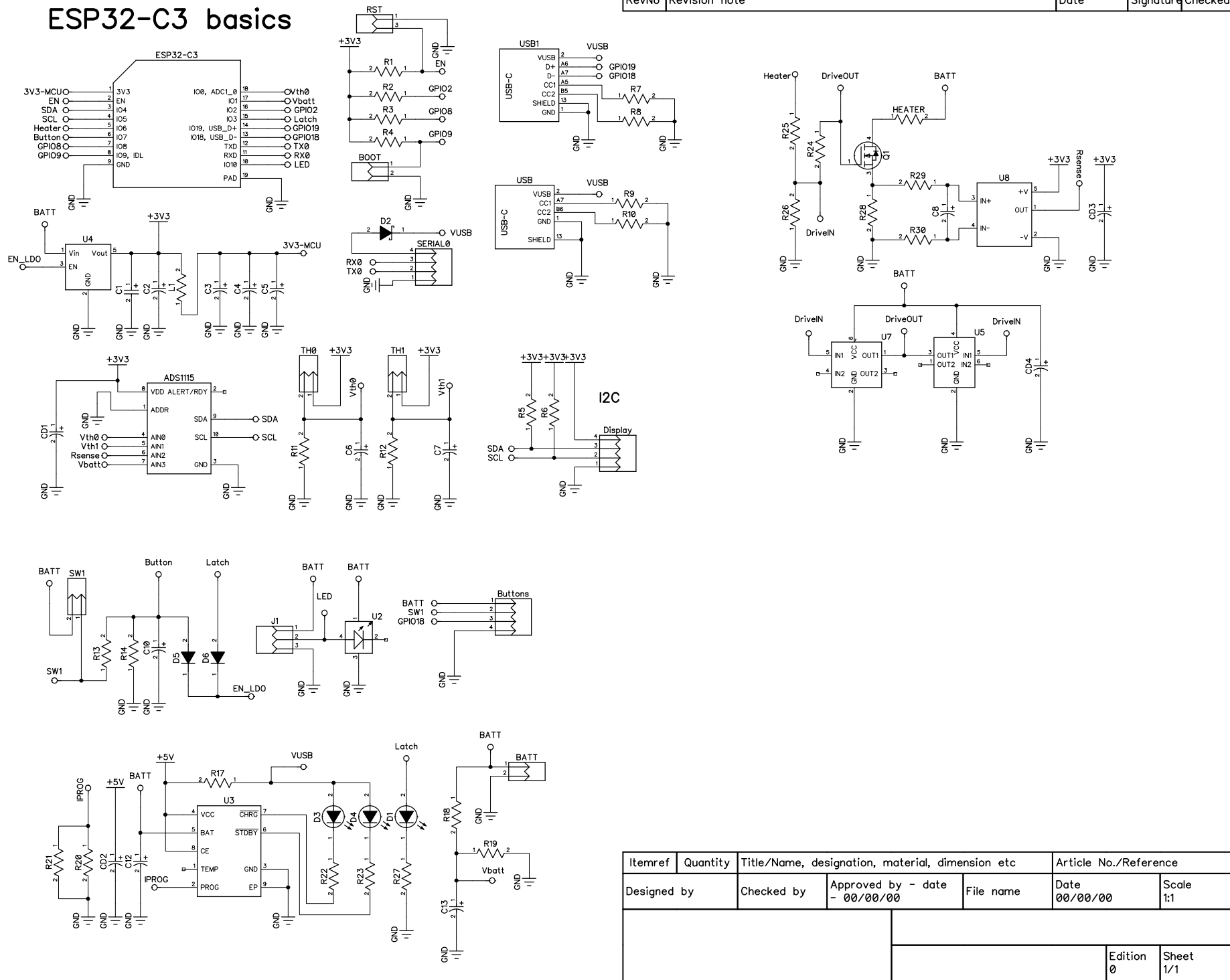


ESP32-C3 basics



| Itemref | Quantity | Title/Name, designation, material, dimension etc | | | Article No./Reference | |
|-------------|----------|--|--------------------|-----------|-----------------------|-------|
| Designed by | | Checked by | Approved by - date | File name | Date | Scale |
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| | | | | | Edition | Sheet |
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| | | | | | RevNo | Revision note | | | | | Date | Signature | Checked | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| A | | | | | | | | | | | | | | A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| B | <table><thead><tr><th>#</th><th>Component</th><th>#</th><th>Comment</th><th>Footprint</th><th>LCSC PN</th></tr></thead><tbody><tr><td>1</td><td>ADS1115</td><td>1</td><td>ADS1115</td><td>SOP10P50_300X490X110L55X22N_AD3</td><td>C37593</td></tr><tr><td>2</td><td>BATT</td><td>1</td><td></td><td>21700x2</td><td></td></tr><tr><td>3</td><td>BOOT, RST</td><td>2</td><td></td><td>RHDRV2W80P254_2X1_558X250H875_AP1</td><td></td></tr><tr><td>4</td><td>Buttons, Display</td><td>2</td><td></td><td>SM04B-GHS-TB(LF)(SN)</td><td>C7433470</td></tr><tr><td>5</td><td>C1</td><td>1</td><td>22u</td><td>CAPP_1206_L</td><td>C122912</td></tr><tr><td>6</td><td>C2, C3, C6, C7, C8, C10, CD1, CD2, CD3, CD4</td><td>10</td><td>100n</td><td>CAPP_0805_M</td><td>C2909631</td></tr><tr><td>7</td><td>C4, C5, C12, C13</td><td>4</td><td>10u</td><td>CAPP_0805_M</td><td>C77075</td></tr><tr><td>8</td><td>D1</td><td>1</td><td></td><td>LED_0805(2012 Metric)_M_Red</td><td></td></tr><tr><td>9</td><td>D2</td><td>1</td><td>1N5819</td><td>SOD360X160X130L30X62N</td><td>C82544</td></tr></tbody></table> | | | | | | | | | | | | | | # | Component | # | Comment | Footprint | LCSC PN | 1 | ADS1115 | 1 | ADS1115 | SOP10P50_300X490X110L55X22N_AD3 | C37593 | 2 | BATT | 1 | | 21700x2 | | 3 | BOOT, RST | 2 | | RHDRV2W80P254_2X1_558X250H875_AP1 | | 4 | Buttons, Display | 2 | | SM04B-GHS-TB(LF)(SN) | C7433470 | 5 | C1 | 1 | 22u | CAPP_1206_L | C122912 | 6 | C2, C3, C6, C7, C8, C10, CD1, CD2, CD3, CD4 | 10 | 100n | CAPP_0805_M | C2909631 | 7 | C4, C5, C12, C13 | 4 | 10u | CAPP_0805_M | C77075 | 8 | D1 | 1 | | LED_0805(2012 Metric)_M_Red | | 9 | D2 | 1 | 1N5819 | SOD360X160X130L30X62N | C82544 | B |
