Bill of Materials



Product: Test 3 DIY Kit

SKU JORANT3DIY Revision B 2017-02-17 CC-BY-SA

| Component | Index | RefDes | Q'ty | Case/dim. | Tech. | Marking | Manufacturer | Manufacturer SKU | Supplier | Supplier SKU | Datasheet/drawing |
|---|-------|--|------|------------------------------|-------|----------------|--------------|--------------------|----------|-----------------------|-------------------|
| 78L05AB voltage regulator, +5 V, 100 mA | 3 | IC1 | 1 | SOT-89 | SMT | 8C | Generic | L78L05ABUTR | Mouser | 511-L78L05ABU | L78L |
| INA199A2 current sense amplifier | 4 | IC2 IC3 IC4 | 3 | SOT-353 | SMT | ОВН | TI | INA199A2DCKT | Mouser | 595-INA199A2DCKT | INA199 |
| MCP6001 op-amp | 5 | IC5 | 1 | SOT-23 | SMT | AA | Microchip | MCP6001T-I/OT | Mouser | 579-MCP6001T-I/OT | MCP6001 |
| ATmega328P microcontroller | 6 | IC6 | 1 | TQFP-32 | SMT | MEGA328P AU | Atmel | ATmega328P-AU | Mouser | 556-ATMEGA328P-AU | ATmega328P |
| DMP3099L P-channel enhancement MOSFET | 7 | T1 T2 | 2 | SOT-23 | SMT | D99 | Diodes Inc. | DMP3099L-7 | Mouser | 621-DMP3099L-7 | DMP3099L |
| DMN3404L N-channel enhancement MOSFET | 8 | T3 | 1 | SOT-23 | SMT | 34N | Diodes Inc. | DMN3404L-7 | Mouser | 621-DMN3404L-7 | DMN3404L |
| LL4148 silicon diode | 9 | D1 | 1 | SOD-80 | SMT | / | Generic | LL4148 | Mouser | 512-LL4148 | LL4148 |
| 7-segment LED display, 4 digits, common anode, red | 10 | LED1 | 1 | LFD039xUE-102A | THT | LFD039BUE-102A | Wenrun | LFD039BUE-102A | TME | LFD039BUE-102A | LFD039BUE-102A |
| LED, white, diffused | 11 | LED2 LED3 LED4 LED5 LED6 LED7 | 6 | T-1 | THT | / | Lite-On | LTW-42NDH8J | TME | LTW-42NDH8J | LTW-42NDH8J |
| Resistor, thick film, 50 m Ω , 1 % | 12 | R3 R7 R13 | 3 | RES_0805 | SMT | R050 | Generic | CRL0805-FW-R050ELF | Mouser | 652-CRL0805FWR050ELF | CRL |
| Resistor, thick film, 680 Ω , 1 $\%$ | 13 | R21 R22 R23 R24 R25 R26 R27 R28 | 8 | RES_0805 | SMT | 6800 | Generic | RC0805FR-07680RL | Mouser | 603-RC0805FR-07680RL | <u>RC</u> |
| Resistor, thick film, 2.2 k Ω , 1 % | 14 | R2 R6 R10 R11 R16 R17 R18 | 7 | RES_0805 | SMT | 2201 | Generic | RC0805FR-072K2L | Mouser | 603-RC0805FR-072K2L | <u>RC</u> |
| Resistor, thick film, 6.8 kΩ, 1 % | 15 | R1 R4 R5 R8 R9 R12 R14 R15 R19 R20 | 10 | RES_0805 | SMT | 6801 | Generic | RC0805FR-076K8L | Mouser | 603-RC0805FR-076K8L | <u>RC</u> |
| Inductor, 10 μH | 16 | L4 | 1 | IND_0805 | SMT | / | Generic | LBR2012T100K | Mouser | 963-LBR2012T100K | <u>LB</u> |
| Ferrite chip bead, 600 Ω, 1.5 A | 17 | L1 L2 L3 | 3 | IND_0805 | SMT | / | Generic | MI0805K601R-10 | Mouser | 875-MI0805K601R-10 | MI0805K601R-10 |
| Capacitor, X7R ceramic, 100 nF, 25 V | 18 | C1 C3 C4 C5 C6 C7 C8 C10 | 8 | CAP_0805 | SMT | / | Generic | 08055C104KAT2A | Mouser | <u>581-08055C104K</u> | <u>X7R</u> |
| Capacitor, electrolytic, 10 μF, 25 V, 105 °C, long life | 19 | C9 C12 C13 | 3 | CAPAE- 4.3x4.3h5.4 | SMT | 10 E HB. | Panasonic | EEE-HBE100UAR | Mouser | 667-EEE-HBE100UAR | <u>HB</u> |
| Tactile switch, 2.8 mm square stem | 20 | S1 S2 | 2 | Tactile 6 mm (2.8 mm square) | тнт | / | TE | 1825967-2 | Farnell | <u>2468762</u> | <u>1825967</u> |
| Shrouded header, 2x8 pins, pin spacing 2.54 mm, vertical PCB mount, flash gold finish | 21 | J1 J2 | 2 | IDC16M | ТНТ | 16P | Connfly | DS1013-16SSiB1-B-0 | TME | <u>ZL231-16PG</u> | <u>DS1013</u> |