

## 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/ ECMF4-40A100N10/ HSP051-4M10/ ECMF02-2HSMX6/ HSP061-2M6
High-power transient voltage suppressor	ESDA7P120-1U1M/ ESDA13P70-1U1M/ ESDA17P50-1U1M/ ESDA25P35-1U1M
Applications	USB Type-C and Power Delivery

# 1 STEVAL-OET005VC schematic diagrams

Figure 1. STEVAL-OET005C evaluation board circuit schematic

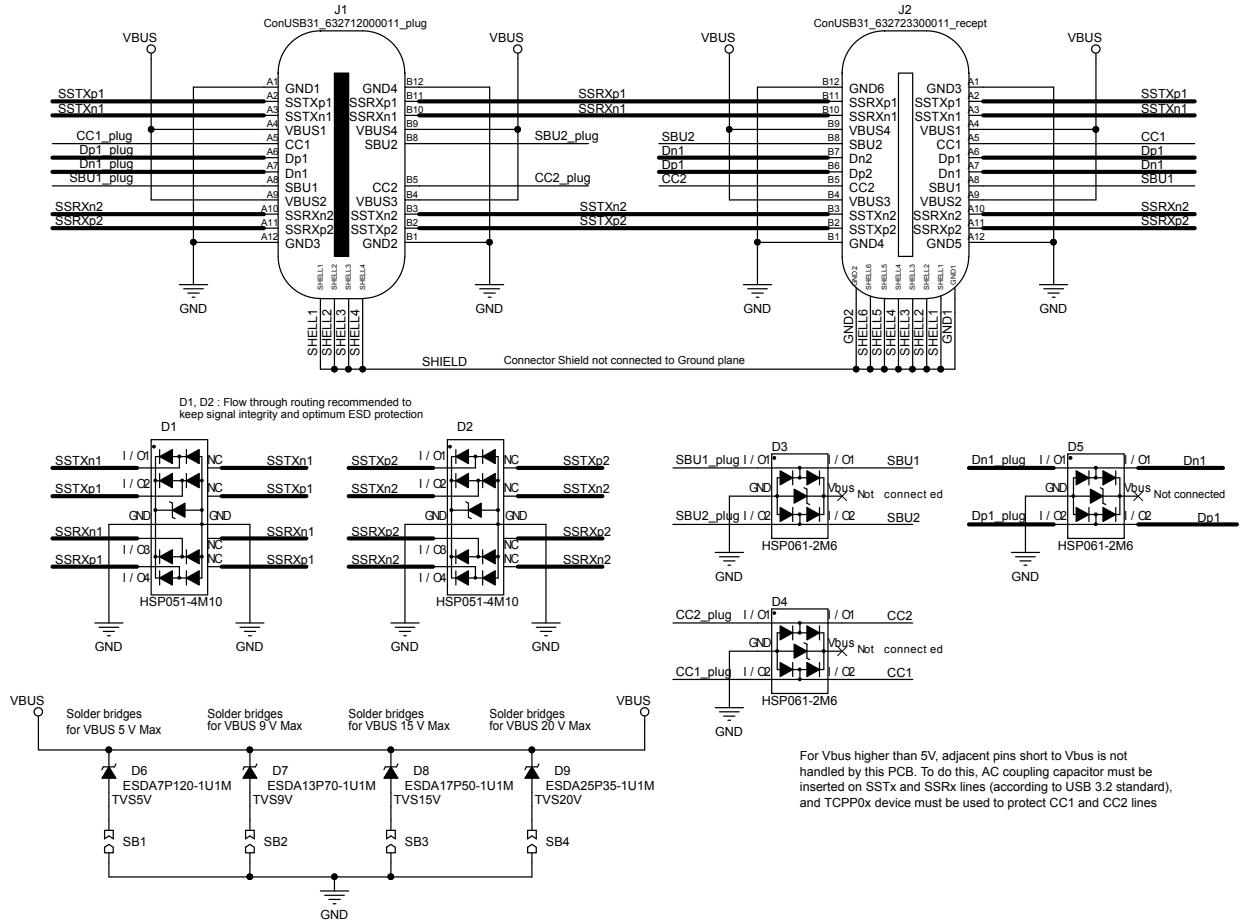
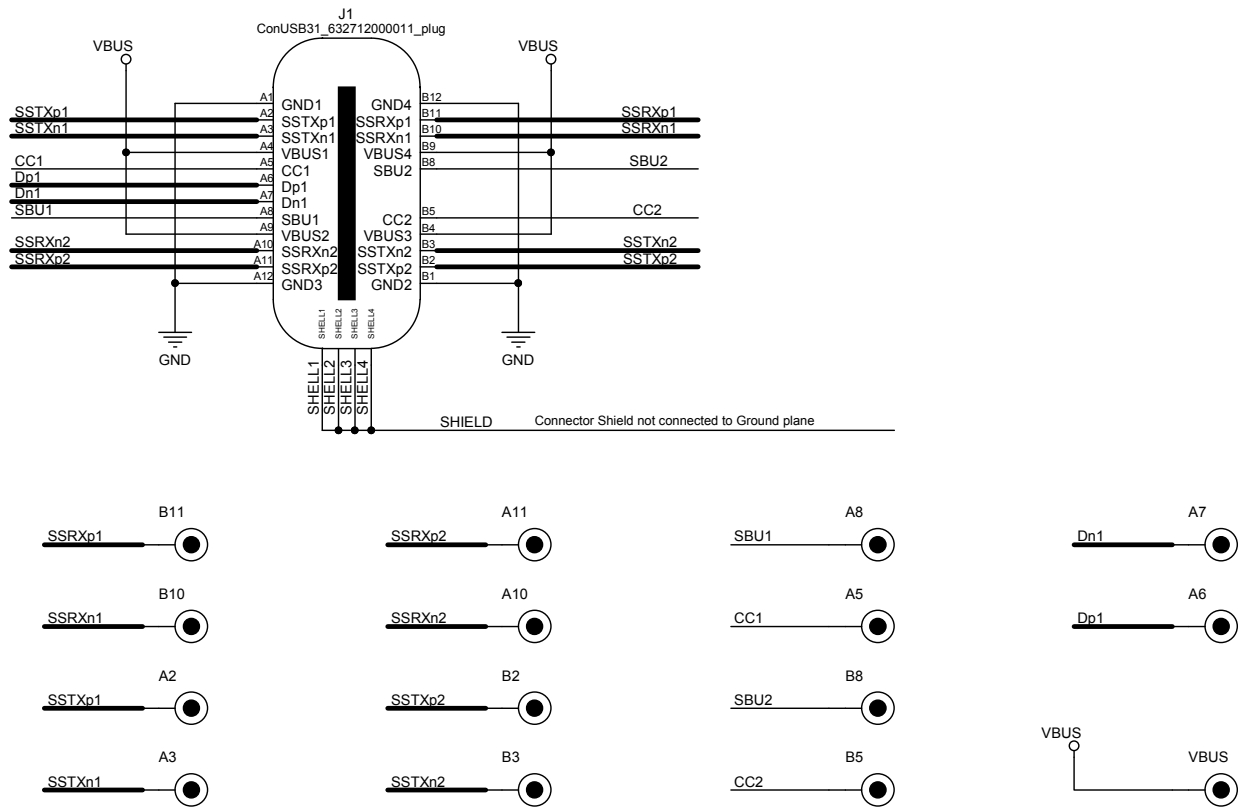


Figure 2. STEVAL-OET005E testing board circuit schematic



## 2 STEVAL-OET005VD schematic diagrams

Figure 3. STEVAL-OET005D evaluation board circuit schematic

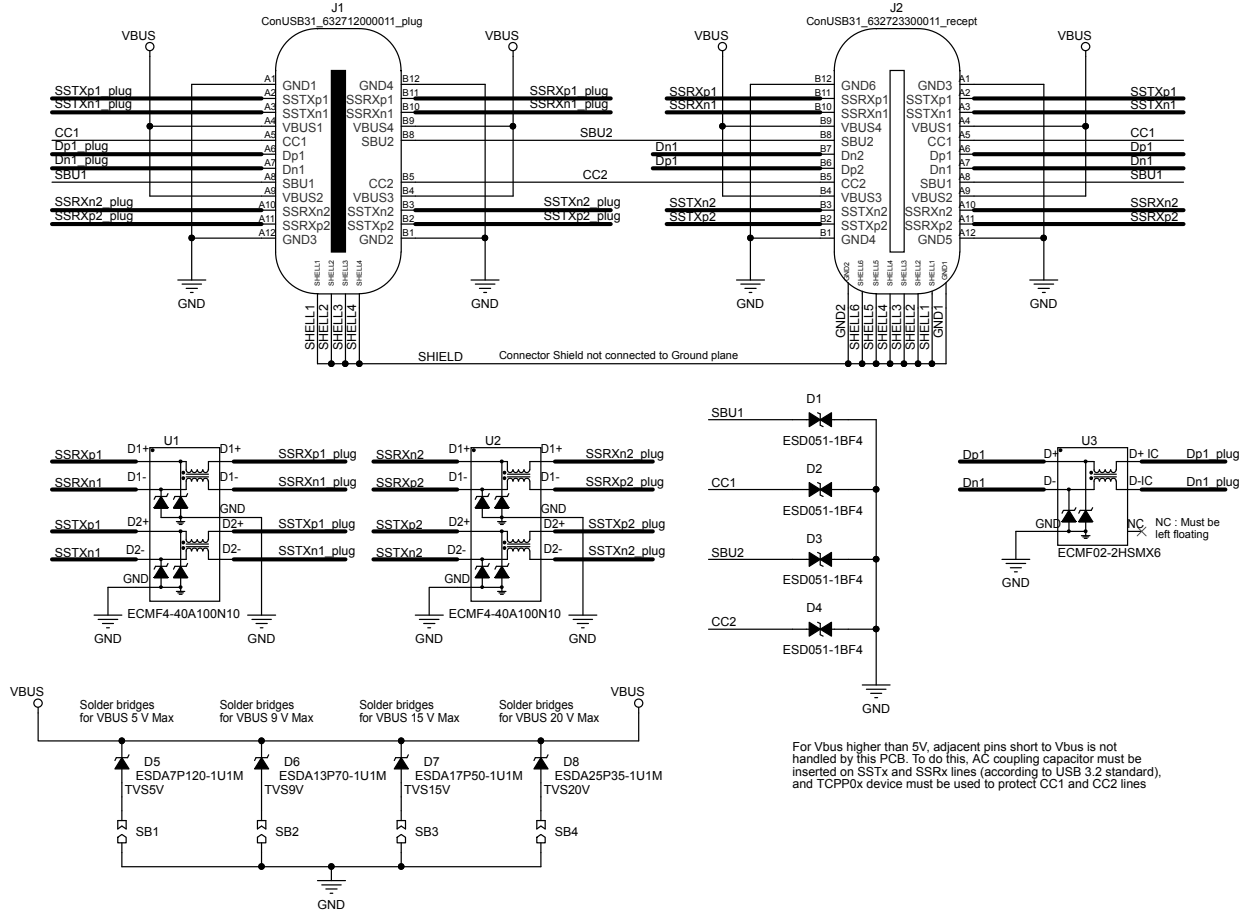
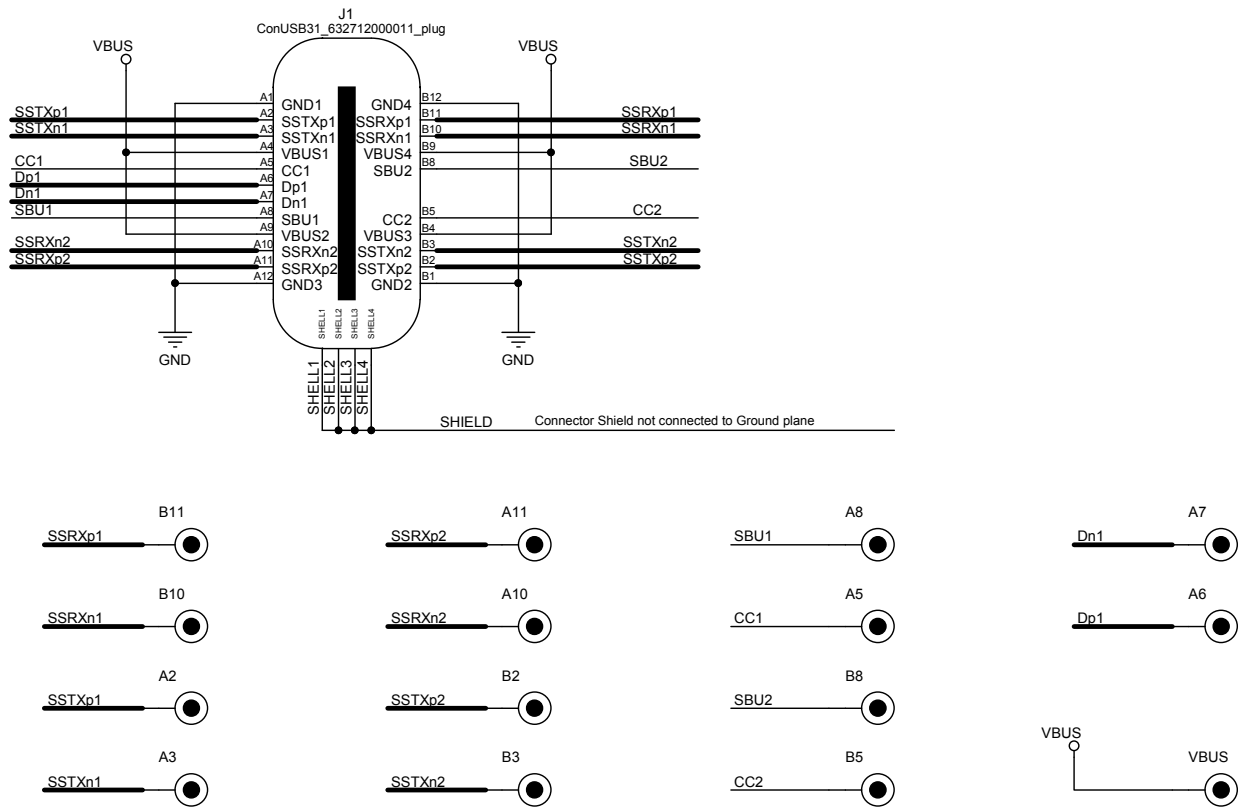


Figure 4. STEVAL-OET005E testing board circuit schematic



### 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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