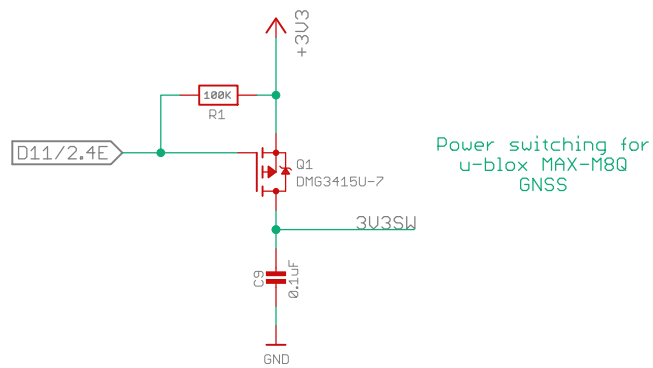
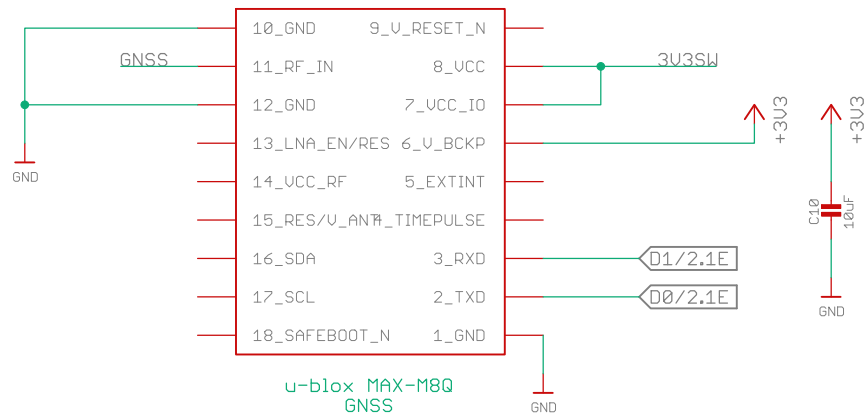
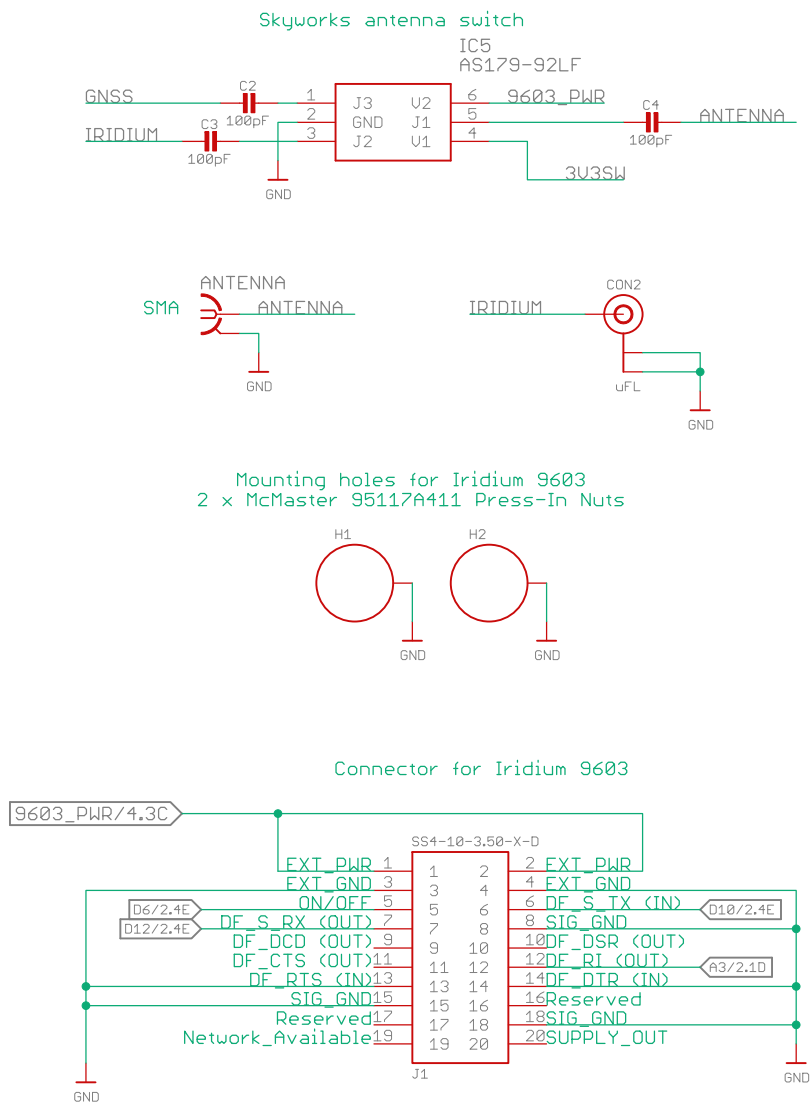
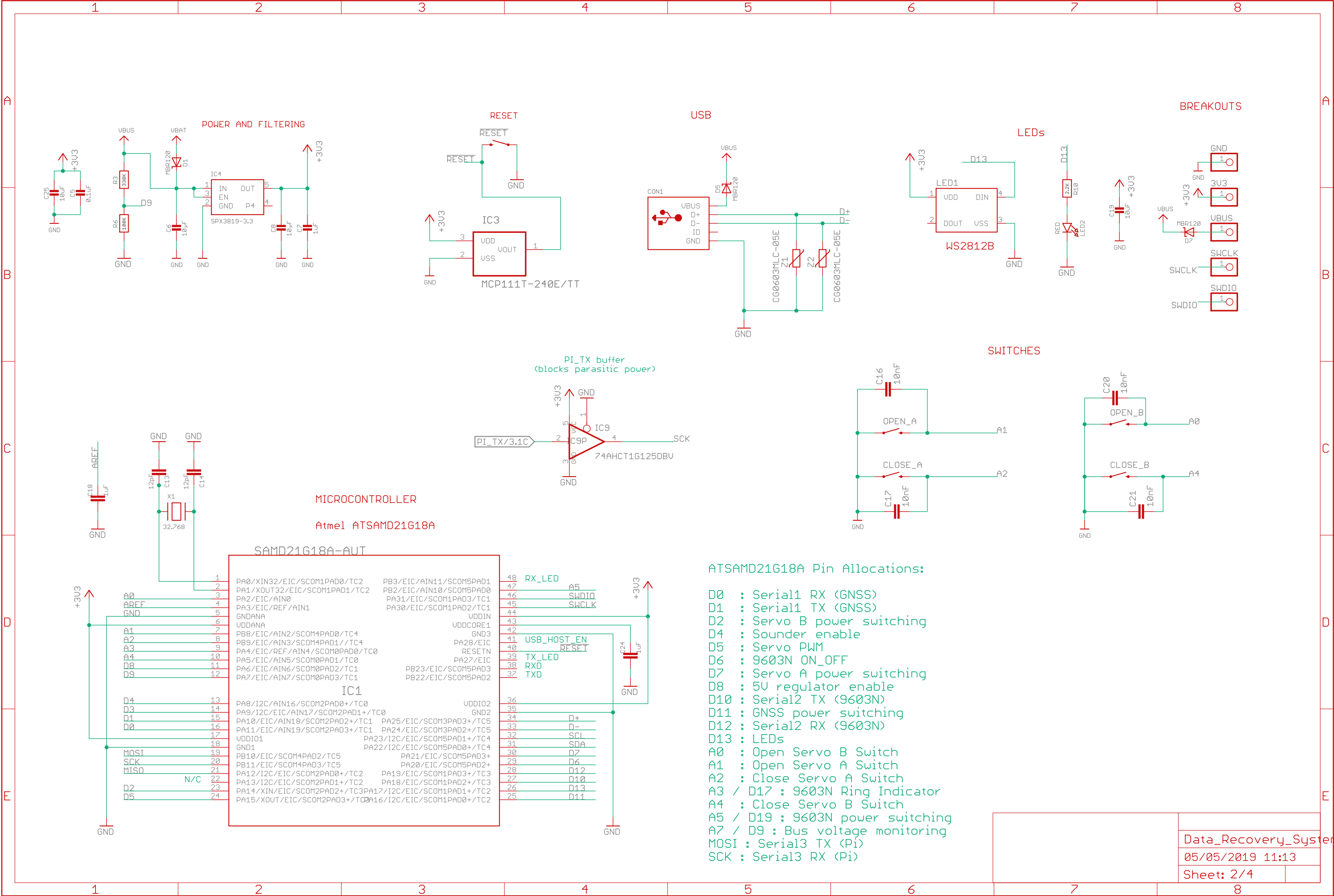


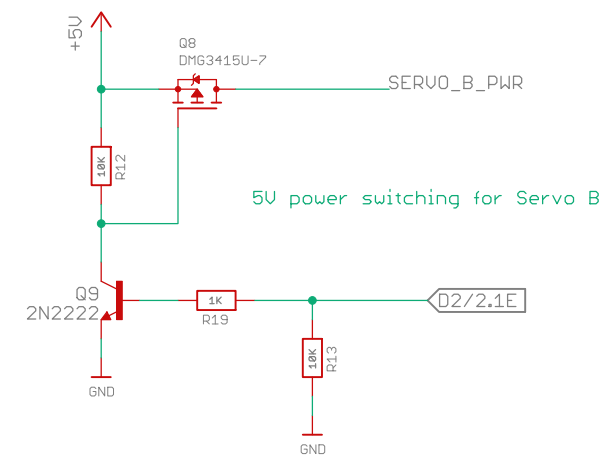
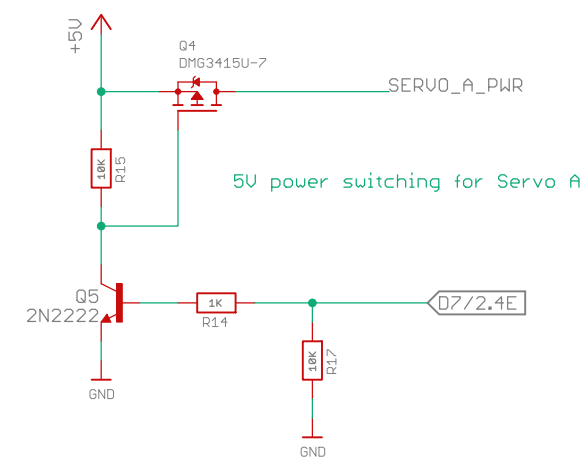
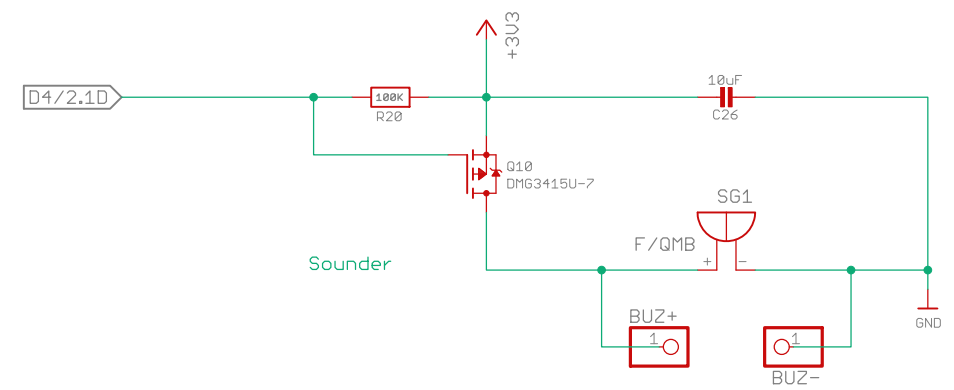
SuperBIT Data Recovery System

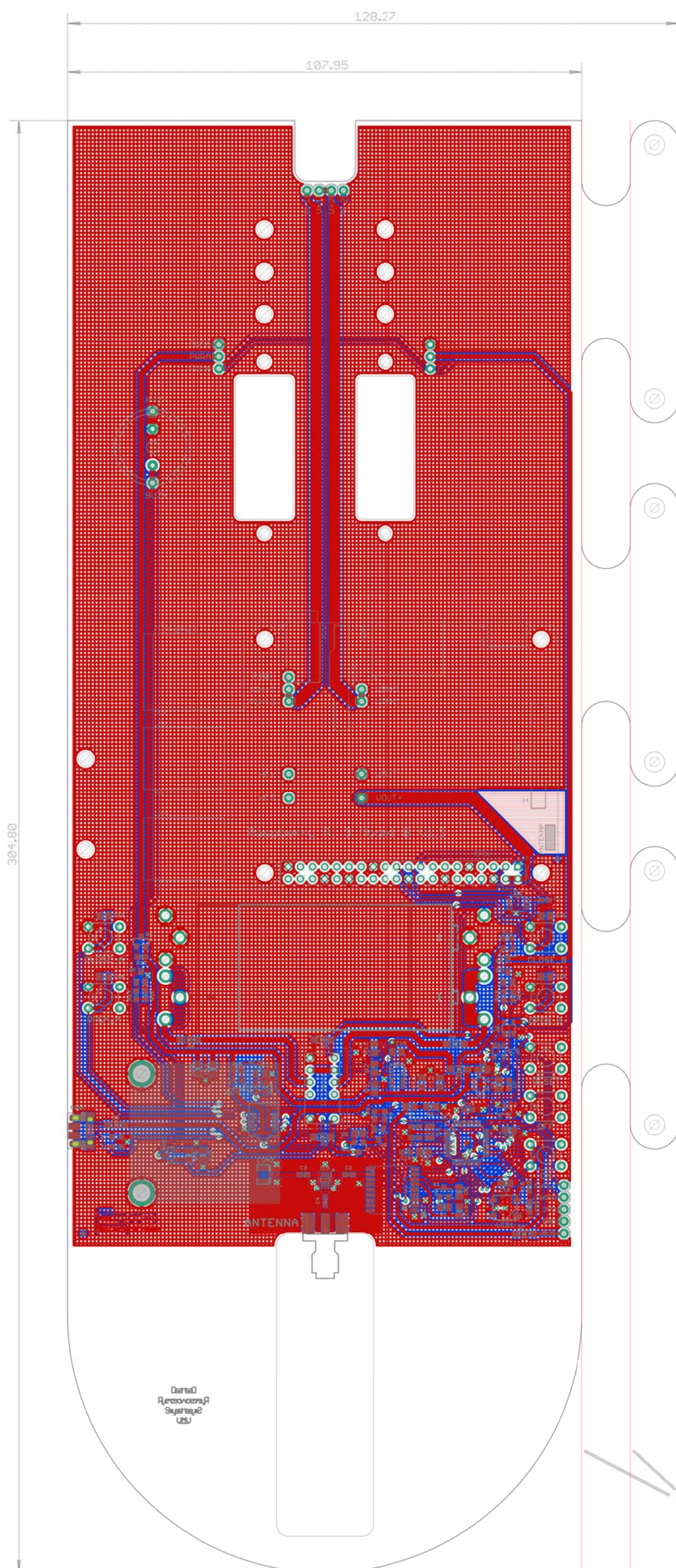


Fiducials

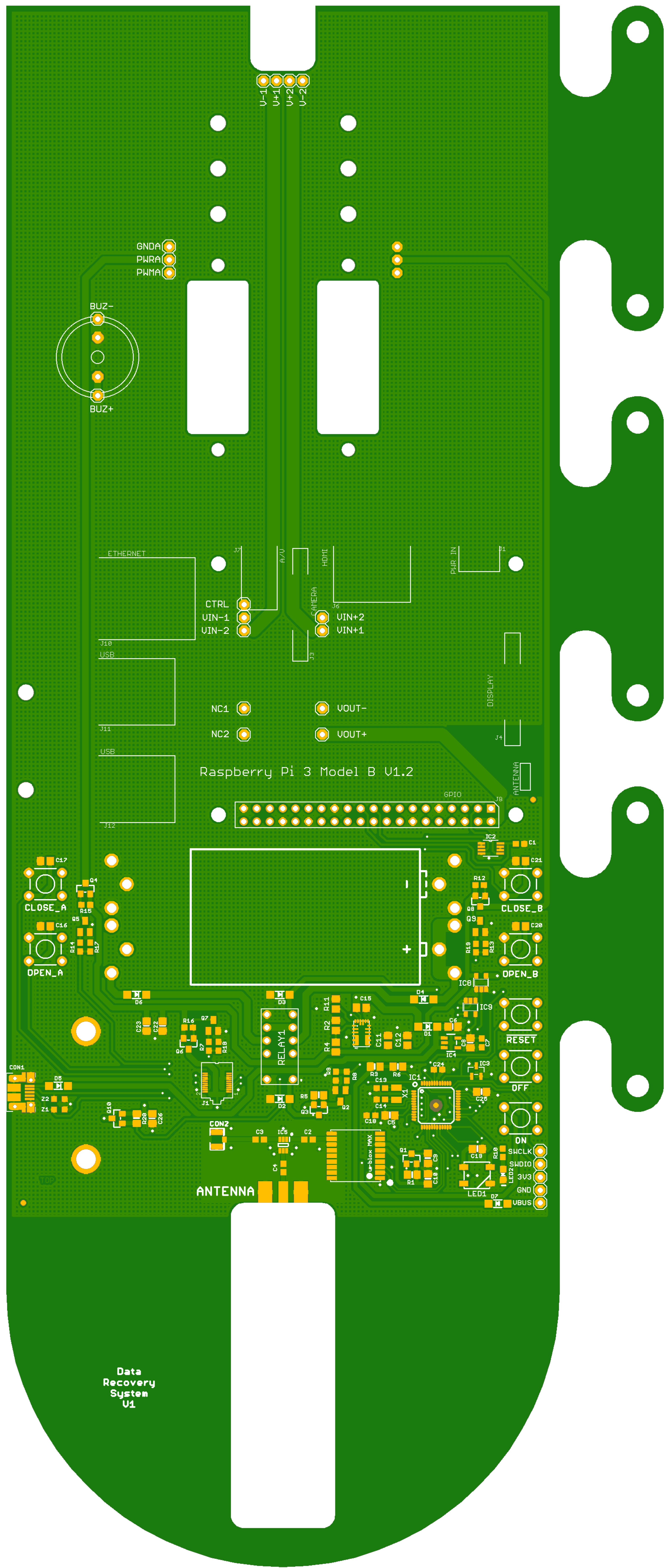


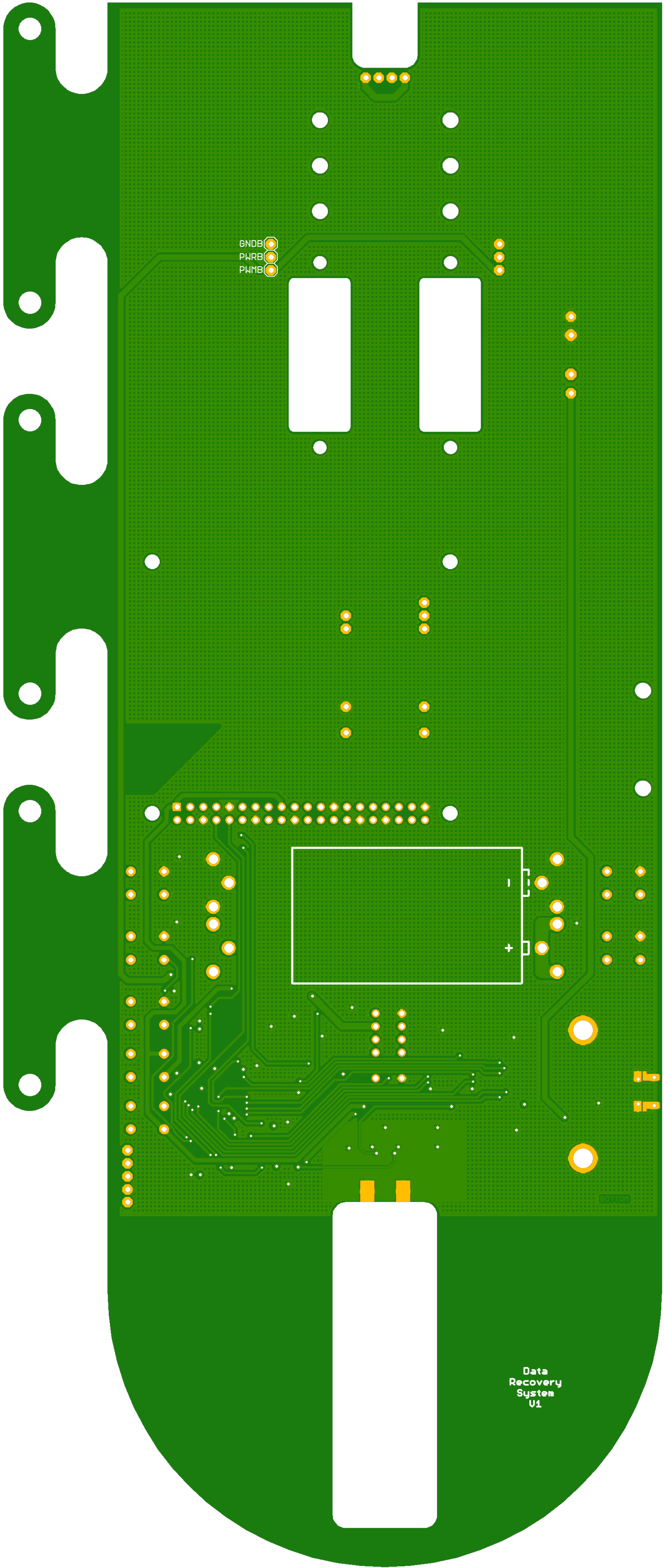






VSCORE data is in layer 148

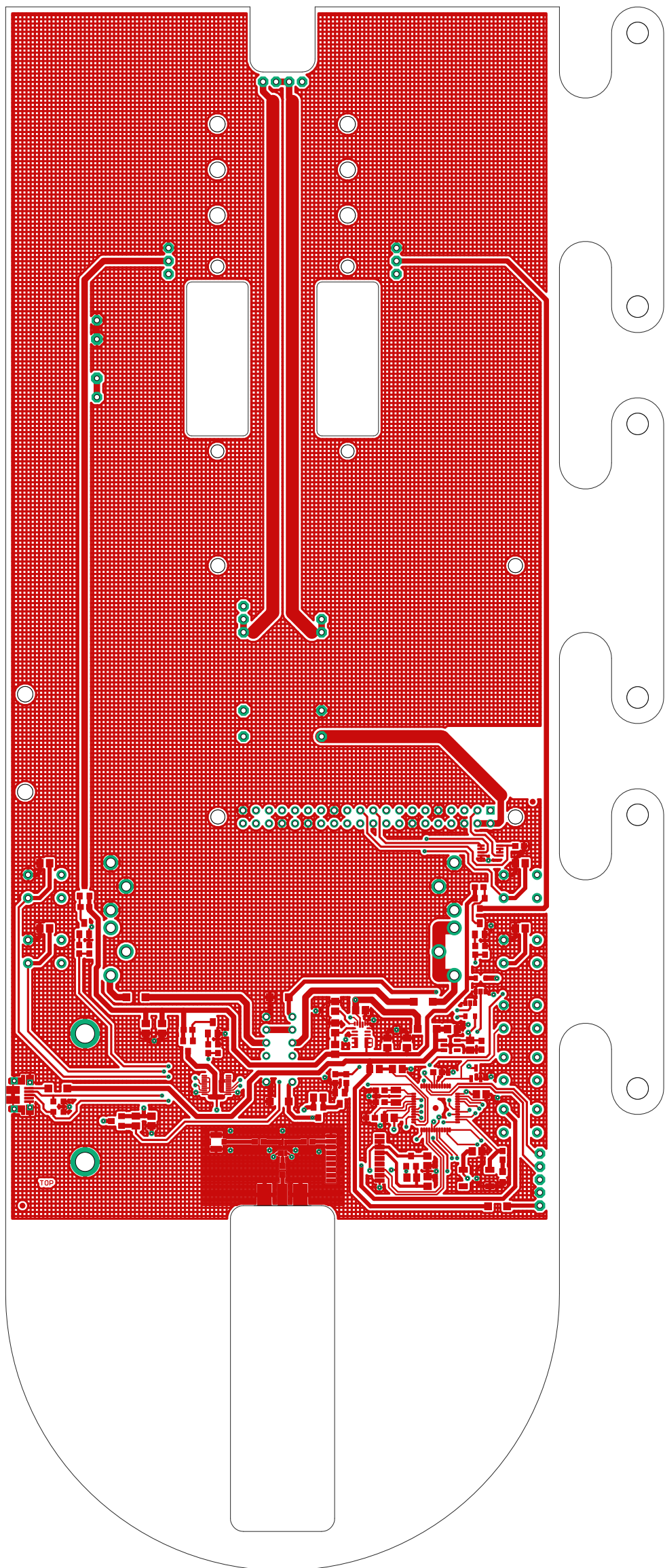


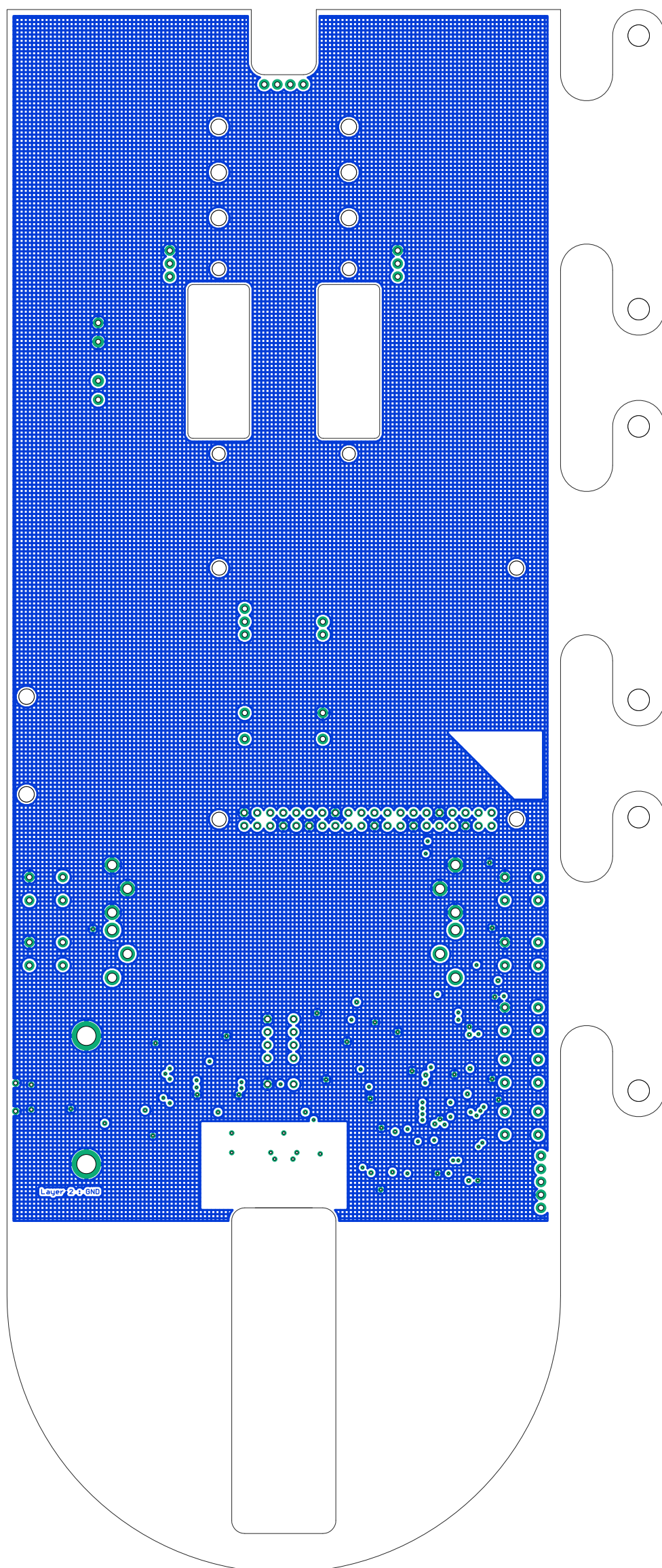


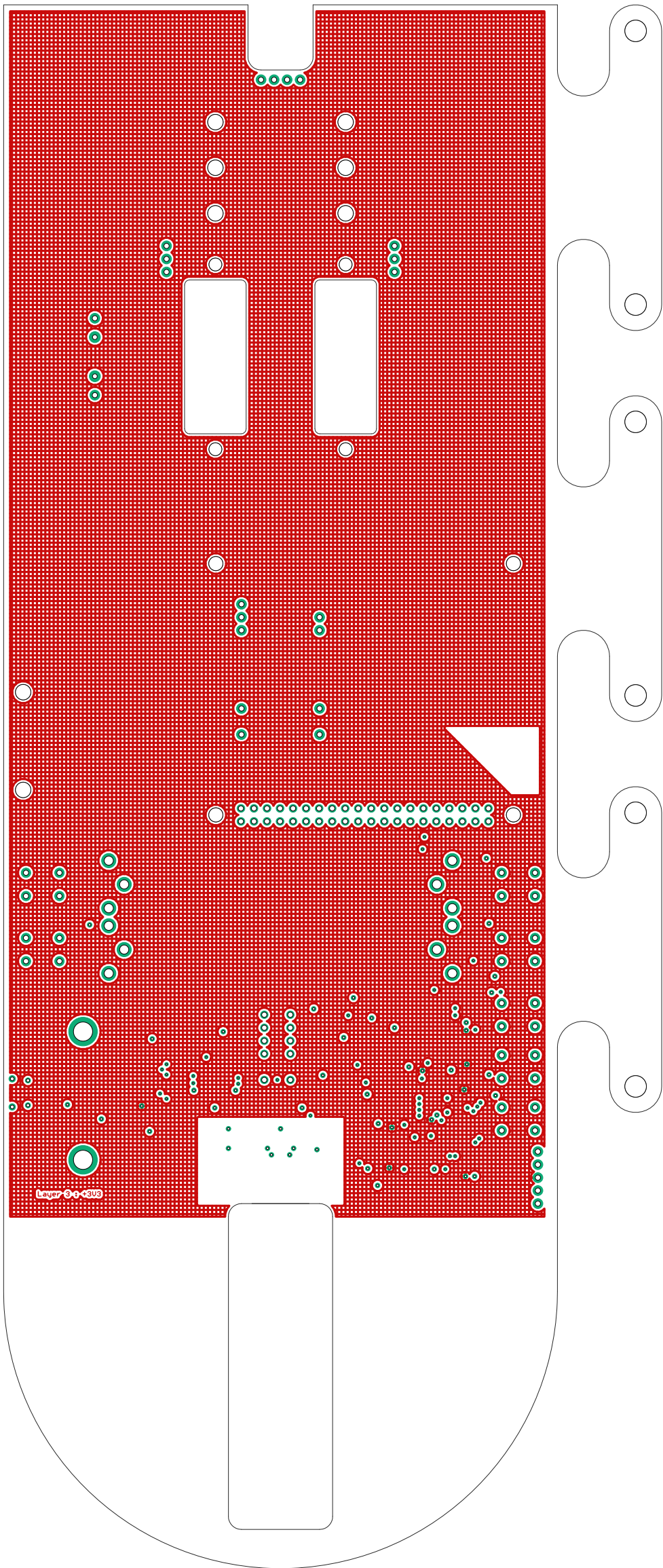
GNDB
PWRB
PWMB

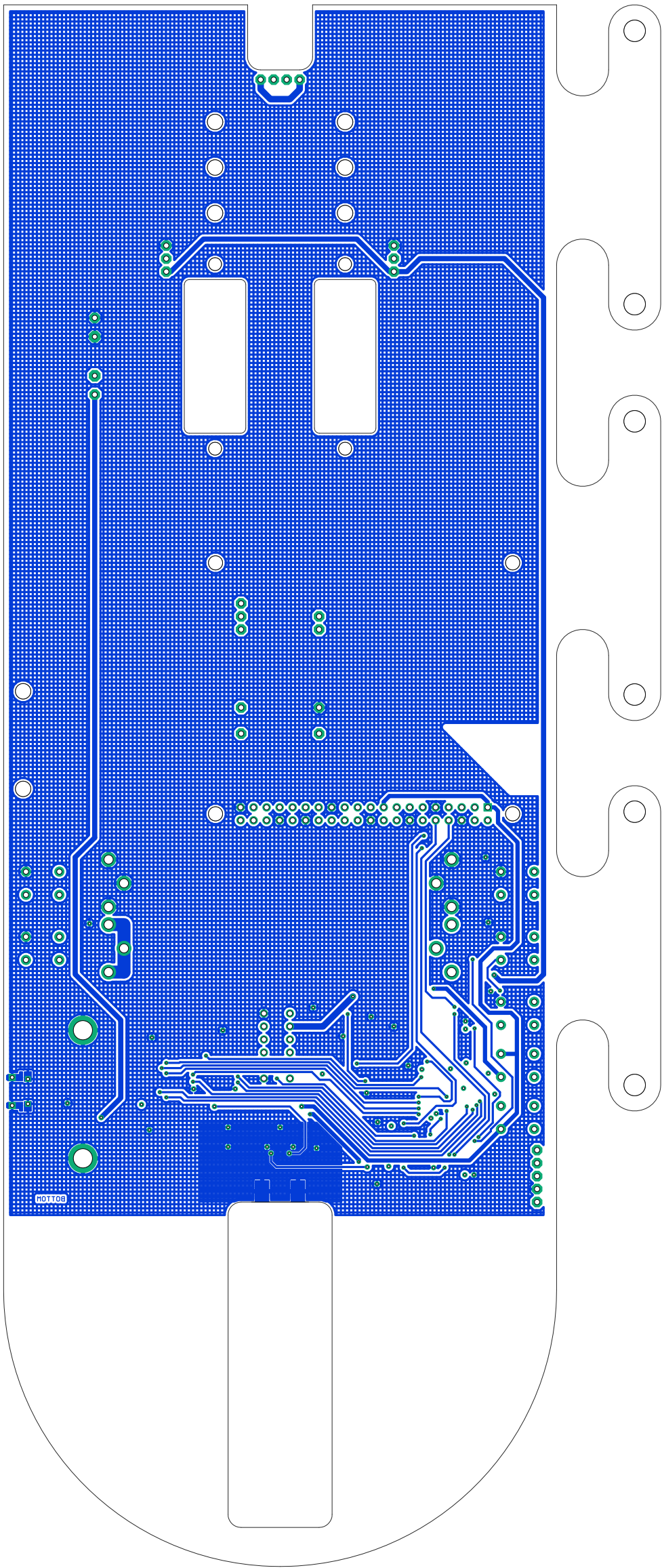
Data
Recovery
System
U1

BOTTOM









Part	X	Y	Angle	Package	Value	Manufacturer	Manufacturer Part No	Farnell Part No	Mouser Part No	McMaster Part No	Description	Alternative Part
Dimensions	107.95	304.80									Excludes snap-off servo linkage pieces	
Fiducials - for solder paste mask alignment:												
FD1	3.28	71.12	0								Fiducial 1mm	
FD2	102.75	149.86	0								Fiducial 1mm	
Surface Mount Components:												
C1	100.2	141.22	0	0603	1uF	Walsin	0603X105K100CT	2496916			MultiLayer Ceramic Capacitor; 1uF; 10V; 0603; XSR	1uF 50V ±10% 0603 Samsung
