

- 1 Material: UL recognized component ZPMV2, minimum 94V-1, relative permittivity 4.2
- 2 Finish: ENIG (Electroless Nickel Immersion Gold), nickel layer  $1 \div 4 \mu\text{m}$ , gold layer  $0.076 \div 0.2 \mu\text{m}$
- 3 All gerber files generated as a top view
4. Fabricate according IPC-A-600
5. Non-conductive epoxy ink recommended for silkscreen
6. Silkscreen should not cover any exposed copper, silkscreen gerber data have to be trimmed eventually
7. All holes diameter refer to final diameter after eventual plating

**Gerber and drill file extensions table**

| Gerber files |                               |
|--------------|-------------------------------|
| .GTO         | Top side silkscreen           |
| .GTP         | Top side solder paste mask    |
| .GTS         | Top side solder mask          |
| .GTL         | Top layer                     |
| .GBL         | Bottom layer                  |
| .GBS         | Bottom side solder mask       |
| .GBP         | Bottom side solder paste mask |
| .GBO         | Bottom side silkscreen        |
| Drill files  |                               |
| .TXT         | round holes                   |
| .TXT         | slot holes                    |

|   |                    |  |                    |
|---|--------------------|--|--------------------|
| BLE-SWITCH001-GEVB                          |                    | Revision:<br>Rev 4   | State:<br>released |
| PCB fabrication notes and requirements      |                    | Fabrication document   | Sheet<br>1 / 13    |
| Engineer: T. Duris                          | Date: 6. July 2020 |  |                    |
| PCB File: BLE-SWITCH001-GEVB.PcbDoc         |                    | <b>ON Semiconductor</b><br>Solution Engineering Center<br>Piešťany |                    |
| Repository revision: Not in version control |                    |  |                    |

Layer Stack

| Material                             | Layer          | Thickness           | Dielectric Material | Type        | Gerber |
|--------------------------------------|----------------|---------------------|---------------------|-------------|--------|
|                                      | Top Paste      |                     |                     | Paste Mask  | GTP    |
|                                      | Top Overlay    |                     |                     | Legend      | GTO    |
| Surface Material                     | Top Solder     | 0.0102mm(0.400mil)  | Solder Resist       | Solder Mask | GTS    |
| Copper                               | Top Layer      | 0.0550mm(2.165mil)  |                     | Signal      | GTL    |
| Core                                 |                | 0.8000mm(31.496mil) | Isola DE104i        | Dielectric  |        |
| Copper                               | Bottom Layer   | 0.0550mm(2.165mil)  |                     | Signal      | GBL    |
| Surface Material                     | Bottom Solder  | 0.0102mm(0.400mil)  | Solder Resist       | Solder Mask | GBS    |
|                                      | Bottom Overlay |                     |                     | Legend      | GBO    |
|                                      | Bottom Paste   |                     |                     | Paste Mask  | GBP    |
| Total thickness: 0.9303mm(36.627mil) |                |                     |                     |             |        |

