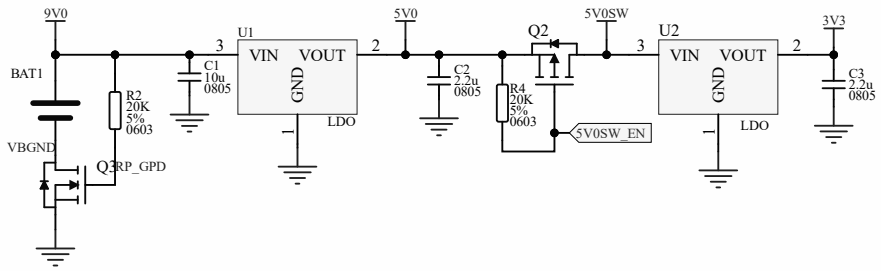
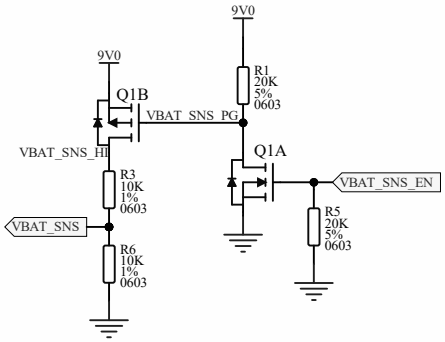
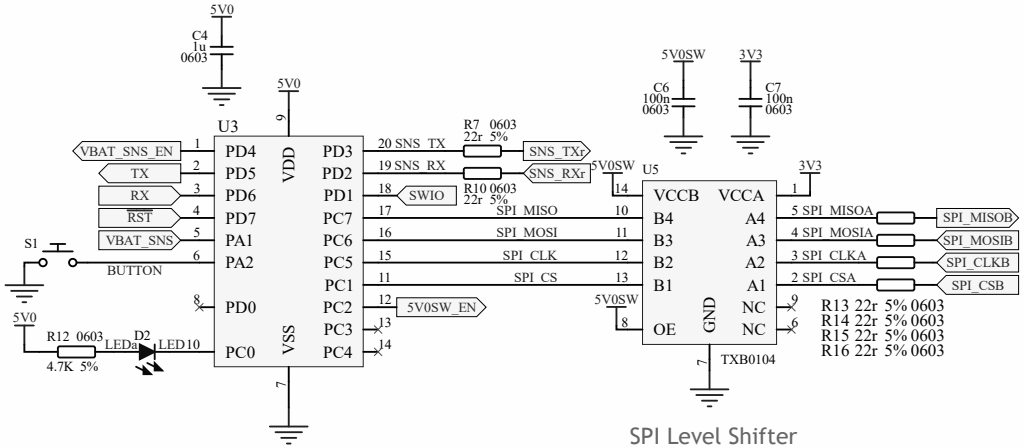
Power Supply



