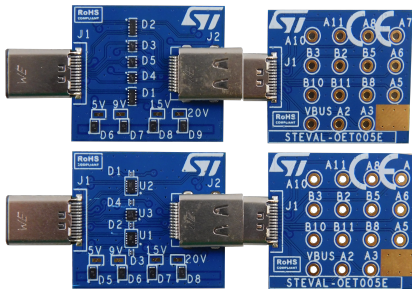


## Evaluation kit for USB Type-C ESD protection



### Features

- Data, control, and power line protections
- Plug and receptacle to connect the board to a host and a cable, or a device and a cable

### Description

The STEVAL-OET005 kit allows evaluating ST ESD protection devices or filtering devices for USB Type-C connectors.

There are two different kits available for sale. Each kit contains an evaluation board and a testing board.

The STEVAL-OET005VC kit provides a protection solution of all lines (data, control, and power) in a 500  $\mu\text{m}$  pitch package. This kit contains the STEVAL-OET005C evaluation board and the STEVAL-OET005E testing board.

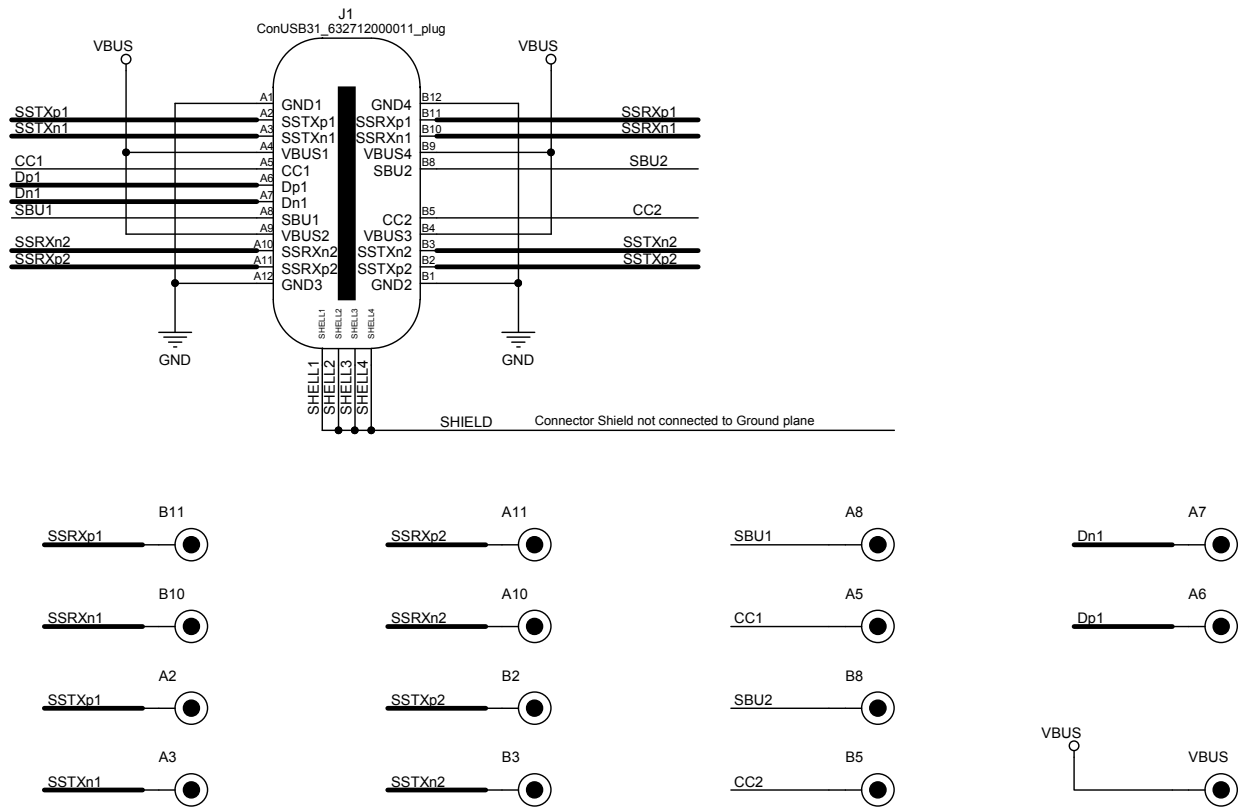
The STEVAL-OET005VD kit provides a protection and filtering solution (common mode filters and protection for all lines) in a 500  $\mu\text{m}$  pitch and 0201 package. This kit contains the STEVAL-OET005D evaluation board and the STEVAL-OET005E testing board.