## BLE-SWITCH001-GEVB

Revision:  
Rev 4

State:  
released

### Layer stack details

Engineer: T. Duris

Date: 6. July 2020

Fabrication  
document

Sheet  
2 / 13

PCB File: BLE-SWITCH001-GEVB.PcbDoc

Repository revision: Not in version control

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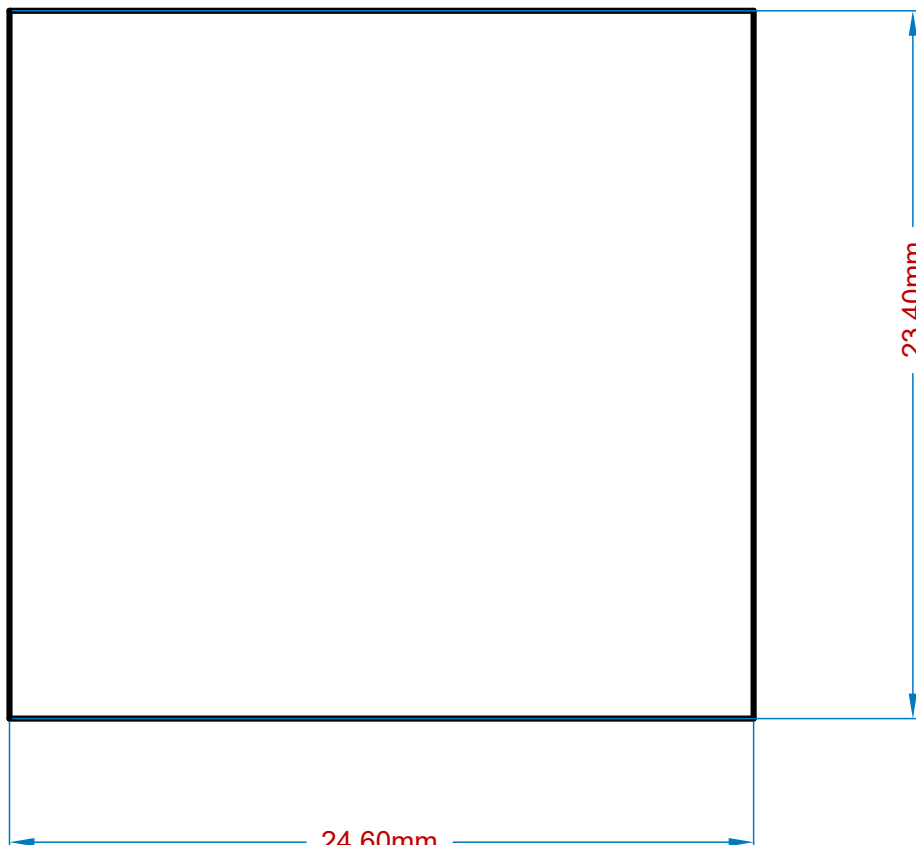
B


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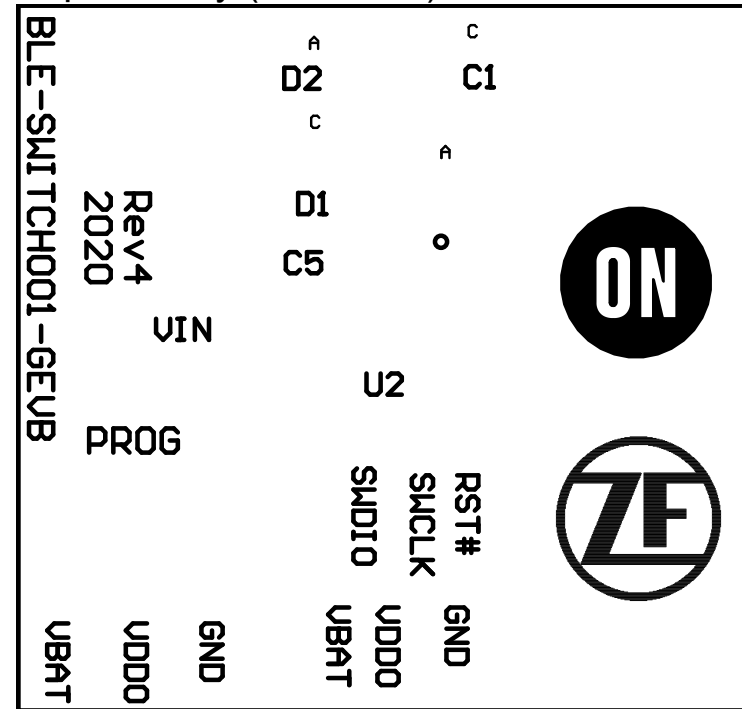
D