C2	58.93	83.57	0	0603	120pF	Walsin	0603B121K500CT	2524820			MultiLayer Ceramic Capacitor; 120pF; 50V; 0603	
C3	49.4	83.57	180	0603	120pF	Walsin	0603B121K500CT	2524820			MultiLayer Ceramic Capacitor; 120pF; 50V; 0603	
C4	53.98	77.98	90	0603	120pF	Walsin	0603B121K500CT	2524820			MultiLayer Ceramic Capacitor; 120pF; 50V; 0603	
C5	74.8	88.27	180	0805	0.1uF	Walsin	0805B104K500CT	2496944			MultiLayer Ceramic Capacitor; 0.1uF; 50V; 0805; XTR	100nF 50V ±10% 0805 Samsung
C6	87.1	105.54	0	0805	10uF	Walsin	0805F106Z100CT	2496998			MultiLayer Ceramic Capacitor; 10uF; 10V; 0805	10uF 16V ±10% 0805 Samsung
C7	92.75	102.39	270	0603	1uF	Walsin	0603X105K100CT	2496916			MultiLayer Ceramic Capacitor; 1uF; 10V; 0603; XSR	1uF 50V ±10% 0603 Samsung
C8	90.53	102.39	270	0805	10uF	Walsin	0805F106Z100CT	2496998			MultiLayer Ceramic Capacitor; 10uF; 10V; 0805	10uF 16V ±10% 0805 Samsung
C9	82.2	79.86	270	0805	0.1uF	Walsin	0805B104K500CT	2496944			MultiLayer Ceramic Capacitor; 0.1uF; 50V; 0805; XTR	100nF 50V ±10% 0805 Samsung
C10	82.26	75.84	90	0805	10uF	Walsin	0805F106Z100CT	2496998			MultiLayer Ceramic Capacitor; 10uF; 10V; 0805	10uF 16V ±10% 0805 Samsung