| | # | Component | # | Comment | Footprint | LCSC PN | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 1 | ADS1115 | 1 | ADS1115 | SOP10P50_300X490X110L55X22N_AD3 | C37593 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 2 | BATT | 1 | | 21700x2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 3 | BOOT, RST | 2 | | RHDRV2W80P254_2X1_558X250H875_AP1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 4 | Buttons, Display | 2 | | SM04B-GHS-TB(LF)(SN) | C7433470 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 5 | C1 | 1 | 22u | CAPP_1206_L | C122912 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 6 | C2, C3, C6, C7, C8, C10, CD1, CD2, CD3, CD4 | 10 | 100n | CAPP_0805_M | C2909631 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 7 | C4, C5, C12, C13 | 4 | 10u | CAPP_0805_M | C77075 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 8 | D1 | 1 | | LED_0805(2012 Metric)_M_Red | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 9 | D2 | 1 | 1N5819 | SOD360X160X130L30X62N | C82544 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| C | <table><tbody><tr><td>10</td><td>D3</td><td>1</td><td></td><td>LED_0805(2012 Metric)_M_Red</td><td></td></tr><tr><td>11</td><td>D4</td><td>1</td><td></td><td>LED_0805(2012 Metric)_M_Red</td><td></td></tr><tr><td>12</td><td>D5, D6</td><td>2</td><td></td><td>SOD370X160X125L20X55N</td><td>C917030</td></tr><tr><td>13</td><td>ESP32-C3</td><td>1</td><td></td><td>ESP32--C3-WROOM-02</td><td></td></tr><tr><td>14</td><td>HEATER</td><td>1</td><td></td><td>RES_2512_L</td><td></td></tr><tr><td>15</td><td>J1</td><td>1</td><td></td><td>RHDRV3W80P254_3X1_812X250H875_AP1</td><td></td></tr><tr><td>16</td><td>L1</td><td>1</td><td>22n</td><td>RES_0805_M</td><td>C108962</td></tr><tr><td>17</td><td>Q1</td><td>1</td><td></td><td>DPAK3P228_990X239L159X76T521X546N_AP1</td><td>C605020</td></tr><tr><td>18</td><td>R1, R2, R3, R4, R14, R18, R26</td><td>7</td><td>10k</td><td>RES_0805_M</td><td>C17414</td></tr><tr><td>19</td><td>R5, R6, R11, R20, R21</td><td>5</td><td>2k2</td><td>RES_0805_M</td><td>C17520</td></tr></tbody></table> | | | | | | | | | | | | | | 10 | D3 | 1 | | LED_0805(2012 Metric)_M_Red | | 11 | D4 | 1 | | LED_0805(2012 Metric)_M_Red | | 12 | D5, D6 | 2 | | SOD370X160X125L20X55N | C917030 | 13 | ESP32-C3 | 1 | | ESP32--C3-WROOM-02 | | 14 | HEATER | 1 | | RES_2512_L | | 15 | J1 | 1 | | RHDRV3W80P254_3X1_812X250H875_AP1 | | 16 | L1 | 1 | 22n | RES_0805_M | C108962 | 17 | Q1 | 1 | | DPAK3P228_990X239L159X76T521X546N_AP1 | C605020 | 18 | R1, R2, R3, R4, R14, R18, R26 | 7 | 10k | RES_0805_M | C17414 | 19 | R5, R6, R11, R20, R21 | 5 | 2k2 | RES_0805_M | C17520 | C |
| | 10 | D3 | 1 | | LED_0805(2012 Metric)_M_Red | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 11 | D4 | 1 | | LED_0805(2012 Metric)_M_Red | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 12 | D5, D6 | 2 | | SOD370X160X125L20X55N | C917030 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 13 | ESP32-C3 | 1 | | ESP32--C3-WROOM-02 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 14 | HEATER | 1 | | RES_2512_L | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 15 | J1 | 1 | | RHDRV3W80P254_3X1_812X250H875_AP1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 16 | L1 | 1 | 22n | RES_0805_M | C108962 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 17 | Q1 | 1 | | DPAK3P228_990X239L159X76T521X546N_AP1 | C605020 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 18 | R1, R2, R3, R4, R14, R18, R26 | 7 | 10k | RES_0805_M | C17414 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 19 | R5, R6, R11, R20, R21 | 5 | 2k2 | RES_0805_M | C17520 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| D | <table><tbody><tr><td>20</td><td>R7, R8, R9, R10</td><td>4</td><td>5k1</td><td>RES_0805_M</td><td>C17414</td></tr><tr><td>21</td><td>R12, R19</td><td>2</td><td>33k</td><td>RES_0805_M</td><td>C17520</td></tr><tr><td>22</td><td>R13, R22, R23, R25, R27</td><td>5</td><td>1k</td><td>RES_0805_M</td><td>C17414</td></tr><tr><td>23</td><td>R17</td><td>1</td><td>220m</td><td>RES_1210_M</td><td>C17414</td></tr><tr><td>24</td><td>R24</td><td>1</td><td>0</td><td>RES_0805_M</td><td></td></tr><tr><td>25</td><td>R28</td><td>1</td><td>20m</td><td>RES_1210_M</td><td>C17414</td></tr><tr><td>26</td><td>R29, R30</td><td>2</td><td>10</td><td>RES_0805_M</td><td></td></tr><tr><td>27</td><td>SERIAL0</td><td>1</td><td>JST 1.25 M V</td><td>BM04B-SRSS-TB(LF)(SN)</td><td>C7433470</td></tr><tr><td>28</td><td>SW1, TH0, TH1</td><td>3</td><td></td><td>BM02B-GHS-TBT(LF)(SN)</td><td>C161690</td></tr><tr><td>29</td><td>U2</td><td>1</td><td></td><td>LED_PLCC4_5050 Metric_M</td><td></td></tr></tbody></table> | | | | | | | | | | | | | | 20 | R7, R8, R9, R10 | 4 | 5k1 | RES_0805_M | C17414 | 21 | R12, R19 | 2 | 33k | RES_0805_M | C17520 | 22 | R13, R22, R23, R25, R27 | 5 | 1k | RES_0805_M | C17414 | 23 | R17 | 1 | 220m | RES_1210_M | C17414 | 24 | R24 | 1 | 0 | RES_0805_M | | 25 | R28 | 1 | 20m | RES_1210_M | C17414 | 26 | R29, R30 | 2 | 10 | RES_0805_M | | 27 | SERIAL0 | 1 | JST 1.25 M V | BM04B-SRSS-TB(LF)(SN) | C7433470 | 28 | SW1, TH0, TH1 | 3 | | BM02B-GHS-TBT(LF)(SN) | C161690 | 29 | U2 | 1 | | LED_PLCC4_5050 Metric_M | | D |
| | 20 | R7, R8, R9, R10 | 4 | 5k1 | RES_0805_M | C17414 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 21 | R12, R19 | 2 | 33k | RES_0805_M | C17520 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 22 | R13, R22, R23, R25, R27 | 5 | 1k | RES_0805_M | C17414 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 23 | R17 | 1 | 220m | RES_1210_M | C17414 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 24 | R24 | 1 | 0 | RES_0805_M | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 25 | R28 | 1 | 20m | RES_1210_M | C17414 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 