|  |                    |  |   |
|--|--------------------|--|---|
| <b>BLE-SWITCH001-GEVB</b>                      |                    | <b>Revision:<br/>Rev 4</b>   | <b>State:<br/>released</b>  |
| <i>Board outline definition - top view 4:1</i> |                    | Fabrication<br>document  | Sheet<br>3 / 13   |
| Engineer: T. Duris                             | Date: 6. July 2020 |  |   |
| PCB File: BLE-SWITCH001-GEVB.PcbDoc            |                    | <b>ON Semiconductor</b><br>Solution Engineering Center<br>Piestany |  |
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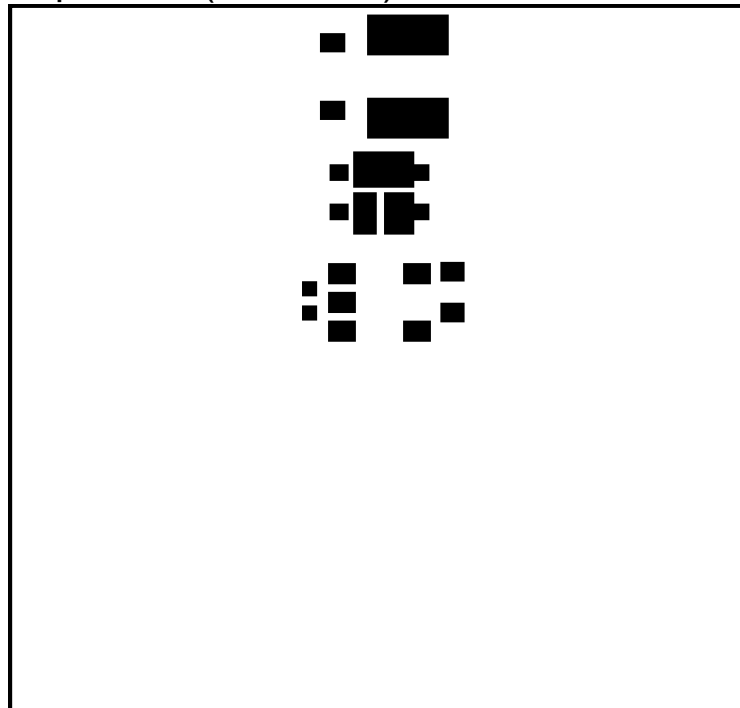
# Top Overlay (Scale 4:1)




|   |                    |  |                    |
|---|--------------------|--|--------------------|
| BLE-SWITCH001-GEVB                          |                    | Revision:<br>Rev 4   | State:<br>released |
| Top side silkscreen                         |                    | Fabrication<br>document  | Sheet<br>4 / 13    |
| Engineer: T. Duris                          | Date: 6. July 2020 |  |                    |
| PCB File: BLE-SWITCH001-GEVB.PcbDoc         |                    | <b>ON Semiconductor</b><br>Solution Engineering Center<br>Piestany |                    |
| Repository revision: Not in version control |                    |  |                    |



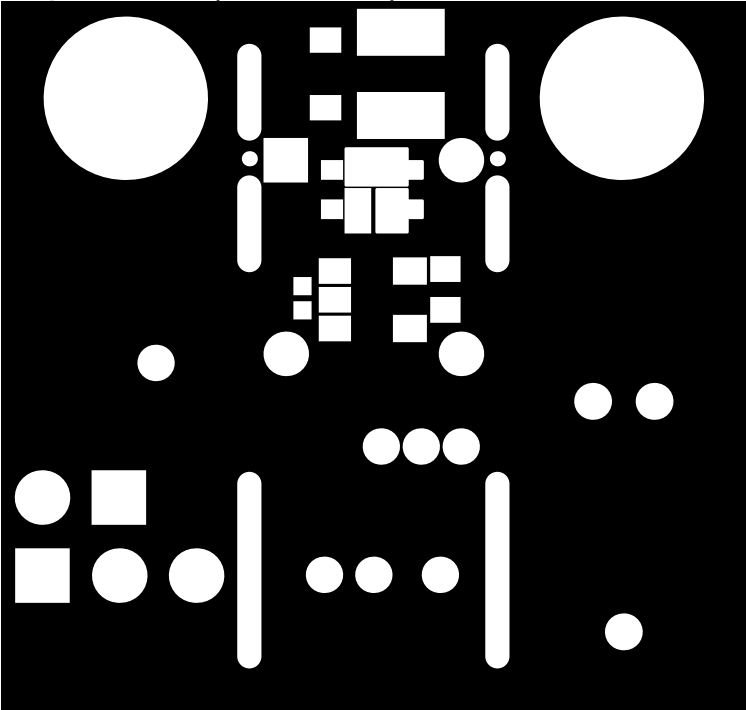
Top Paste (Scale 4:1)




