

USB to I²C evaluation board for interfacing wireless applications with PC GUI tool



Features

- Fully independent USB I²C bridge for communication between GUI and ST evaluation boards for wireless charging
- Standardized pinout for all ST wireless charging evaluation boards
- No additional programming
- I²C interface
- Output voltage from USB connector for DC powering of evaluation boards

Description

The **STEVAL-USBI2CFT** is an evaluation board based on the FT260Q. It is designed for communication and programming of all ST wireless charging evaluation boards and WLC ICs on custom design boards.

The **STEVAL-USBI2CFT** allows the quick start of Qi compatible wireless charging transmitter and receiver projects.

This reference design document is limited to only provide sufficient information for the usage of the USB I²C bridge for communication with GUI and programming.

With the usage of a USB I²C bridge, the user can monitor and control the ST wireless charging evaluation boards using the **STSW-WPSTUDIO** graphical user interface (GUI).

The **STEVAL-USBI2C** board includes an internal level-shifter.

The voltage level can be changed soldering one of the soldering bridges.

The voltage can be set to 1.8, 2.5 or 3.3 V depending from what solder bridge was soldered.

Product summary	
USB to I ² C evaluation board for interfacing wireless applications with PC GUI tool	STEVAL-USBI2CFT
Supported wireless charging boards	STEVAL-WLC98RX/ STEVAL-WLC99RX/ STDES-WLC38WA/ STDES-WLC38TWS/ STDES-WBC86WTX
Graphical user interface for wireless power receiver and transmitter evaluation boards	STSW-WPSTUDIO
Applications	Wireless Chargers