C11	74.4	102.87	90	0805	10nF	Walsin	0805B103K500CT	2496939			MultiLayer Ceramic Capacitor; 10nF; 50V; 0805; XTR	10nF 50V ±5% 0805 Samsung
C12	78.21	102.87	90	0805	10uF	Walsin	0805F106Z100CT	2496998			MultiLayer Ceramic Capacitor; 10uF; 10V; 0805	10uF 16V ±10% 0805 Samsung
C13	73.03	93.6	180	0603	12pF	Walsin	0603N120S500CT	2496884			MultiLayer Ceramic Capacitor; 12pF; 50V; 0603	12pF 50V ±5% 0603 Samsung
C14	73.03	91.31	180	0603	12pF	Walsin	0603N120S500CT	2496884			MultiLayer Ceramic Capacitor; 12pF; 50V; 0603	12pF 50V ±5% 0603 Samsung
C15	69.19	109.22	0	0805	10uF	Walsin	0805F106Z100CT	2496998			MultiLayer Ceramic Capacitor; 10uF; 10V; 0805	10uF 16V ±10% 0805 Samsung
C16	7.62	125.2	0	0805	10nF	Walsin	0805B103K500CT	2496939			MultiLayer Ceramic Capacitor; 10nF; 50V; 0805; XTR	10nF 50V ±5% 0805 Samsung
C17	7.62	137.9	0	0805	10nF	Walsin	0805B103K500CT	2496939			MultiLayer Ceramic Capacitor; 10nF; 50V; 0805; XTR	10nF 50V ±5% 0805 Samsung
C18	71.12	88.27	180	0603	1uF	Walsin	0603X105K100CT	2496916			MultiLayer Ceramic Capacitor; 1uF; 10V; 0603; XSR	1uF 50V ±10% 0603 Samsung
C19	91.89	81.69	0	0805	10uF	Walsin	0805F106Z100CT	2496998			MultiLayer Ceramic Capacitor; 10uF; 10V; 0805	10uF 16V ±10% 0805 Samsung