|   |                    |   |   |
|---|--------------------|---|---|
| BLE-SWITCH001-GEVB                          |                    | Revision:<br>Rev 4  | State:<br>released  |
| Top side solder paste                       |                    | Fabrication<br>document                                     | Sheet<br>5 / 13   |
| Engineer: T. Duris                          | Date: 6. July 2020 |   |   |
| PCB File: BLE-SWITCH001-GEVB.PcbDoc         |                    | ON Semiconductor<br>Solution Engineering Center<br>Piestany |  |
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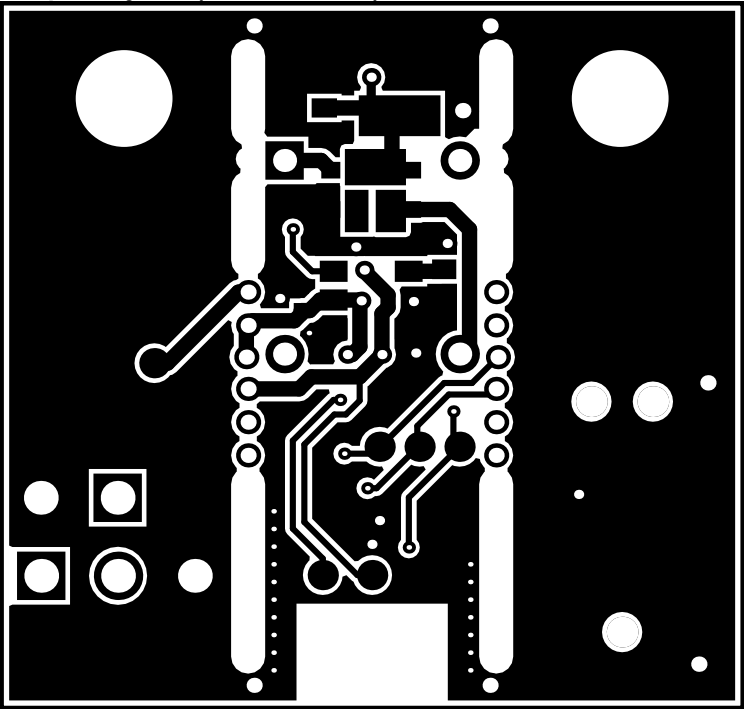
Top Solder (Scale 4:1)




|   |                    |  |   |
|---|--------------------|--|---|
| <b>BLE-SWITCH001-GEVB</b>                   |                    | <b>Revision:<br/>Rev 4</b>   | <b>State:<br/>released</b>  |
| <i>Top side solder mask</i>                 |                    | Fabrication<br>document  | Sheet<br>6 / 13   |
| Engineer: T. Duris                          | Date: 6. July 2020 |  |   |
| PCB File: BLE-SWITCH001-GEVB.PcbDoc         |                    | <b>ON Semiconductor</b><br>Solution Engineering Center<br>Piestany |  |
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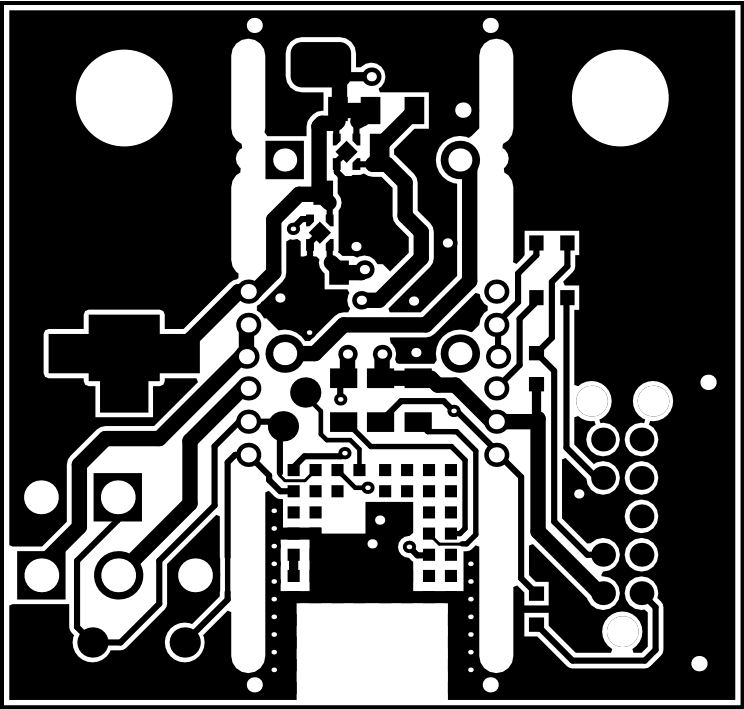
Top Layer (Scale 4:1)