VBAT Sense

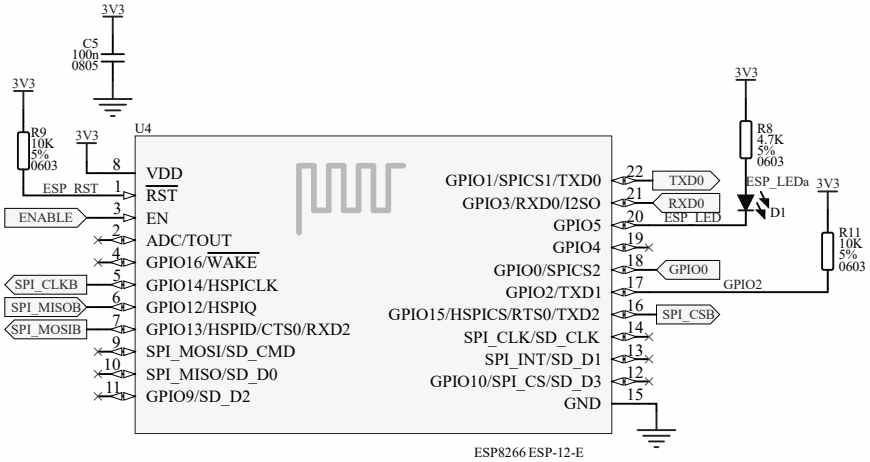


CH32V003



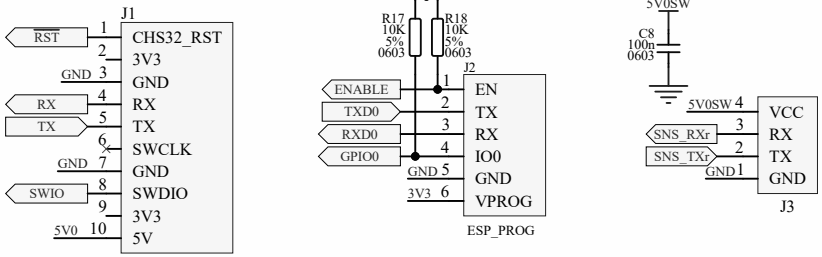
SPI Level Shifter

ESP WiFi

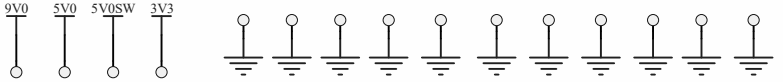


ESP8266 ESP-12-E