C20	100.33	125.2	0	0805	10nF	Walsin	0805B103K500CT	2496939			MultiLayer Ceramic Capacitor; 10nF; 50V; 0805; XTR	10nF 50V ±5% 0805 Samsung
C21	100.33	137.9	0	0805	10nF	Walsin	0805B103K500CT	2496939			MultiLayer Ceramic Capacitor; 10nF; 50V; 0805; XTR	10nF 50V ±5% 0805 Samsung
C22	30.48	105.69	270	0805	10uF	Walsin	0805F106Z100CT	2496998			MultiLayer Ceramic Capacitor; 10uF; 10V; 0805	10uF 16V ±10% 0805 Samsung
C23	27.3	105.69	270	0805	0.1uF	Walsin	0805B104K500CT	2496944			MultiLayer Ceramic Capacitor; 0.1uF; 50V; 0805; XTR	100nF 50V ±10% 0805 Samsung
C24	84.2	97.16	0	0603	1uF	Walsin	0603X105K100CT	2496916			MultiLayer Ceramic Capacitor; 1uF; 10V; 0603; XSR	1uF 50V ±10% 0603 Samsung
C25	92.71	92.84	0	0805	10uF	Walsin	0805F106Z100CT	2496998			MultiLayer Ceramic Capacitor; 10uF; 10V; 0805	10uF 16V ±10% 0805 Samsung
C26	28.45	87.63	270	0805	10uF	Walsin	0805F106Z100CT	2496998			MultiLayer Ceramic Capacitor; 10uF; 10V; 0805	10uF 16V ±10% 0805 Samsung
CON1	2.99	92.71	270		Micro_USB	Amphenol_FCI	10103594	2293752			Amphenol FCI 10103594 Micro USB Type B	A015B74X1821-167 Micro USB 5S B
CON2	41.78	83.57	0	uFL		Hirose	U.FL-R-SMTJ01	3908021			HIROSE U.FL-R-SMTJ01; U.FL Coaxial; Straight Jack; 50 ohm	