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|---|--------------------|--|---|
| <b>BLE-SWITCH001-GEVB</b>                   |                    | <b>Revision:<br/>Rev 4</b>   | <b>State:<br/>released</b>  |
| <i>Top layer</i>                            |                    | Fabrication<br>document  | Sheet<br>7 / 13   |
| Engineer: T. Duris                          | Date: 6. July 2020 |  |   |
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Bottom Layer (Scale 4:1)

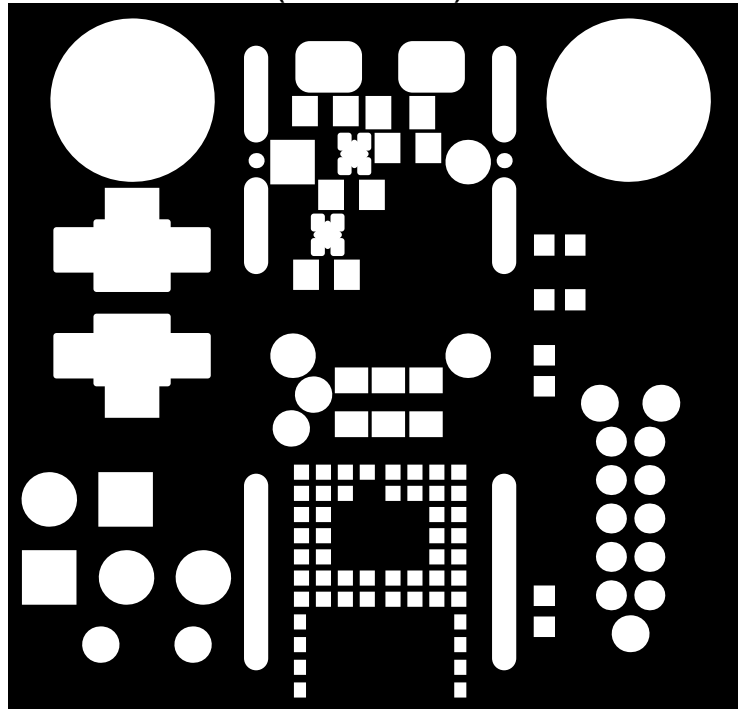


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|---|--------------------|--|---|
| <b>BLE-SWITCH001-GEVB</b>                   |                    | <b>Revision:<br/>Rev 4</b>   | <b>State:<br/>released</b>  |
| <i>Bottom layer</i>                         |                    | Fabrication<br>document  | Sheet<br>8 / 13   |
| Engineer: T. Duris                          | Date: 6. July 2020 |  |   |
| PCB File: BLE-SWITCH001-GEVB.PcbDoc         |                    | <b>ON Semiconductor</b><br>Solution Engineering Center<br>Piestany |  |
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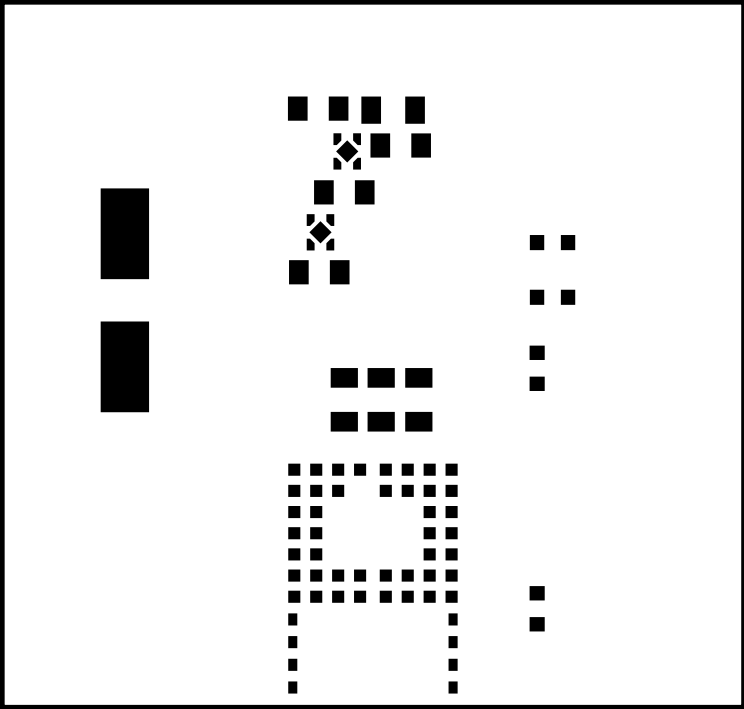
Bottom Solder (Scale 4:1)




