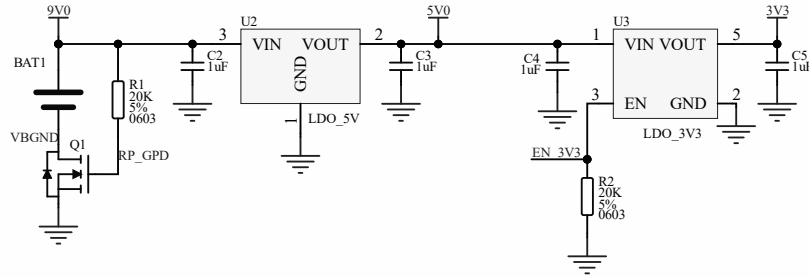
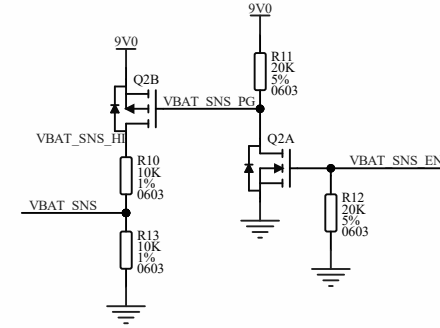


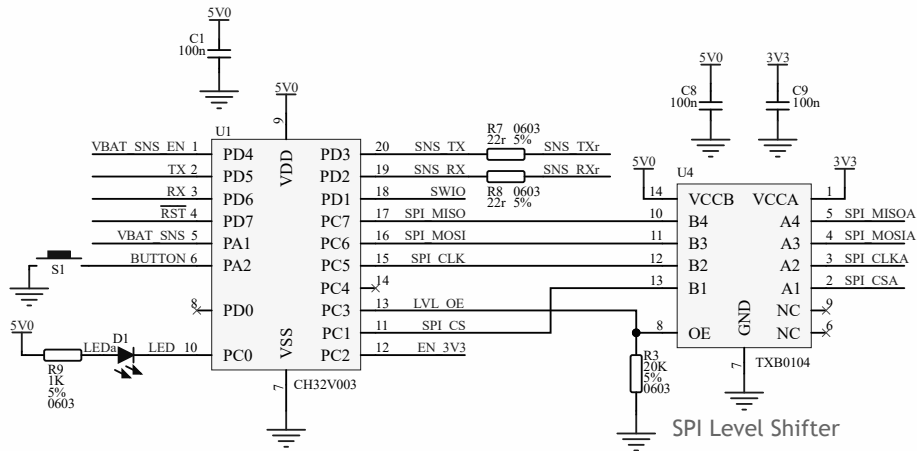
## Power Supply



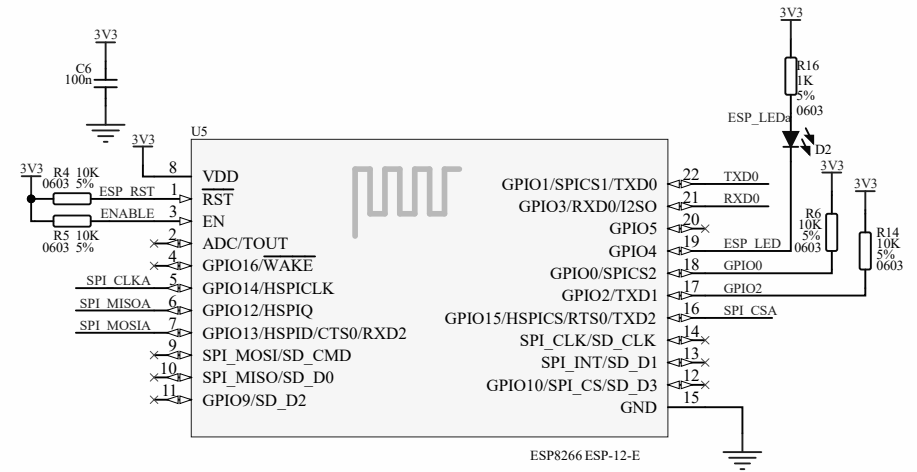
## VBAT Sense



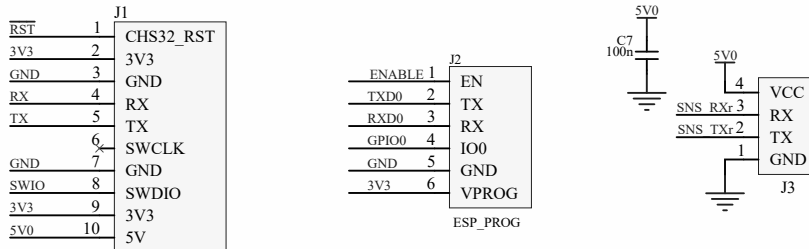