D1	82.18	105.57	180	SOD-123	MBR120	ON SEMICONDUCTOR	MBR120VLSFT1G	1431044			Schottky Rectifier; 20V; 1A; SOD-123	
D2	53.34	91.44	180	SOD-123	MBR120	ON SEMICONDUCTOR	MBR120VLSFT1G	1431044			Schottky Rectifier; 20V; 1A; SOD-123	
D3	53.34	111.76	180	SOD-123	MBR120	ON SEMICONDUCTOR	MBR120VLSFT1G	1431044			Schottky Rectifier; 20V; 1A; SOD-123	
D4	81.41	110.87	0	SOD-123	MBR120	ON SEMICONDUCTOR	MBR120VLSFT1G	1431044			Schottky Rectifier; 20V; 1A; SOD-123	
D5	10.16	93.98	180	SOD-123	MBR120	ON SEMICONDUCTOR	MBR120VLSFT1G	1431044			Schottky Rectifier; 20V; 1A; SOD-123	
D6	25.4	111.76	180	SOD-123	MBR120	ON SEMICONDUCTOR	MBR120VLSFT1G	1431044			Schottky Rectifier; 20V; 1A; SOD-123	
D7	95.89	70.99	0	SOD-123	MBR120	ON SEMICONDUCTOR	MBR120VLSFT1G	1431044			Schottky Rectifier; 20V; 1A; SOD-123	
IC1	83.82	90.17	0	TQFP48-7x7	SAMD21G18A-AFT	Atmel / Microchip	SAMD21G18A-AFT		556-ATSAMD21G18A-AFT			
IC2	94.49	140.34	0	SOP64P40X130-8N	SN74LVCG2D02CTR	Texas Instruments	SN74LVCG2D02CTR	1236358			NOR Gate, 2 Input, 32 mA, 1.65 V to 5.5 V, SSOP-8	
IC3	91.66	96.91	0	SOT23-3	MC9111T-240E/TT	Microchip	MC9111T-240E/TT	1627192			Reset Supervisor; SOT23-3; 2.40V; Open Drain; Active Low	
IC4	86.72	102.39	270	SOT23-5	SPX3819S-3.3	Exar	SPX3819MS-L-3-3/TR		701-SPX3819MS-L-33TR		LDO Voltage Regulator; 500mA; SOT-23-5	