|   |                    |  |                    |
|---|--------------------|--|--------------------|
| BLE-SWITCH001-GEVB                          |                    | Revision:<br>Rev 4   | State:<br>released |
| Bottom side solder mask                     |                    | Fabrication<br>document  | Sheet<br>9 / 13    |
| Engineer: T. Duris                          | Date: 6. July 2020 |  |                    |
| PCB File: BLE-SWITCH001-GEVB.PcbDoc         |                    | <b>ON Semiconductor</b><br>Solution Engineering Center<br>Piestany |                    |
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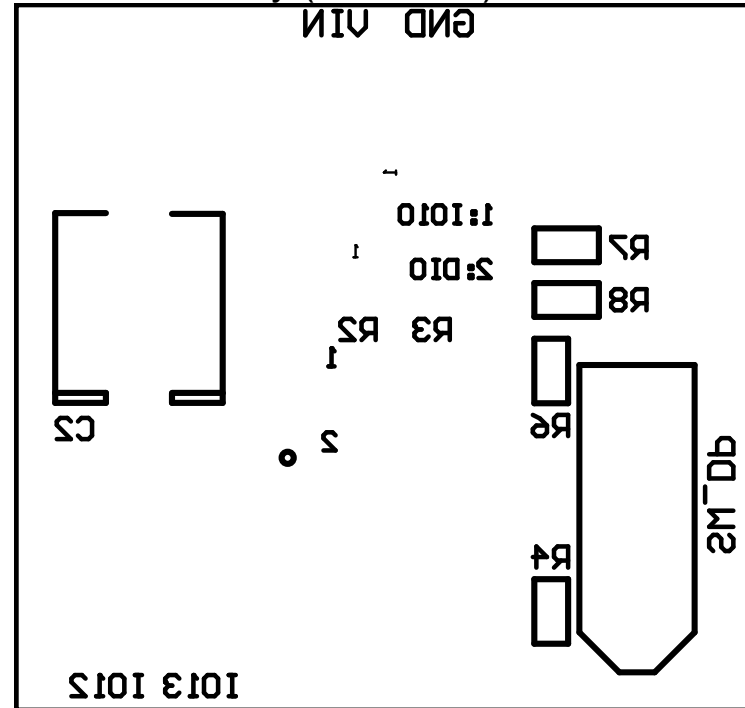
Bottom Paste (Scale 4:1)



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|---|--------------------|--|---|
| <b>BLE-SWITCH001-GEVB</b>                   |                    | <b>Revision:</b><br><b>Rev 4</b>                                   | <b>State:</b><br><b>released</b>  |
| <i>Bottom side solder paste</i>             |                    | Fabrication<br>document  | Sheet<br>10 / 13  |
| Engineer: T. Duris                          | Date: 6. July 2020 |  |   |
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Bottom Overlay (Scale 4:1)