26 | R29, R30 | 2 | 10 | RES_0805_M | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 27 | SERIAL0 | 1 | JST 1.25 M V | BM04B-SRSS-TB(LF)(SN) | C7433470 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 28 | SW1, TH0, TH1 | 3 | | BM02B-GHS-TBT(LF)(SN) | C161690 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 29 | U2 | 1 | | LED_PLCC4_5050 Metric_M | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| E | <table><tbody><tr><td>30</td><td>U3</td><td>1</td><td></td><td>SOIC9P127_490X600X175L83X42T330X241N</td><td>C16581</td></tr><tr><td>31</td><td>U4</td><td>1</td><td></td><td>SOT23-5P95_270X145L35X35M</td><td></td></tr><tr><td>32</td><td>U5</td><td>1</td><td>GC9111</td><td>SOT23-6</td><td></td></tr><tr><td>33</td><td>U7</td><td>1</td><td></td><td>SOT23-6P95_270X145L35X35M</td><td></td></tr><tr><td>34</td><td>U8</td><td>1</td><td></td><td>SOT23-5P95_270X145L35X35M</td><td>C2872992</td></tr><tr><td>35</td><td>USB</td><td>1</td><td></td><td>USB-C-6</td><td></td></tr><tr><td>36</td><td>USB1</td><td>1</td><td></td><td>USB-C-12</td><td></td></tr></tbody></table> | | | | | | | | | | | | | | 30 | U3 | 1 | | SOIC9P127_490X600X175L83X42T330X241N | C16581 | 31 | U4 | 1 | | SOT23-5P95_270X145L35X35M | | 32 | U5 | 1 | GC9111 | SOT23-6 | | 33 | U7 | 1 | | SOT23-6P95_270X145L35X35M | | 34 | U8 | 1 | | SOT23-5P95_270X145L35X35M | C2872992 | 35 | USB | 1 | | USB-C-6 | | 36 | USB1 | 1 | | USB-C-12 | | E | | | | | | | | | | | | | | | | | | |
| | 30 | U3 | 1 | | SOIC9P127_490X600X175L83X42T330X241N | C16581 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 31 | U4 | 1 | | SOT23-5P95_270X145L35X35M | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 32 | U5 | 1 | GC9111 | SOT23-6 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 33 | U7 | 1 | | SOT23-6P95_270X145L35X35M | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 34 | U8 | 1 | | SOT23-5P95_270X145L35X35M | C2872992 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 35 | USB | 1 | | USB-C-6 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 36 | USB1 | 1 | | USB-C-12 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| F | | | | | | | | | | | | | | F | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | Itemref | Quantity | Title/Name, designation, material, dimension etc | | | | Article No./Reference | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | Designed by | | Checked by | Approved by - date - 00/00/00 | | File name | Date 00/00/00 | | Scale 1:1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| | | | | | | | | | | Edition 0 | | Sheet 1/1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | | 2 | | 3 | | 4 | | 5 | | 6 | | 7 | | 8 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |