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| Title | | | |
| Size A3 | Number | | Revision |
| Date: | 2020. 08. 23. | Sheet | of |
| File: | D:\Elektronika\...\CONTROL_BOARD_V2.schDoc | | |

| Designator | Quantity | Name | Value | Description | Distributor | Reference ID | Comment |
|------------------------|----------|-------------|-----------------|---|---------------|--------------|------------------|
| BAT1 | 1 | | | battery | | | |
| C1, C2, C5, C6, C10, C | 9 | | 100n | NON POLARIZED CAPACITOR | | | 100n |
| C3, C7, C8 | 3 | | 10u | POLARIZED CAPACITOR | | | 10u |
| C4, C9 | 2 | | 220uF | POLARIZED CAPACITOR | | | 220uF |
| C11 | 1 | | 4,7u | NON POLARIZED CAPACITOR | | | 4,7u |
| C12 | 1 | | 1u | NON POLARIZED CAPACITOR | | | 1u |
| C17, C18 | 2 | | 6.8p | NON POLARIZED CAPACITOR | | | 6.8p |
| D3 | 1 | MBR360 | MBR360 | ON Semiconductor MBR360, SCHOTTKY | | | MBR360 |
| D4 | 1 | PNS40010ER | PNS40010ER,115 | Nexperia PNS40010ER, 115 switching diode 1.4 | RS Components | 136-4874 | PNS40010ER |
| J1 | 1 | T821 | T821110A1S100C | T821, 10pin, 2x5 connector, 2.54mm | RS Components | 832-3528 | T821110A1S100CEU |
| J2 | 1 | | | 5PIN miniUSB SMD connector | LOMEX | 43-28-33 | |
| J3 | 1 | | UART | 4 PIN HEADER | | | UART |
| J4 | 1 | | | 5 PIN HEADER | | | |
| J5 | 1 | | | 2 PIN HEADER | | | |
| J6 | 1 | 5V 2A DC | 282837-2 | 2 Pin Terminal Block | RS Components | 710-0100 | 5V 2A DC |
| JP1 | 1 | BOOT0 | | JUMPER | | | BOOT0 |
| JP2 | 1 | RESET | | JUMPER | | | RESET |
| M1 | 1 | NodeMCU | | Node MCU ESP12 module | | | NodeMCU |
| R1 | 1 | | 2k | RESISTOR | | | 2k |
| R2, R4, R6, R9 | 4 | | 1k | RESISTOR | | | 1k |
| R3, R5 | 2 | | 22R | RESISTOR | | | 22R |
| R7, R10, R11, R12, R | 5 | | 10k | RESISTOR | | | 10k |
| R8 | 1 | | 0R | RESISTOR | | | 0R |
| U1 | 1 | | | Voltage level shifter | | | |
| U2 | 1 | LM2937 | LM2937IMP-3.3/N | LDO-regulator 400mA 3,3 V 5%, 4,75 → 26 V | RS Components | 761-5599 | LM2937 |
| U3 | 1 | STM32F446 | STM32F446RET6 | MCU STM32F446RET6 32bit, ARM Cortex M4, | RS Components | 110-6621 | STM32F446 |
| U4 | 1 | TMP100 | TMP100 | Temperature sensor with I2C interface | | | TMP100 |
| X1 | 1 | X32K768L104 | 32.768 kHz | Crystal, 32.768 kHz, Cylinder Radial, 8mm x 3 | Farnell | 9509682 | 32.768 kHz |