**BLE-SWITCH001-GEVB**

Revision:  
Rev 4

State:  
released

Bottom side silkscreen

Fabrication  
document

Sheet  
11 / 13

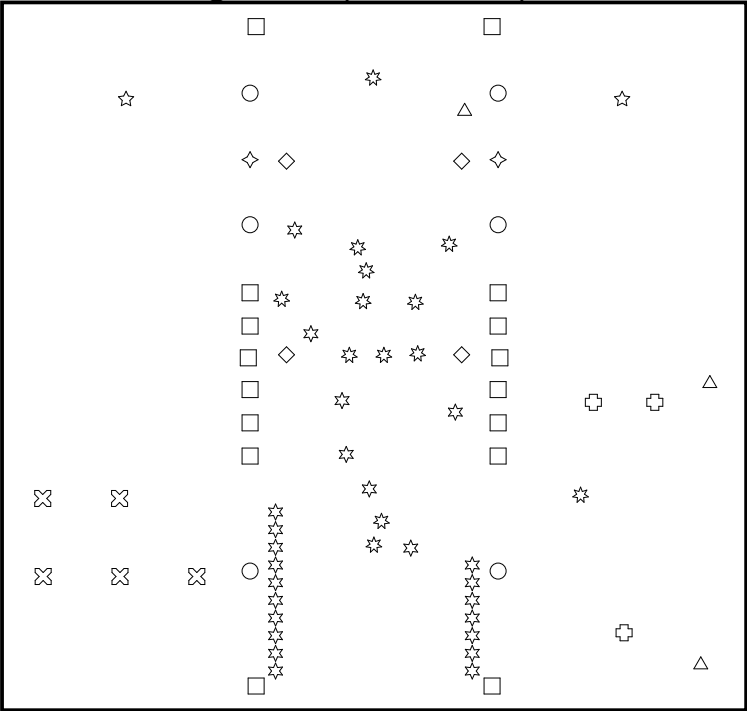
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Drill Drawing View (Scale 4:1)



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|---|--------------------|--|----------------------------|
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| <i>Drill drawing</i>                        |                    | Fabrication<br>document  | Sheet<br>12 / 13           |
| Engineer: T. Duris                          | Date: 6. July 2020 |  |                            |
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Drill Table

| Symbol   | Count | Hole Size       | Plated     | Drill Layer Pair         | Via / Pad | Template   |
|----------|-------|-----------------|------------|--------------------------|-----------|------------|
| ☆        | 24    | 0.152mm(6mil)   | Plated     | Top Layer - Bottom Layer | Via       | v16h6      |
| ☆        | 13    | 0.305mm(12mil)  | Plated     | Top Layer - Bottom Layer | Via       | v24h12     |
| □        | 16    | 0.500mm(20mil)  | Plated     | Top Layer - Bottom Layer | Pad       | p0_8h0_5   |
| ◇        | 2     | 0.500mm(20mil)  | Non-Plated | Top Layer - Bottom Layer | Pad       | p_hole_0_5 |
| △        | 3     | 0.508mm(20mil)  | Plated     | Top Layer - Bottom Layer | Via       | v40h20     |
| ◇        | 4     | 0.762mm(30mil)  | Plated     | Top Layer - Bottom Layer | Pad       | (Mixed)    |
| ○        | 6     | 0.800mm(31mil)  | Non-Plated | Top Layer - Bottom Layer | Pad       | (Mixed)    |
| ⊕        | 3     | 1.016mm(40mil)  | Non-Plated | Top Layer - Bottom Layer | Pad       | c102hn102  |
| ⊗        | 5     | 1.118mm(44mil)  | Plated     | Top Layer - Bottom Layer | Pad       | (Mixed)    |
| ☆        | 2     | 3.200mm(126mil) | Plated     | Top Layer - Bottom Layer | Pad       | p5_2h3_2   |
| 78 Total |       |                 |            |                          |           |            |

**BLE-SWITCH001-GEVB****Revision:**  
**Rev 4****State:**  
**released***Drill table*Fabrication  
documentSheet  
13 / 13

Engineer: T. Duris

Date: 6. July 2020

PCB File: BLE-SWITCH001-GEVB.PcbDoc

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2

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