

| Line # | Designator         | Value          | Description  |
|--------|--------------------|----------------|--|
|        |                    |                |  |
|        | C22                | 100pF          | Ceramic cap size 0805  |
|        | C23, C24           | 100nF          | Ceramic cap size 1206 C1206C104K1RACTU   |
|        | C25                | 22pF           | Ceramic cap size 0805  |
|        | FB1, FB2           | 40mR, 3A 25%   | 0805, 60O, 3A, 25% SMT   |
|        | J5                 |                | 3.5mm Jack 4-pole with normally closed switches  |
|        | J6                 |                | 3.5mm Jack 4-pole with normally closed switches  |
|        | L1                 | 2.2uH          | Shielded Power Inductor 2.2 uH 20% 2.2 A 50.4 mohms 3.11 A (sat) 60MHz<br>4018: 4x4x1.8mm              |
|        | Q1                 |                | Dual N-channel Enhancement mode power MOSFET   |
|        | Q2                 |                | MJD210 PNP BJT transistor DPAK (decawatt) 5A dc  |
|        | Q6                 |                | 65 V, 100 mA PNP general-purpose transistor  |
|        | R1                 | 150K           | Res size 0805 SMD mounting, low power<br>Yageo-RC0805FR-07150KL  |
|        | R8                 | 1.2K           | Res size 0603 SMD mounting, low power  |
|        | R14, R17           | 1M             | Res size 0805 SMD mounting, low power.<br>Yageo-RC0805FR-071ML   |
|        | R23, R24           | 220            | Res size 0603 SMD mounting, low power  |
|        | R26, R27, R28, R29 | 150            | Res size 0603 SMD mounting, low power  |
|        | R36                | 22K            | Res size 0603 SMD mounting, low power  |
|        | RT1                | 10K            | NTC THERMISTOR 10K for solding a cable from the battery NTC  |
|        | U1                 |                | 1.0MHZ, 2A STEP-DOWN DC-DC BUCK CONVERTER, with latch-off protection                                   |
|        | U2                 | LDO 1.8V, 80mA | Fixed output lowdropout linear regulator.<br>1.8 V 80 mA   |
|        | U6                 |                | LMV358IDGKR Dual OpAmp; low voltage rail to rail opamp; 2.7V to 5V Vss; ESD protection; MSOP-8 Package |

|    |   |       |   |
|----|---|-------|---|
|    | U10   |       | HX711 load cell amplifier   |
|    | U11   |       | TPD3S014TDBVRQ1 ESD prot. & current limit   |
| 4  | C1, C14, C34  | 47pF  | Ceramic cap size 0805   |
| 5  | C2, C8, C13, C15, C17, C18, C20, C21, C27, C30, C31, C32, C33, C35, C37, C39, C40, C41, C42 | 100nF | Ceramic cap size 0805   |
| 6  | C3, C16, C26, C29, C36, C38   | 10uF  | Ceramic cap size 0805   |
| 7  | C5  | 27pF  | Ceramic cap size 0805   |
| 8  | C4, C6, C7, C9, C12, C43  | 22uF  | Ceramic cap size 0805 CC0805MKX5R6BB226 Yageo MLCC 22uF 10V 20% X5R                                     |
| 9  | C10, C11, C19   | 1uF   | Ceramic cap size 0805   |
| 12 | C28   | 470pF | Ceramic cap size 0805   |
| 13 | D2, D3, D4, D5, D12, D13  |       | SURFACE MOUNT FAST SWITCHING DIODE  |
| 14 | D1, D6, D8, D10   |       | Low power LED color Green   |
| 15 | D7, D9, D11   |       | Low power LED color Red   |
| 18 | J1  |       | USB-MINI-B Female, Manufacturer PN/ID: 10033526-N3212LF   |
| 19 | J2, J3  |       | BNC coaxial female connector  |
| 20 | J4  |       | ILI9341 TFT LCD Jumper pin headers., plus SD card reader pins   |
| 22 | MCU1  |       | - Transceiver; 802.11 b/g/n _Wi-Fi, WiFi, WLAN_, Bluetooth Smart Ready 4.x Dual Mode For Use With ESP-W |
| 25 | Q3, Q4  |       |   |
| 26 | Q5  |       | PMOS BSS84AK  |
| 27 | R18, R21, R22   | 4.7K  | Res size 0603 SMD mounting, low power   |
| 29 | R3  | 33K   | Res size 0805 SMD mounting, low power   |
| 30 | R4, R5, R25   | 0R    | Res size 0603 SMD mounting, zero-ohm 0R Yageo RC0603JR-070RL  |
| 31 | R9, R10, R11, R12, R13, R35, R37, R38, R39, R40   | 10K   | Res size 0603 SMD mounting, low power   |
| 32 | R2, R6, R33, R34  | 100R  | Res size 0603 SMD mounting, low power   |
| 33 | R7, R15, R16  | 1K    | Res size 0603 SMD mounting, low power   |

|    |               |      |   |
|----|---------------|------|---|
| 38 | R19           | 1.5K | Res size 0603 SMD mounting, low power   |
| 39 | R20           | 0.2R | Res size 1206 SMD mounting, high power, shunt, current sense.                 |
| 40 | R30, R31, R32 | 100K | Res size 0603 SMD mounting, low power   |
| 42 | S1            |      | SWITCH Multidirection Slide Push Button SMD TS-003                            |
| 43 | S2, S3, S4    |      | Generic 2 pin button  |
| 46 | U3            |      | DW01A One cell Li-Po/Li-ion Battery protection IC                             |
| 47 | U4            |      | 1A Standalone Linear Li-Ion Battery Charger with Thermal Regulation in SOP-8  |
| 48 | U5            |      | Very low capacitance ESD protection   |
| 50 | U7            |      | LTC4060EFE  |
| 51 | U8            |      | Zero-Drift, Bi-Directional CURRENT/POWER MONITOR with I2C. SOIC-8 (D) Package |
| 52 | U9            |      | USB to serial chip CH340C, integrated oscillator.                             |