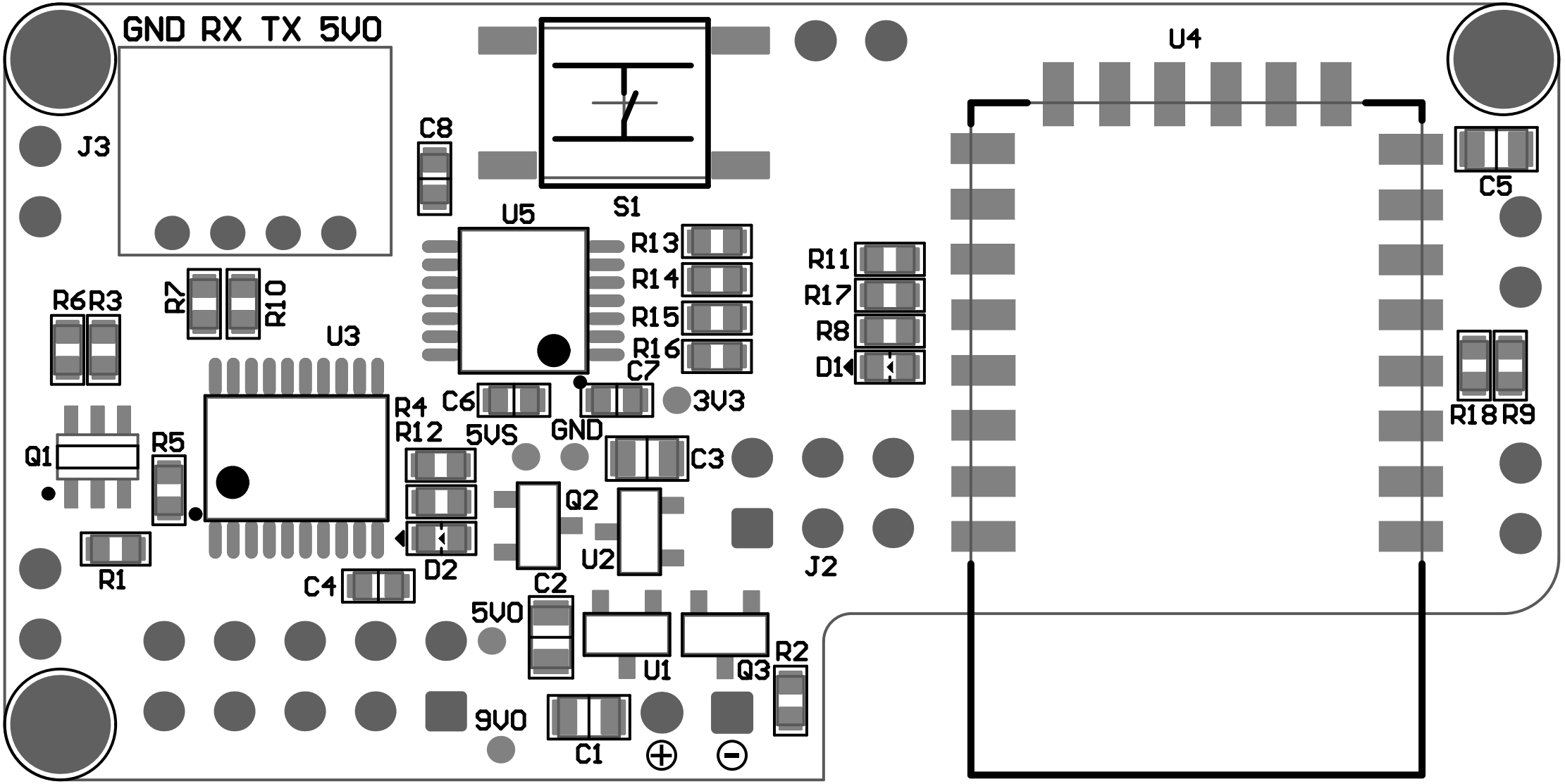
Connectors

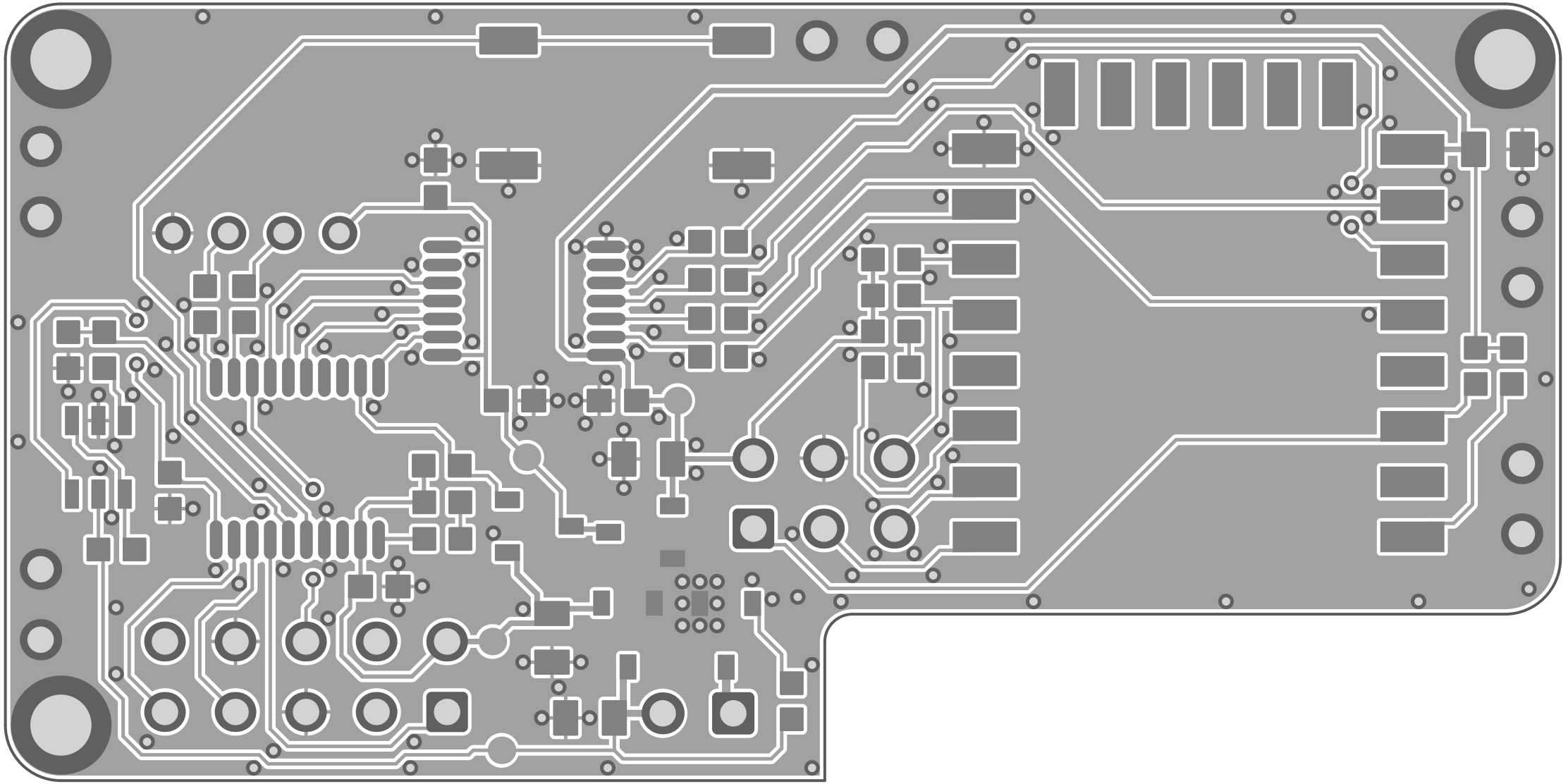


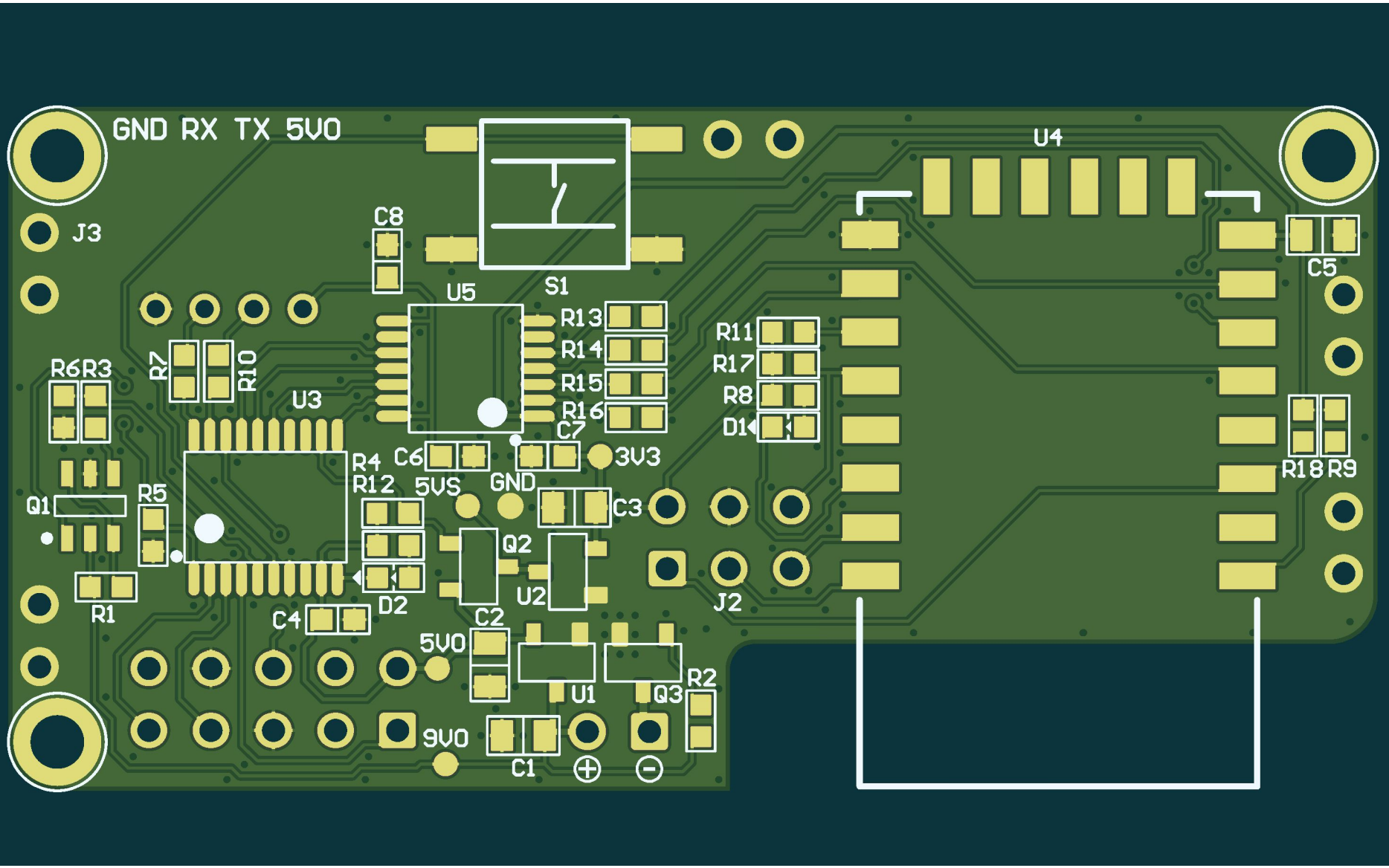
Test points



Distance Sensor	Revision 1 Saved on 12/08/2023
skilbeck.com	Sheet 1 of 1


GND RX TX 5V0
J3
C8
S1
U5
R13
R14
R15
R16
C7
3V3
C6
5VS
GND
R11
R17
R8
D1
U4
C5
R6
R3
R7
R10
U3
R4
R12
R18
R9
Q1
R5
C3
Q2
U2
J2
D2
C2
R1
C4
5V0
U1
Q3
R2
9V0
C1




