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| Title | | |
| Size | Number | Revision |
| A3 | | |
| Date: | 05.09.2018 | Sheet of |
| File: | C:\Users\...ESP8266.SchDoc | Drawn By: |

| Comment | Description | Designator | Footprint | LibRef | Quantity |
|--------------------------|--|---|--------------------------|--------------------------|----------|
| Stackable Screw Term | Terminal Block Screw Type TH 2-Position 3.81mm pitch | 5V, 12V, 220V, CH1, CH2, CH3, CH4, CH5, CH6, CH7, CH8 | TE 282834-2 | 2P_ScrewTerm_905_3.81MM | 11 |
| AD51015IDGSR | 12-Bit ADC with Integrated Multiplexer, PGA, Comparator, Oscillator, and Reference. -40 to 125 degC, 10-pin SOP (DGS10), Green (RoHS & no Sb/Br) | A1 | TI-DGS10_N | CMP-0003-00374-2 | 1 |
| Bootload | Switch, SPST Push Button, 50 mA, 12 V DC, SMD, -30 to 85 degC, RoHS | BOOT | SPST-2 | CMP-0587-00001-2 | 1 |
| Battery | Multicell Battery | BT1 | BAT-2 | Battery | 1 |
| Alternate part: 3100-932 | Speaker, Magnetic Transducer | BZ1 | BUZZER_12_0X8.5MM | BZ_12x8.5x6.5_2kHz | 1 |
| Cap Semi | Capacitor (Semiconductor SIM Model) | C1, C2, C3, C4, C5 | C1206 | Cap Semi | 5 |
| 100nF | Capacitor, polarized, generic | C6 | C Elec TH V 4x7-2.5 | C Pol | 1 |
| 3.3u | Tantalum Capacitor, 330 uF, +/- 20%, 2.5 V, -55 to 105 degC, 2-Pin Molded, RoHS, Tape and Reel | C7, C8, C9, C13, C16 | KEMT-520-B-2_L | CMP-1664-00002-2 | 5 |
| 0.1u | Capacitor SMD Cer 6.8nF 5% 50V NP0 1206 | C10, C11, C14, C15 | CAPC3216X180N | CAPC_6n8_1206_NP0_50V | 4 |
| 100u | Capacitor, Tantalum, 100 uF, +/- 10%, -55 to 125 degC, 2-Pin SMD, RoHS, Tape and Reel | C12 | KEMT-1491-D_L | CMP-1664-00011-1 | 1 |
| BT139-600 | Triacs, Silicon Bidirectional Thyristor, 3-Pin TO-220, Pb-Free, Tube | D1, D2, D3, D4, D9, D10, D11, D12 | ONSC-TO-220-3-221A-07 | CMP-1070-00060-1 | 8 |
| 1N4007 | 1 A Rectifier Diode, 1000 V, -45 to 175 degC, 2-Pin DO-214AC | D5, D7 | KESE-DO-214AC_V | CMP-0983-00001-1 | 2 |
| 1N4148WT-7 | Surface Mount Fast Switching Diode, -65 to 150 degC, 2-Pin SOD523, RoHS, Tape and Reel | D6, D8 | DIOD-SOD523-2_V | CMP-2000-05518-1 | 2 |
| Header 3 | Header, 3-Pin | DS1 | HDR1X3 | Header 3 | 1 |
| Header 2 | Header, 2-Pin | FAN1, FAN2 | HDR1X2 | Header 2 | 2 |
| I2C | | I2C1, I2C2, I2C3 | 1x4x2.54 Pin Header TH V | Header 1x4 | 3 |
| LED DIMM | | LED | 1x7x2.54 Pin Header TH V | Header 1x7 | 1 |
| Green | LED 0805 SMD Green 12mcd 569nm | LED0, LED1, LED2, LED3, LED4, LED5, LED6, LED7 | LED-0805-K | LED_SMD_Green_0805_12mcd | 8 |
| PH | | PH | 1x4x2.54 Pin Header TH V | Header 1x4 | 1 |
| PNP | PNP Bipolar Transistor Plastic Medium-Power Silicon NPN Transistor, 3-Pin TO-225, Pb-Free, Bulk Box | Q1 | SOT-23B_N | PNP | 1 |
| BD139G | | Q2, Q5 | ONSC-TO-225-3-77-09 | CMP-1048-01269-1 | 2 |
| BSS138 | N-Channel Logic Level Enhancement Mode Field Effect Transistor, 220 mA, 50 V, -55 to 150 degC, 3-Pin SOT-23, RoHS, Tape and Reel | Q3, Q4 | FAIR-SOT23-3_V | CMP-1670-00009-1 | 2 |
| 360 | Resistor | R1, R5, R7, R13, R14, R17, R18, R21, R22, R26, R27, R30, R31, R35, R40, R50 | AXIAL-0.4 | Res2 | 16 |
| 470 | Resistor | R2, R8, R15, R19, R24, R28, R32, R51 | J1-0603 | Res3 | 8 |
| Res4 | Resistor | R3, R49, R51 | J1-0603 | Res3 | 3 |
| Res3 | Resistor | R4, R6, R9, R10, R11, R12, R16, R20, R23, R25, R29, R33, R34, R36, R37, R38, R39, R52 | J1-0603 | Res3 | 18 |
| 60 | Resistor | R41, R42, R43, R44, R45, R46, R47, R48 | J1-0603 | Res3 | 8 |
| Reset | Switch, SPST Push Button, 50 mA, 12 V DC, SMD, -30 to 85 degC, RoHS | RST | SPST-2 | CMP-0587-00001-2 | 1 |
| MOC3041M | Triac & SCR Output Optocouplers DIP-6 ZERO TRIAC | U1, U3, U4, U6, U9, U10, U11, U12 | PDIP6-300-W | MOC3041M | 8 |
| PCA9685PW/Q900,118 | Fm- I2C-Bus LED Driver with 126 I2C Address, 16Bits, 1000 kHz, 2.3 to 5.5 V, -40 to 85 degC, 28-Pin TSSOP (SOT361-1), RoHS, Reel | U2 | SOT361-1_V | CMP-1268-00014-1 | 1 |
| ESP8266-12E/ESP-12E | None | U5 | XCVR_ESP8266-12E/ESP-12E | ESP8266-12E/ESP-12E | 1 |
| DS3231SN | Extremely Accurate I2C-Integrated Real-Time Clock/TCXO/Crystal, 16-Pin SO, -40 to 85 degC | U7 | W16-H2_L | CMP-0254-00293-1 | 1 |
| LT1117IST-3.3 | 0.8 A Low Dropout Positive Regulator, 2.45 to 15 V Vin, 3.3 V Vout, 3-pin SOT223 (ST-3), -40 to 125 degC | U13 | LT-ST-3-SOT-223_L | CMP-0476-01824-1 | 1 |
| Header 4 | Header, 4-Pin | UART1 | HDR1X4 | Header 4 | 1 |
| Water | | WATER | 1x4x2.54 Pin Header TH | Header 1x4 | 1 |