IC5	53.98	82.42	270	SOT6P220X100-6N	AS179-92LF	Skyworks Solutions	AS179-92LF	1753762		873-AS179-92LF	Skyworks AS179-92LF RF Switch	
IC6	68.15	80.34	0		MAX-MBQ	u-blox	MAX-MBQ				https://www.u-blox.com/en/product/max-m8-series	
IC7	69.32	104.32	0	QFN-20	MPM3610	MPFS	MPM3610AQV-P		946-MPM3610AQV-P		Switching Voltage Regulator; 21V; 1.2A; DC/DC	
IC8	92.61	114.18	0	SOT23-5	74AHC1G125DBVR	Texas Instruments	SN74AHC1G125DBVR	1105927			Buffer / Line Driver; Single Gate	
IC9	90.55	109.34	180	SOT23-5	74AHC1G125DBVR	Texas Instruments	SN74AHC1G125DBVR	1105927			Buffer / Line Driver; Single Gate	
J1	41.09	94.65	270		SS4-10-3-50	Samtec	SS4-10-3-50-L-Q-K-TR	2085336			Samtec SS4-10-3-50-L-Q-K-TR	
LED1	91.8	76.52	0		WS2812B	Sparkfun / Worldsemi	WS2812B		474-COM-13667		RGB LED with Driver	
LED2	96.88	76.71	180	2-Dx1-25	RED	Würth Elektronik	150080MS75000	2322077		710-150080MS75000	LED; Red; 20mA; 2V; 2-Dx1-25mm	
Q1	79.93	79.8	0	SOT23	DMG3415U-7	Diodes Inc.	DMG3415U-7	1843688			MOSFET; P Channel; SOT23-WIDE	
Q2	65.15	92.08	180	SOT23	2N2222	Fairchild	MMBT2222A	9846700			Bipolar (BJT) Single Transistor, NPN, 40 V, 350 mW, 1 A	
