor

0402 Capacitor

0402 Capacitor

0402 Capacitor

0402 Capacitor

0402 Capacitor

0402 Capacitor

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0402 Capacitor

0402 Capacitor

0402 Capacitor

0402 Capacitor

0402 Capacitor

0402 Capacitor

LEDs Right Angle

LEDs Right Angle

LEDs Right Angle

Very tiny smd micro USB receptacle.

Header 2

Generic NMOS footprint

Generic NMOS footprint

Generic NMOS footprint

Resistor

Resistor

Resistor

Resistor

Resistor

Resistor

Resistor

Resistor

Resistor

Resistor

Resistor

Resistor

Resistor

Sheet1

Resistor

Resistor

Switch

Multiprotocol Bluetooth® 4.0 low energy/2.4 GHz RF SoC

LION/LIPO Battery Charging IC Low current

IC TI AFE for Gas Sensing

80ma LDO Regulator. Very low quiescent current. Always active.

ST-Micro Piezoresistive pressure sensor

Low Power Voltage Reference SOT23-3

2mmx1.6mm SMD Crystal

32.768kHz Crystal

Sheet1

DIGIKEY	MOUSER	RICHARDSON_RFPD
497-13637-1-ND	511-BAL-NRF01D3	FR05-S1-N-0102B
490-7277-1-ND		
490-5924-1-ND		
491-5924-1-ND		
492-5924-1-ND		
493-5924-1-ND		
490-1303-1-ND		
491-1303-1-ND		
490-1459-1-ND		
490-1312-1-ND		
491-1312-1-ND		
490-3254-1-ND		
490-1318-1-ND		
491-1318-1-ND		
492-1318-1-ND		
493-1318-1-ND		
494-1318-1-ND		
490-3266-1-ND		
490-1320-1-ND		
491-1320-1-ND		
490-5915-1-ND		
491-5915-1-ND		
1516-1072-1-ND		
1517-1072-1-ND		
1518-1072-1-ND		
WM17141CT-ND		
587-1521-1-ND		
490-4025-1-ND		
DMN2400UFB4-7DICT-ND		
DMN2400UFB4-7DICT-ND		
DMN2400UFB4-7DICT-ND		
P0.0JCT-ND		
P75.0LCT-ND		
P75.0LCT-ND		
P75.0LCT-ND		
P150LCT-ND		
P5.23KLCT-ND		
P10.0KLCT-ND		
P10.0KLCT-ND		
P12.0KLCT-ND		
P20.0KLCT-ND		
P715KLCT-ND		
P1.00MLCT-ND		
541-2.00MLCT-ND		

Sheet1

541-2.20MLCT-ND
541-10.0MLCT-ND
SW1020CT-ND
1490-1032-1-ND 949-NRF51822-QFAB-R7
LTC4065LEDC#TRMPBFCT-ND
LMP91000SDE/NOPBCT-ND
296-22584-1-ND
497-14380-1-ND
ISL60002BIH318Z-TKCT-ND

887-2003-1-ND
535-11897-1-ND