













| Designator                   | Quantity | Name               | Footprint               | Description                  |
|------------------------------|----------|--------------------|-------------------------|------------------------------|
| LDO1                         | 1        | SPX3819M5-L-3-3    | SOT23-5                 |                              |
| LDO2                         | 1        | AP2139AK3.3        | SOT23-5                 |                              |
| FACTORY                      | 1        | 4-1437565-1        | FSM-SMTCH               | 6x6mm tactile switch SPST_NO |
| L1                           | 1        | 1.6nH              | INDUCTOR_0603           | Inductor                     |
| DS1                          | 1        | 4mA                | LED 5mm through hole    | LED                          |
| C1                           | 1        | 100nF              | CAP 0805_2012           | MLCC                         |
| C2, C3, C5                   | 3        | 4.7uF              | CAP 0805_2012           | MLCC                         |
| C7, C8, C11, C12             | 4        | 2.2uF              | CAP 0805_2012           | MLCC                         |
| C13                          | 1        | 1uF                | CAP 0603_1608           | MLCC                         |
| Q1                           | 1        | MOSFET-N           | SOT95P230X110-3L        | N Channel MOSFET. 300mA      |
| Q2, Q3                       | 2        | MOSFET-NP          | DMG6601LVT              | N/PChannel MOSFET            |
| RTC                          | 1        | RV-8263-C7         | RV-8263-C7              | Real-Time Clock Module       |
| R1, R4, R6, R7, R8, R9, R10, |          | 3 47K              | RES 0603_1608           | Resistor                     |
| R16                          |          |                    |                         |                              |
| R2, R13, R15, R17, R18       | 5        | 47K                | RES 0603_1608           | Resistor                     |
| R3, R5                       | 2        | 10K                | RES 0603_1608           | Resistor                     |
| R11, R12                     | 2        | 2K2                | RES 0603_1608           | Resistor                     |
| D2, D3                       | 2        | BAT20JFILM         | SODFL250X100-2L         | Schottky Diode 20v 500mA     |
| SENSOR                       | 1        | VL53L5CXV0GC       | VL53L5CXV0GC1           | TOF distance sensor          |
| WF                           | 1        | ESP32-C3-MINI-1-N4 | XCVR_ESP32-C3-MINI-1-N4 | Wifi module ESP32-C3         |

Design Rules Verification Report
Filename: U:\dev\distance\_sensor\pcb\distance\_sensor\_v2\

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=1.27mm) (Preferred=0.127mm) (All                                    | 0 |
| Power Plane Connect Rule(Relief Connect )(Expansion=0.508mm) (Conductor Width=0.254mm) (Air Gap=0.254mm | 0 |
| Hole Size Constraint (Min=0.3mm) (Max=5mm) (All)  | 0 |
| Hole To Hole Clearance (Gap=0.254mm) (All),(All)  | 0 |
| Minimum Solder Mask Sliver (Gap=0.08mm) (All),(All)   | 0 |
| Silk To Solder Mask (Clearance=0.254mm) (False),(All)   | 0 |
| Silk to Silk (Clearance=0mm) (All),(All)  | 0 |
| Net Antennae (Tolerance=0mm) (All)  | 0 |
| Board Clearance Constraint (Gap=0mm) (OnSignal)   | 0 |
| Height Constraint (Min=0mm) (Max=25.4mm) (Prefered=12.7mm) (All   | 0 |
| Total   | 0 |

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## **Electrical Rules Check Report**

| Class | Document | Message                |
|-------|----------|------------------------|
|       |          | Successful Compile for |
|       |          |                        |

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