Q3	60.96	89.28	180	SOT23	DMG3415U-7	Diodes Inc.	DMG3415U-7	1843688			MOSFET; P Channel; SOT23-WIDE	
Q4	15.39	132.49	0	SOT23	DMG3415U-7	Diodes Inc.	DMG3415U-7	1843688			MOSFET; P Channel; SOT23-WIDE	
Q5	15.31	125.13	0	SOT23	2N2222	Fairchild	MMBT2222A	9846700			Bipolar (BJT) Single Transistor, NPN, 40 V, 350 mW, 1 A	
Q6	35.54	102.23	180	SOT23	DMG3415U-7	Diodes Inc.	DMG3415U-7	1843688			MOSFET; P Channel; SOT23-WIDE	
Q7	40.36	105.79	0	SOT23	2N2222	Fairchild	MMBT2222A	9846700			Bipolar (BJT) Single Transistor, NPN, 40 V, 350 mW, 1 A	
Q8	92.43	130.05	180	SOT23	DMG3415U-7	Diodes Inc.	DMG3415U-7	1843688			MOSFET; P Channel; SOT23-WIDE	
Q9	92.43	125.1	0	SOT23	2N2222	Fairchild	MMBT2222A	9846700			Bipolar (BJT) Single Transistor, NPN, 40 V, 350 mW, 1 A	
Q10	21.59	87.63	90	SOT23	DMG3415U-7	Diodes Inc.	DMG3415U-7	1843688			MOSFET; P Channel; SOT23-WIDE	
R1	79.15	76.62	180	0805	100K	Multicomp	MC01W08051100K	9332405			Chip Resistor; Thick Film; 100k; 150V; 0805; 100mW	100K ±1% 0805 RoyalOhm
R2	64.24	105.79	270	0805	10K 0.1%	Panasonic	ERAB6R1912V	2094729			Resistor, Thin Film, 19K1, 0.1%, 0.125W, 0805	
R3	71.9	97.76	180	0805-NO	330K	Multicomp	MCWR06X3303FTL	2447637			Chip Resistor; Thick Film; 330k; 150V; 0805; 125mW	