## CH32V003



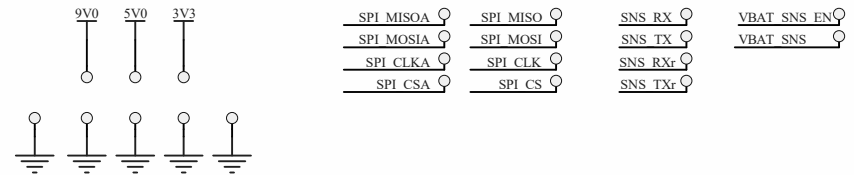
## ESP WiFi



## Connectors



## Test points

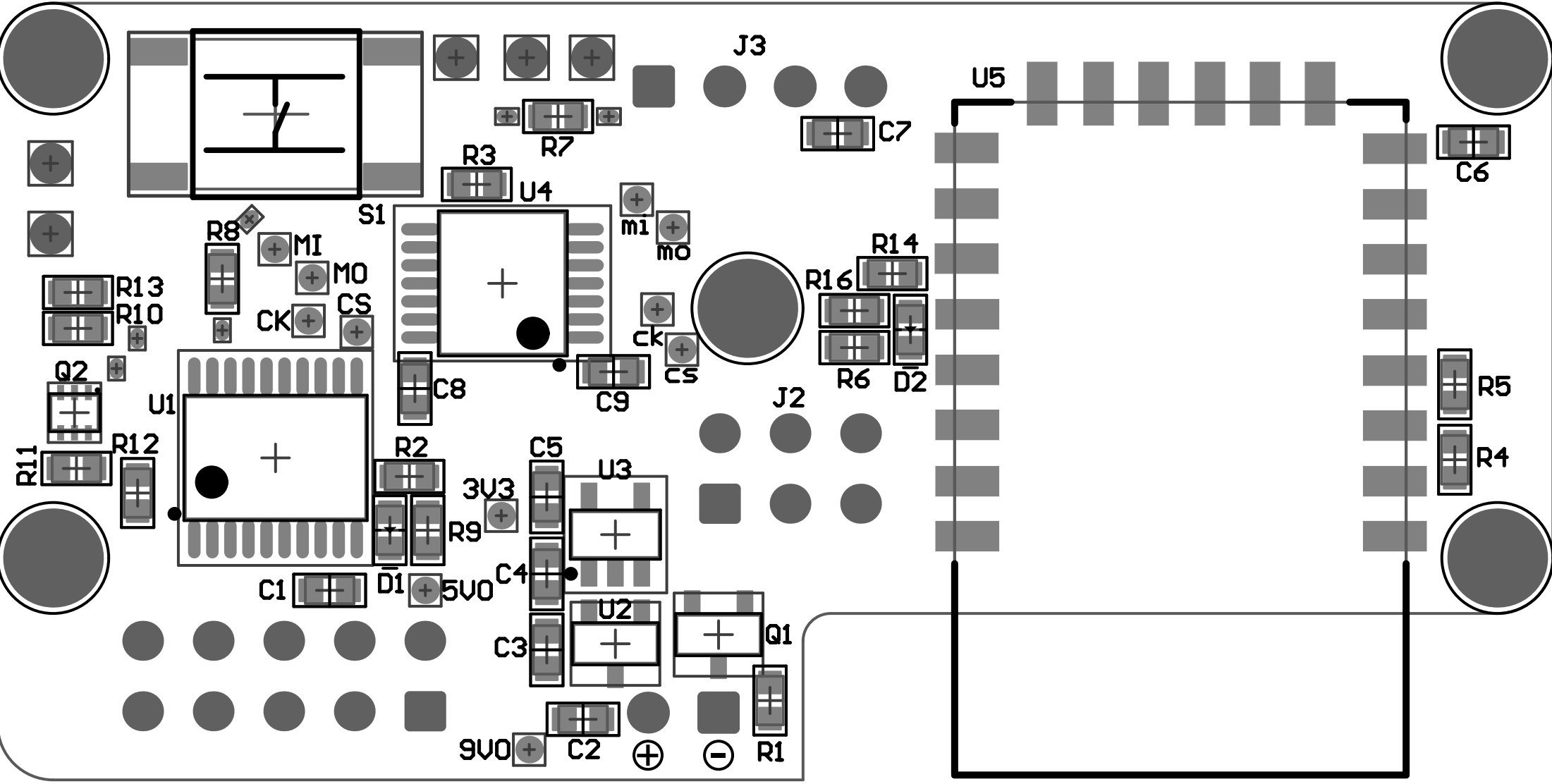


Distance Sensor

[skilbeck.com](http://skilbeck.com)

