





| Designator  | Package   | Value                                     | Quantity |
|---|---|---|----------|
| BT1   | CR2032V   | 1775485-1 or S8401-46                     | 1        |
| C1  | C_0805_2012Metric_Pad1.18x1.45mm_HandSolder   | 2.2u                                      | 1        |
| C2, C9  | C_0603_1608Metric_Pad1.08x0.95mm_HandSolder   | 1n  | 2        |
| C3, C4, C5, C22, C23, C24, C30, C31, C32, C36,                          |   |   |          |
| C37, C38, C43, C44, C45, C46, C47, C48, C49, C53,                       |   |   |          |
| C54, C55, C56, C57, C58, C59, C60, C61, C62, C64,                       |   |   |          |
| C65, C66, C67, C71, C72, C73, C77, C78, C79                             | C_0603_1608Metric_Pad1.08x0.95mm_HandSolder   | 100n                                      | 39       |
| C6, C15, C16, C81   | C_0603_1608Metric_Pad1.08x0.95mm_HandSolder   | 10p                                       | 4        |
| C7, C8  | C_0603_1608Metric_Pad1.08x0.95mm_HandSolder   | 15p                                       | 2        |
| C10   | C_0603_1608Metric_Pad1.08x0.95mm_HandSolder   | 10n                                       | 1        |
| C11, C12, C40   | CP_Elec_5x5.9 C 0603 1608Metric Pad1.08x0.95mm HandSolder                               | 100u                                      | 3        |
| C13, C14, C82, C83<br>C17, C18, C19, C25, C26, C29, C33, C34, C74, C75, | C_0603_1608Metric_Pad1.08x0.95mm_HandSolder   | 2.2n                                      | 4        |
| C76, C84, C85, C86  | C 0805 2012Metric Pad1.18x1.45mm HandSolder   | 10u                                       | 14       |
| C20, C21  | C 0603 1608Metric Pad1.08x0.95mm HandSolder   | 100p                                      | 2        |
| C27, C28  | C_0603_1608Metric_Pad1.08x0.95mm_HandSolder   | 22p                                       | 2        |
| C35, C42, C50, C51, C52, C63, C70                                       | C_0603_1608Metric_Pad1.08x0.95mm_HandSolder   | 1u  | 7        |
| C39   | CP_Elec_6.3x7.7   | 100u/16V                                  | 1        |
| 044 000 000   | CP_EIA-3216-18_Kemet-   |   |          |
| C41, C68, C69<br>C80  | A_Pad1.58x1.35mm_HandSolder  CP_Elec 6.3x7.7  | 22u<br>220u                               | 1        |
| D1  | LED_D3.0mm_Horizontal_O1.27mm_Z6.0mm  | LED Red                                   | 1        |
| D2  | LED D3.0mm Horizontal O1.27mm Z6.0mm  | LED_Red                                   | 1        |
| D3  | LED D3.0mm Horizontal O1.27mm Z6.0mm  | LED Green                                 | 1        |
| D4  | D_SOD-123   | 1N4148W                                   | 1        |
|   | _   |   |          |
| F1  | Fuse_1812_4532Metric_Pad1.30x3.40mm_HandSolder  | 1.1A                                      | 1        |
|   |   |   | ]        |
| F2  | Fuse_1812_4532Metric_Pad1.30x3.40mm_HandSolder  |   | 1        |
| H1, H2, H3, H4<br>J1, J3, J13, J14                                      | MountingHole_3.2mm_M3_dk5.2mm PinHeader 2x05 P2.54mm Vertical                           | Screw M3 dk=5mm L=4mm Conn 02x05 Odd Even | 4        |
| J2  | USB Micro-B Molex-105017-0001   | USB B Micro                               | 1        |
| J4  | PJ-320A D   | PJ-320                                    | 1        |
| J5, J6, J7, J8  | USB_A_Wuerth_614004134726_Horizontal  | USB A                                     | 4        |
|   | DSUB-15-  | _   |          |
|   | HD_Female_Horizontal_P2.29x1.98mm_EdgePinOffset   | DB15_Female_HighDensity_M                 |          |
| J9  | 3.03mm_Housed_MountingHolesOffset4.94mm   | ountingHoles                              | 1        |
| J10   | SD_TE_2041021-mod   | TE 041021-4                               | 1        |
| J11<br>J12, J15   | PinHeader_1x03_P2.54mm_Vertical PinHeader 1x04 P2.54mm Vertical                         | PJ392                                     | 2        |
| J16   | GCT-MEM2055-00-190-01-A   | Conn_01x04<br>MEM2055-00-190-01-A         | 1        |
| J18   | PinSocket 2x04 P2.54mm Vertical   | ESP-01                                    | 1        |
| JP1   | PinHeader 1x02 P2.54mm Vertical   | Jumper 2 Open                             | 1        |
| L1, L2, L3, L4  | L_0805_2012Metric_Pad1.15x1.40mm_HandSolder   | 1u  | 4        |
| N1  |   | G738 or G706                              | 1        |
| Q1, Q3, Q4  | SOT-23  | BC817                                     | 3        |
| Q2  | SOT-23  | IRLML6402                                 | 1        |
| R1, R8, R24, R49  | R_0603_1608Metric_Pad0.98x0.95mm_HandSolder   | 1.5k                                      | 4        |