R4	64.24	101.6	270	0805	100K_1%	Panasonic	ERJ1ENF1003V	2303757			Resistor, Thick Film, 100K, 1%, 0.125W, 0805	
R5	60.96	92.2	180	0805-NO	10K	Multicomp	MC01W0805510K	9333720			Chip Resistor; Thick Film; 10k; 150V; 0805; 100mW	
R6	76.37	97.76	180	0805	100K	Multicomp	MC01W08051100K	9332405			Chip Resistor; Thick Film; 10k; 150V; 0805; 100mW	100K ±1% 0805 RoyalOhm
R7	39.48	101.73	90	0603	1K	Multicomp	MCWR06X1001FTL	2447272			Chip Resistor; Thick Film; 1k; 50V; 0603; 100mW	1K ±1% 0603 RoyalOhm
R8	66.42	95.89	270	0603	1K	Multicomp	MCWR06X1001FTL	2447272			Chip Resistor; Thick Film; 1k; 50V; 0603; 100mW	1K ±1% 0603 RoyalOhm
R9	64.26	95.89	270	0603	10K	Multicomp	MCWR06X1002FTL	2447230			Chip Resistor; Thick Film; 10k; 50V; 0603; 100mW	10K ±1% 0603 RoyalOhm
R10	96.85	80.93	270	0603	2.2K	Multicomp	MCWR06X2201FTL	2447230			Chip Resistor; Thick Film; 2.2k; 50V; 0603; 100mW	
R11	64.24	109.98	270	0805	68K	Multicomp	MCWR08X6802FTL	2447706			Resistor, Thick Film, 68K, 1%, 0.125W	
R12	92.31	133.22	0	0603	10K	Multicomp	MCWR06X1002FTL	2447230			Chip Resistor; Thick Film; 10k; 50V; 0603; 100mW	10K ±1% 0603 RoyalOhm
R13	93.45	120.9	90	0603	1K	Multicomp	MCWR06X1001FTL	2447272			Chip Resistor; Thick Film; 1k; 50V; 0603; 100mW	1K ±1% 06