Revision 1  
Saved on 11/07/2023

Sheet 1 of 1



## Design Rules Verification Report

Filename : U:\dev\distance\_sensor\pcb\distance\_sensor\distance\_sensor.PcbDoc

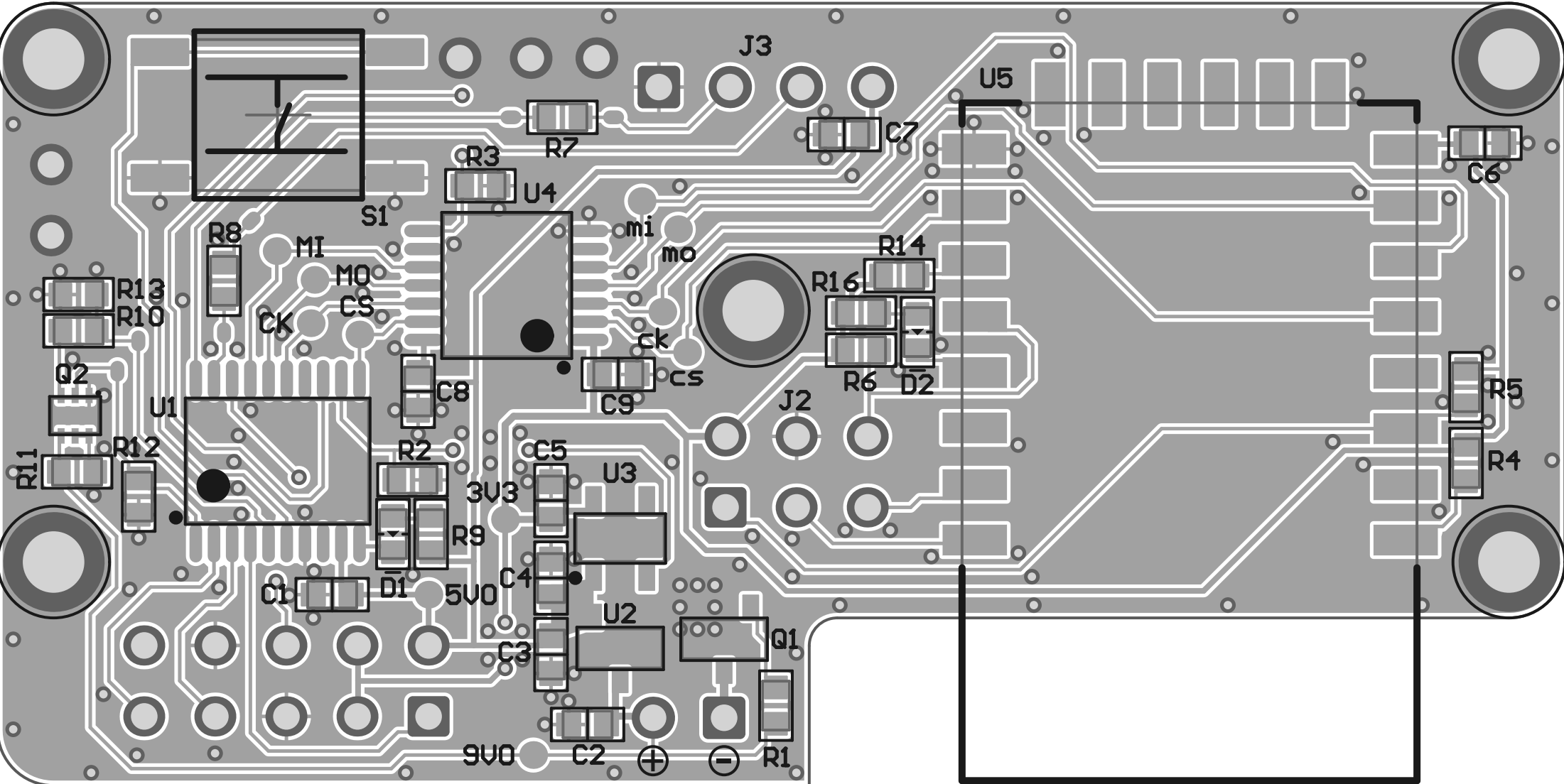
Warnings 0  
Rule Violations 0

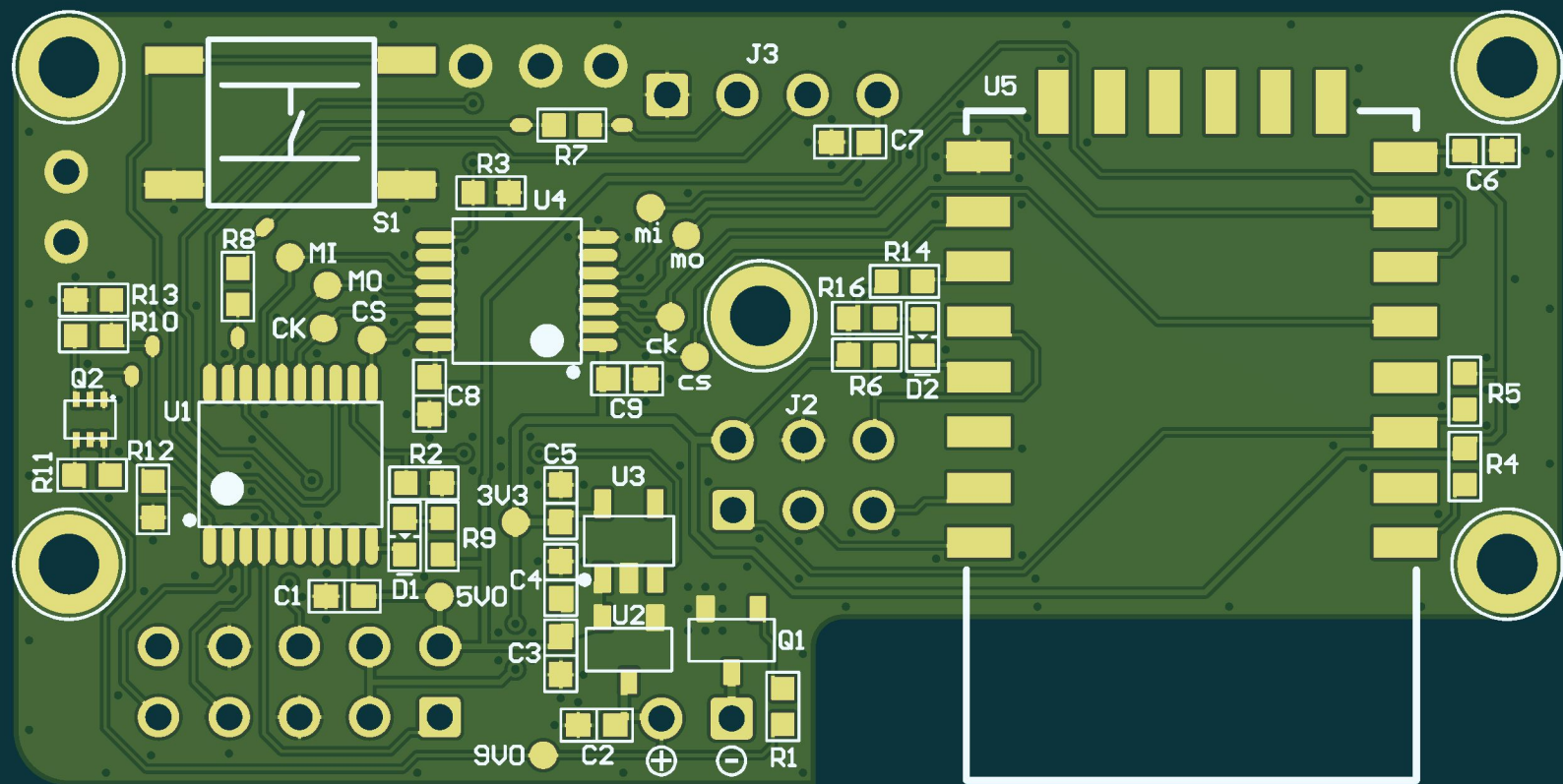
Warnings	
Total	0

Rule Violations	
Clearance Constraint (Gap=0.127mm) (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=0.127mm) (Max=2.54mm) (Preferred=0.254mm) (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=0.508mm) (Conductor Width=0.254mm) (Air Gap=0.254mm)	0
Minimum Annular Ring (Minimum=0.13mm) (All)	0
Hole Size Constraint (Min=0.3mm) (Max=3.5mm) (All)	0
Hole To Hole Clearance (Gap=0.254mm) (All),(All)	0
Minimum Solder Mask Sliver (Gap=0.1mm) (All),(All)	0