| R2, R3, R4, R9, R44, R48, R52, R55, R59, R66, R67,                      | R_0603_1608Metric_Pad0.98x0.95mm_HandSolder   | 10k                                       | 15       |
| R73, R74, R75, R100<br>R5, R6, R12, R13, R14, R27, R29, R30, R54, R56,  | N_0003_1006WetHC_Pad0.96x0.95HHII_Halid50idel   | TOK                                       | 10       |
| R57   | R 0603 1608Metric Pad0.98x0.95mm HandSolder   | 22  | 11       |
| R7  | R 0603 1608Metric Pad0.98x0.95mm HandSolder   | 120                                       | 1        |
| R10, R11, R99, R104   | R_0603_1608Metric_Pad0.98x0.95mm_HandSolder   | 560                                       | 4        |
| R15, R22, R33, R76, R83, R91  | R_0603_1608Metric_Pad0.98x0.95mm_HandSolder   | 1k  | 6        |
| R16, R17, R23, R25, R34, R35, R77, R78, R84, R85,                       |   |   |          |
| R92, R93  | R_0603_1608Metric_Pad0.98x0.95mm_HandSolder   | 1.1k                                      | 12       |
| R18, R26, R37, R79, R86, R94  | R_0603_1608Metric_Pad0.98x0.95mm_HandSolder   | 2.2k                                      | 6        |
| R19, R28, R39, R80, R87, R95<br>R20, R31, R40, R81, R88, R96            | R_0603_1608Metric_Pad0.98x0.95mm_HandSolder R_0603_1608Metric_Pad0.98x0.95mm_HandSolder | 4.3k<br>9.1k                              | 6        |
| R20, R31, R40, R81, R88, R96<br>R21, R32, R41, R82, R90, R97            | R 0603 1608Metric Pad0.98x0.95mm_HandSolder   | 18k                                       | 6        |
| R36   | R 0603 1608Metric Pad0.98x0.95mm HandSolder   | 2.7k 1%                                   | 1        |
| R38   | R_0603_1608Metric_Pad0.98x0.95mm_HandSolder   | 0   | 1        |
| R42, R43  | R_0603_1608Metric_Pad0.98x0.95mm_HandSolder   | 100                                       | 2        |
| R45, R46, R47   | R_0603_1608Metric_Pad0.98x0.95mm_HandSolder   | 220                                       | 3        |
| R50, R51, R53, R60, R61, R62, R63, R64, R68, R69,                       |   |   |          |
| R70, R71, R72   | R_0603_1608Metric_Pad0.98x0.95mm_HandSolder   | 4.7k                                      | 13       |
| R58   | R_0603_1608Metric_Pad0.98x0.95mm_HandSolder   | 470k                                      | 1        |
| R65<br>R89, R101, R102, R103  | R_0603_1608Metric_Pad0.98x0.95mm_HandSolder R_0603_1608Metric_Pad0.98x0.95mm_HandSolder | 470<br>75                                 | 4        |
| R98   | R 0603 1608Metric Pad0.98x0.95mm_HandSolder   | 4.7M                                      | 1        |
|   | 5555_1000Motilo_1 add.00x0.00Mini_FidindOlidel  |   |          |
| SW1   | Molex_KK-254_AE-6410-02A_1x02_P2.54mm_Vertical  | PB05A                                     | 1        |
|   | SW_DIP_SPSTx02_Slide_9.78x7.26mm_W7.62mm_P  |   |          |
| SW2   | 2.54mm  | SW_DIP_x02                                | 1        |
| SW3, SW4, SW5   | SW_Tactile_SPST_Angled_PTS645Vx58-2LFS  | SW_Push                                   | 3        |
| U1  | TSOP-II-54_22.2x10.16mm_P0.8mm  | MT48LC16M16A2                             | 1        |
| U2  | TQFP-64_10x10mm_P0.5mm  | AT91SAM7S256-AU                           | 1        |

| Designator | Package                                | Value         | Quantity |
|------------|--|---------------|----------|
| U3         | ALTERA-QFP-145                         | EP3C25E144    | 1        |
| U4         | LQFP-32_5x5mm_P0.5mm                   | MAX3421E      | 1        |
| U5         | LQFP-48_7x7mm_P0.5mm                   | FE2.1-LQFP48  | 1        |
| U6         | DIP-8_W7.62mm                          | ATtiny45-20PU | 1        |
| U7         | SOIC-8_3.9x4.9mm_P1.27mm               | DS1307Z+      | 1        |
| U8         | TO-252-2                               | NCP1117-3.3   | 1        |
| U9         | SOT-223-3_TabPin2                      | LD1117AS12TR  | 1        |
| U10        | SOT-223-3_TabPin2                      | LD1117AS25TR  | 1        |
| U11        | SOIC-16W_7.5x10.3mm_P1.27mm            | AD724         | 1        |
|            | Oscillator_SMD_SeikoEpson_SG8002CA-    |               |          |
| X1         | 4Pin_7.0x5.0mm                         | 27 MHz        | 1        |
|            | Oscillator_SMD_SeikoEpson_SG8002CA-    |               |          |
| X2         | 4Pin_7.0x5.0mm                         | 12 MHz        | 1        |
| Y1         | Crystal_HC49-U_Vertical                | 18.432 MHz    | 1        |
|            | Crystal_C38-                           |               |          |
| Y2         | LF_D3.0mm_L8.0mm_Horizontal_1EP_style2 | 32768 Hz      | 1        |
| Y3         | Crystal_SMD_HC49-SD                    | 4.433619 MHz  | 1        |