#### Product summary

|   |  |
|---|--|
| USB Type-C protection development kit   | STEVAL-OET005  |
| ESD protections                         | ESD051-1BF4/<br>ECMF4-40A100N10/<br>HSP051-4M10/<br>ECMF02-2HSMX6/<br>HSP061-2M6 |
| High-power transient voltage suppressor | ESDA7P120-1U1M/<br>ESDA13P70-1U1M/<br>ESDA17P50-1U1M/<br>ESDA25P35-1U1M          |
| Applications                            | USB Type-C and Power Delivery  |



Figure 2. STEVAL-OET005E testing board circuit schematic



## 2 STEVAL-OET005VD schematic diagrams

Figure 3. STEVAL-OET005D evaluation board circuit schematic

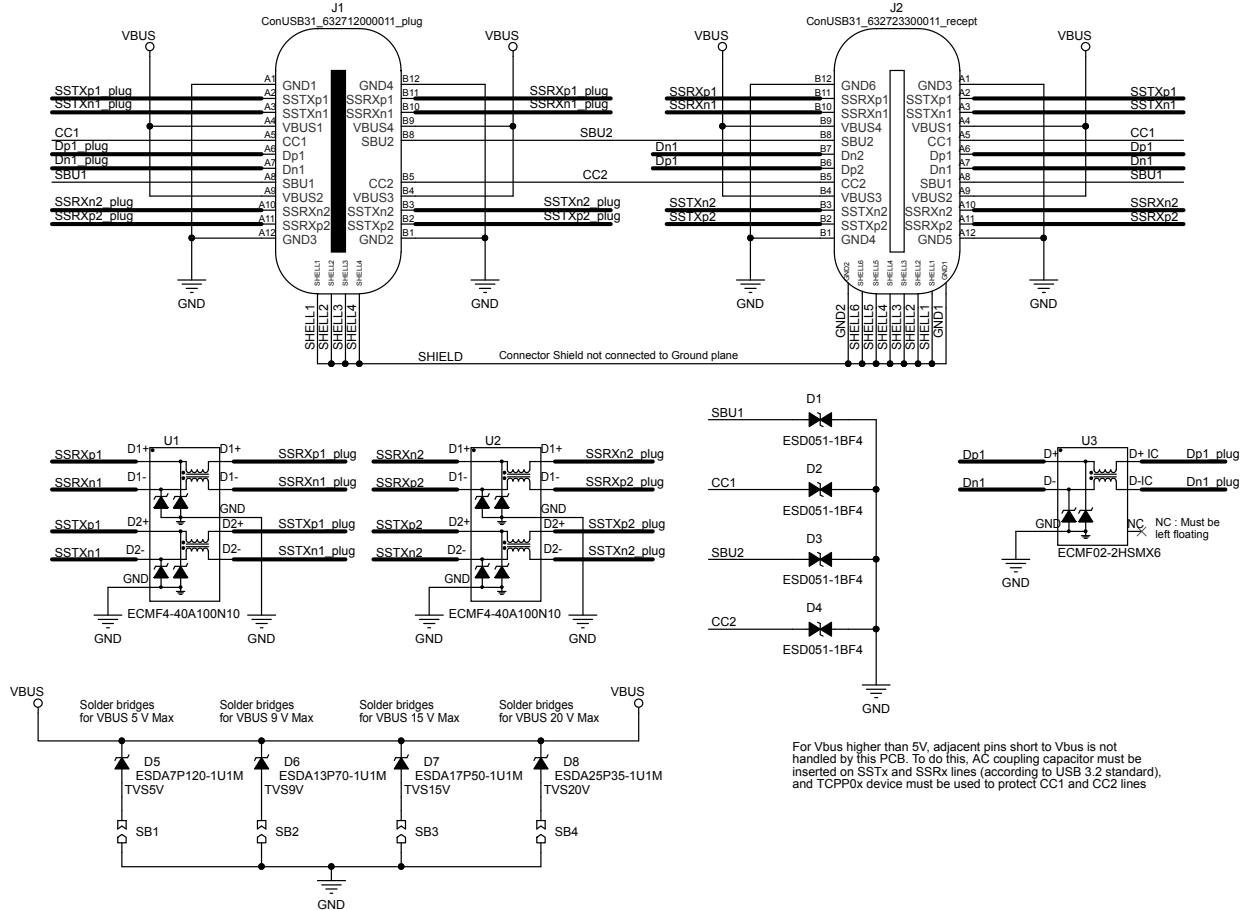
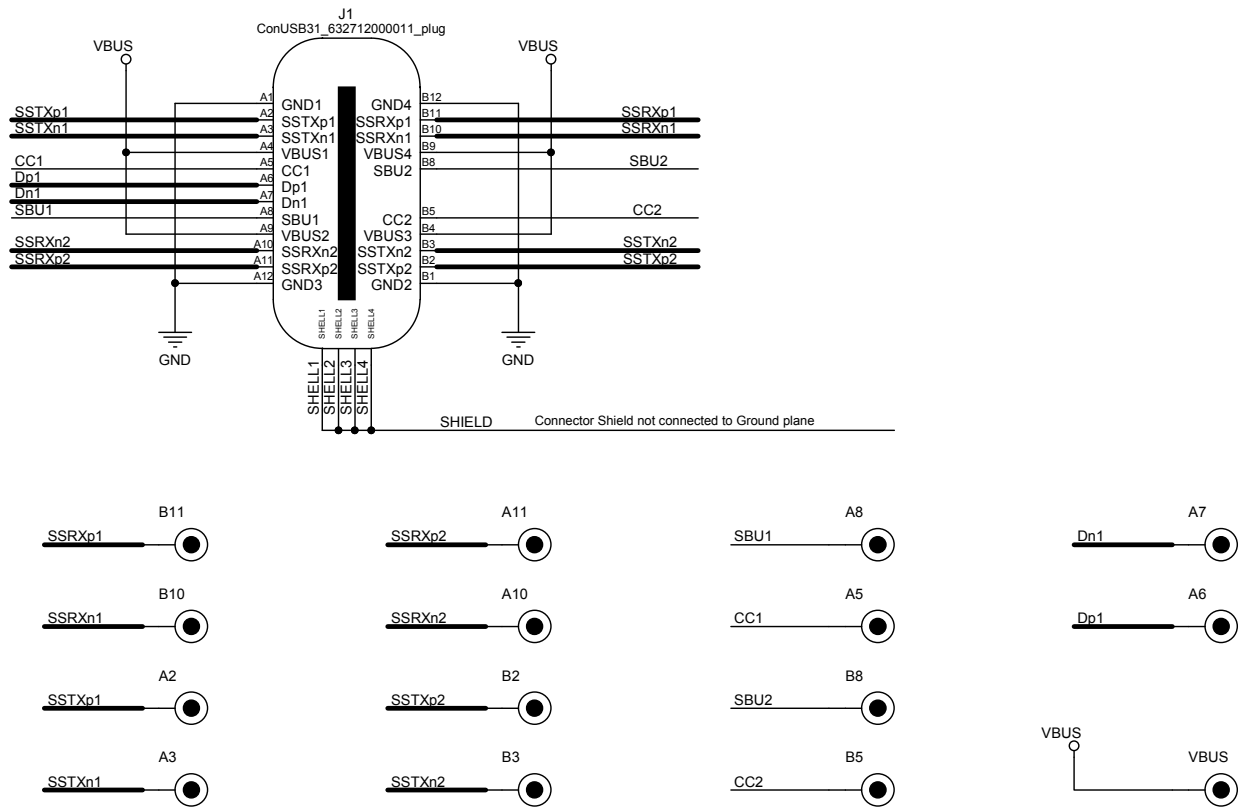




Figure 4. STEVAL-OET005E testing board circuit schematic



### 3 Kit versions

**Table 1. STEVAL-OET005 kit versions**

| PCB version <sup>(1)</sup> | Schematic diagrams                   | Bill of materials                   |
|----------------------------|--------------------------------------|-------------------------------------|
| STEVAL\$OET005VCA          | STEVAL\$OET005VCA schematic diagrams | STEVAL\$OET005VCA bill of materials |
| STEVAL\$OET005VDA          | STEVAL\$OET005VDA schematic diagrams | STEVAL\$OET005VDA bill of materials |

1. The STEVAL\$OET005VCA code identifies the first version of the STEVAL-OET005VC kit. The STEVAL\$OET005VDA code identifies the first version of the STEVAL-OET005VD kit.

## Revision history

**Table 2. Document revision history**

| Date        | Revision | Changes   |
|-------------|----------|---|
| 15-Nov-2022 | 1        | Initial release.                                |
| 06-Dec-2022 | 2        | Removed STEVAL-OET005VA and STEVAL-OET005VB.    |
| 12-Jan-2023 | 3        | Replaced ECMF4-2450A60N10 with ECMF4-40A100N10. |

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