Silk To Solder Mask (Clearance=0.254mm) (False),(All)	0
Silk to Silk (Clearance=0.254mm) (False),(All)	0
Net Antennae (Tolerance=0mm) (All)	0
Board Clearance Constraint (Gap=0mm) ((Not Layer='Top Overlay') And (Not Layer='Bottom Overlay'))	0
Matched Lengths(Delay Tolerance=100ps) (InDifferentialPair('USB_D'))	0
Component Clearance Constraint ( Horizontal Gap = 0.152mm, Vertical Gap = 0.254mm ) (All),(All)	0
Height Constraint (Min=0mm) (Max=1000mm) (Preferred=12.7mm) (All)	0
Total	0

Electrical Rules Check Report

Class	Document	Message
		Successful Compile for





Comment	Description	Designator	Footprint	LibRef	Quantity
100n	MLCC	C1, C6, C7, C8, C9	CAP 0603_1608	CAP_CERAMIC	5
1uF	MLCC	C2, C3, C4, C5	CAP 0603_1608	CAP_CERAMIC	4
	LED	D1, D2	SMT_LED 0603_RED	LED	2
RCWL-1670		J3	RCWL-1670	RCWL-1670	1
MOSFET-N	P Channel MOSFET. 300mA	Q1	SOT95P230X110-3L	MOSFET-N	1
MOSFET-NP	N/P Channel MOSFET	Q2	SOT563	MOSFET-NP	1
20K	Resistor	R1, R2, R3, R11, R12	RES 0603_1608	RESISTOR	5
10K	Resistor	R4, R5, R6, R10, R13, R14	RES 0603_1608	RESISTOR	6
22r	Resistor	R7, R8	RES 0603_1608	RESISTOR	2
1K	Resistor	R9, R16	RES 0603_1608	RESISTOR	2
4-1437565-1	6x6mm SMD tactile switch,SPST-NO	S1	FSM-SWITCH	BUTTON	1
CH32V003	MCU	U1	TSOP20-127P600-8N	CH32V003	1
LDO_5V	5v LDO, 100mA	U2	SOT95P230X110-3L	LDO_5V	1
LDO_3V3	3.3v LDO	U3	SOT23-5	NCV8711	1
TXB0104	Level shifter	U4	TSOP14-127P600-8N	TXB0104	1
ESP8266 ESP-12-E	WiFi Module	U5	ESP8266 ESP-12-E	ESP8266 ESP-12-E	1