GND RX TX 5V0
J3
C8
S1
U5
R13
R14
R15
R16
C7
3V3
GND
5VS
C6
R4
R12
C3
Q2
U2
D2
C2
5V0
C4
R1
R5
Q1
R6
R3
R7
R10
U3
U4
R11
R17
R8
D1
C5
R18
R9
J2
U1
Q3
R2
9V0
C1

Comment	Description	Designator	Footprint	LibRef	Quantity
10u	MLCC	C1	CAP 0805_2012	CAP_CERAMIC	1
2.2u	MLCC	C2, C3	CAP 0805_2012	CAP_CERAMIC	2
1u	MLCC	C4	CAP 0603_1608	CAP_CERAMIC	1
100n	MLCC	C5	CAP 0805_2012	CAP_CERAMIC	1
100n	MLCC	C6, C7, C8	CAP 0603_1608	CAP_CERAMIC	3
	LED	D1, D2	SMT_LED 0603_RED	LED	2
RCWL-1670		J3	JST_PH_4WAY	RCWL-1670	1
MOSFET-NP	N/P Channel MOSFET	Q1	DMG6601LVT	MOSFET-NP	1
MOSFET-P	P Channel MOSFET. 300mA	Q2	SOT95P230X110-3L	MOSFET-P	1
MOSFET-N	N Channel MOSFET. 300mA	Q3	SOT95P230X110-3L	MOSFET-N	1
20K	Resistor	R1, R2, R4, R5	RES 0603_1608	RESISTOR	4
10K	Resistor	R3, R6, R9, R11, R17, R18	RES 0603_1608	RESISTOR	6
22r	Resistor	R7, R10, R13, R14, R15, R16	RES 0603_1608	RESISTOR	6
4.7K	Resistor	R8, R12	RES 0603_1608	RESISTOR	2
4-1437565-1	6x6mm SMD tactile switch,SPST-NO	S1	FSM-SWITCH	BUTTON	1
LDO	5v LDO, 100mA, LDO SOT23	U1, U2	SOT95P230X110-3L	LDO_5V, LDO	2
CH32V003	MCU	U3	TSOP20-127P600-8N	CH32V003	1
ESP8266 ESP-12-E	WiFi Module	U4	ESP8266 ESP-12-E	ESP8266 ESP-12-E	1
TXB0104	Level shifter	U5	TSOP14-127P600-8N	TXB0104	1

Design Rules Verification Report

Filename : U:\dev\distance_sensor\pcb\distance_sensor\distance_sensor.PcbDoc

Warnings 0
Rule Violations 0

Warnings	
Total	0

Rule Violations	
Clearance Constraint (Gap=5mil) (All),(All)	0
Short-Circuit Constraint (Allowed=No) (All),(All)	0
Un-Routed Net Constraint ((All))	0
Modified Polygon (Allow modified: No), (Allow shelved: No)	0
Width Constraint (Min=5mil) (Max=100mil) (Preferred=10mil) (All)	0
Routing Layers(All)	0
Routing Via (Templates Used To Check Via: GND_PIN, GND_VIA, PWR_VIA, SIGNAL_VIA) (All)	0
Power Plane Connect Rule(Relief Connect)(Expansion=20mil) (Conductor Width=10mil) (Air Gap=10mil) (Entries=4	0
Minimum Annular Ring (Minimum=5.118mil) (All)	0
Hole Size Constraint (Min=11.811mil) (Max=137.795mil) (All)	0
Hole To Hole Clearance (Gap=10mil) (All),(All)	0
Minimum Solder Mask Sliver (Gap=3.937mil) (All),(All)	0
Silk To Solder Mask (Clearance=10mil) (False),(All)	0
Silk to Silk (Clearance=10mil) (False),(All)	0
Net Antennae (Tolerance=0mil) (All)	0
Board Clearance Constraint (Gap=0mil) ((Not Layer='Top Overlay') And (Not Layer='Bottom Overlay')	0
Matched Lengths(Delay Tolerance=100ps) (InDifferentialPair('USB_D')	0
Component Clearance Constraint (Horizontal Gap = 6mil, Vertical Gap = 10mil) (All),(All)	0
Height Constraint (Min=0mil) (Max=39370.079mil) (Prefered=500mil) (All	0
Total	0

Electrical Rules Check Report

Class	Document	Message
		Successful Compile for