1 Component layout

Figure 1. STEVAL-USBI2CFT PCB layout

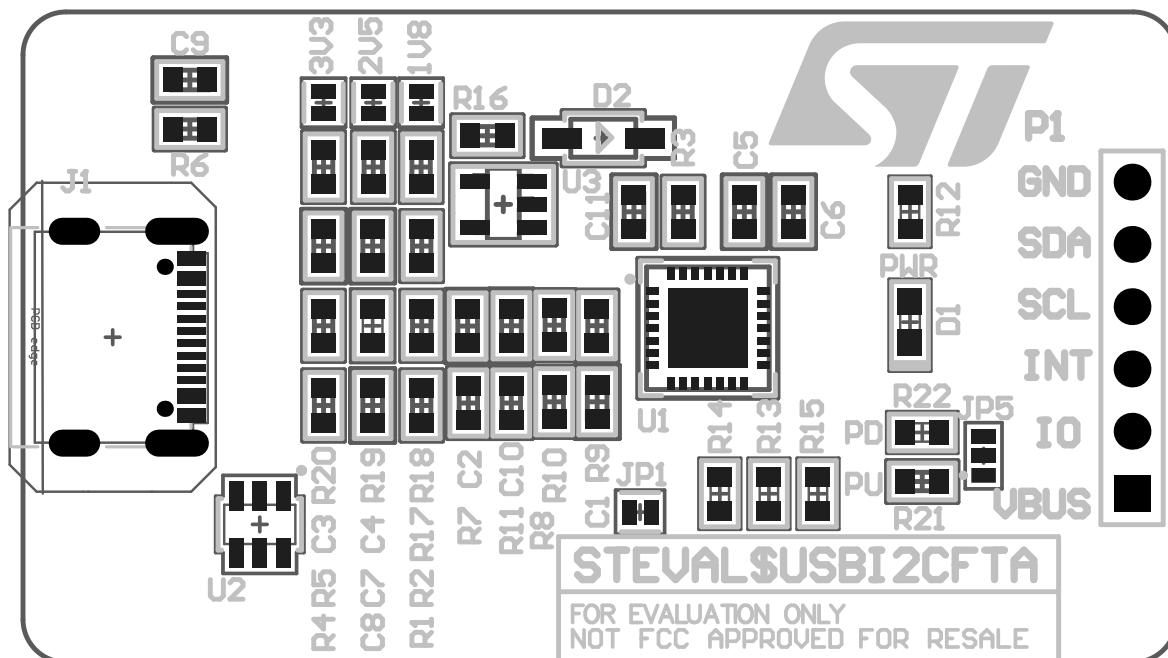


Figure 2. STEVAL-USBI2CFT top layout

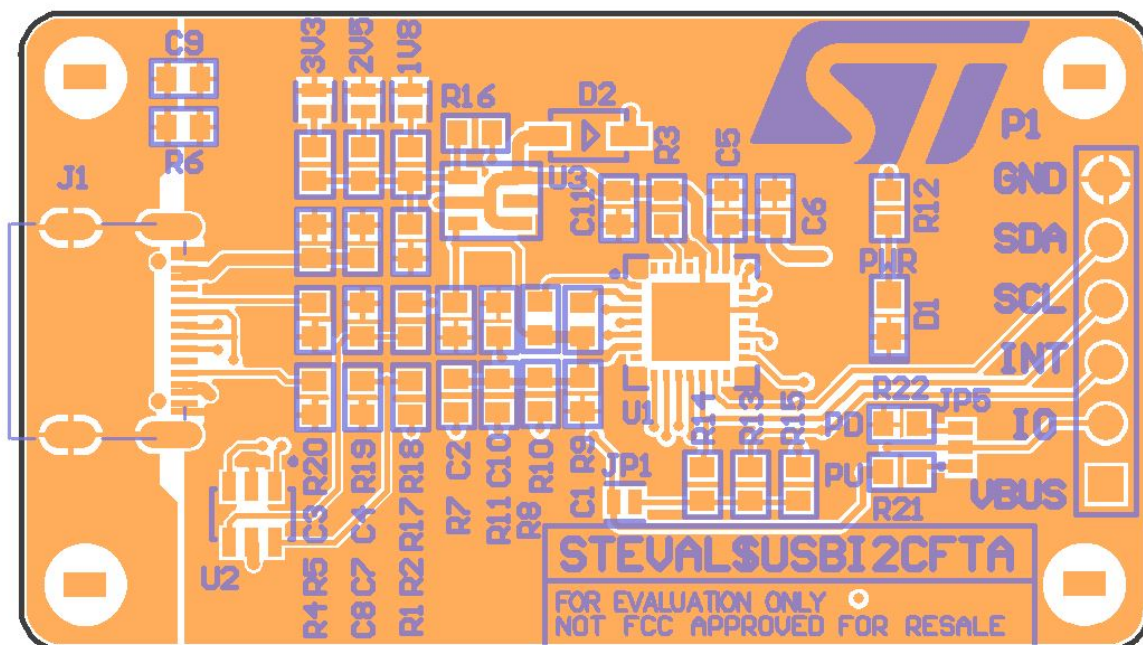
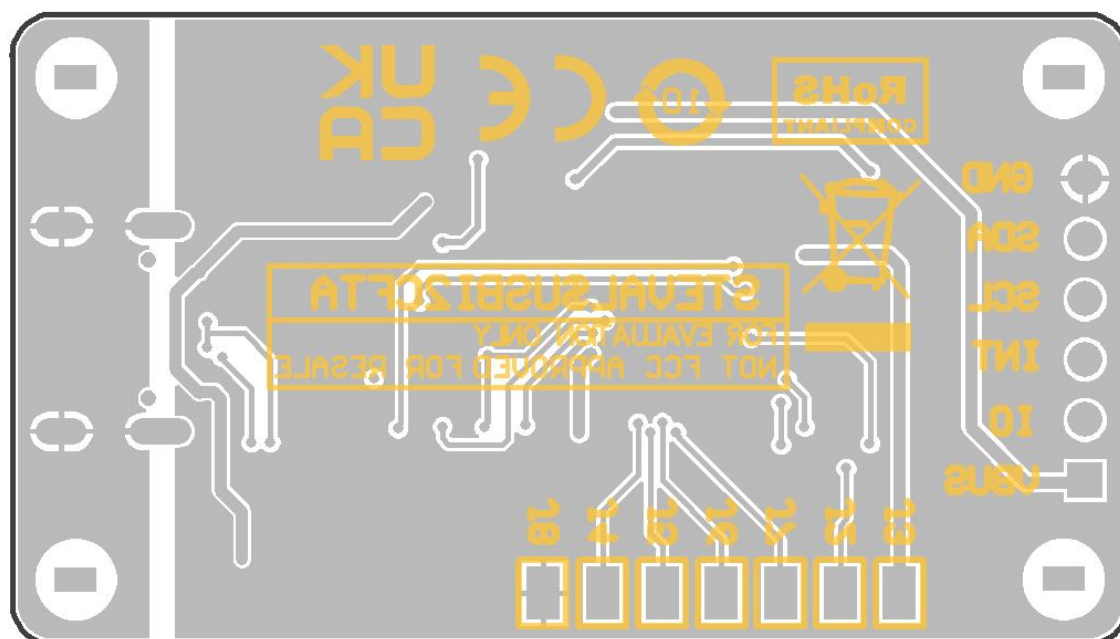
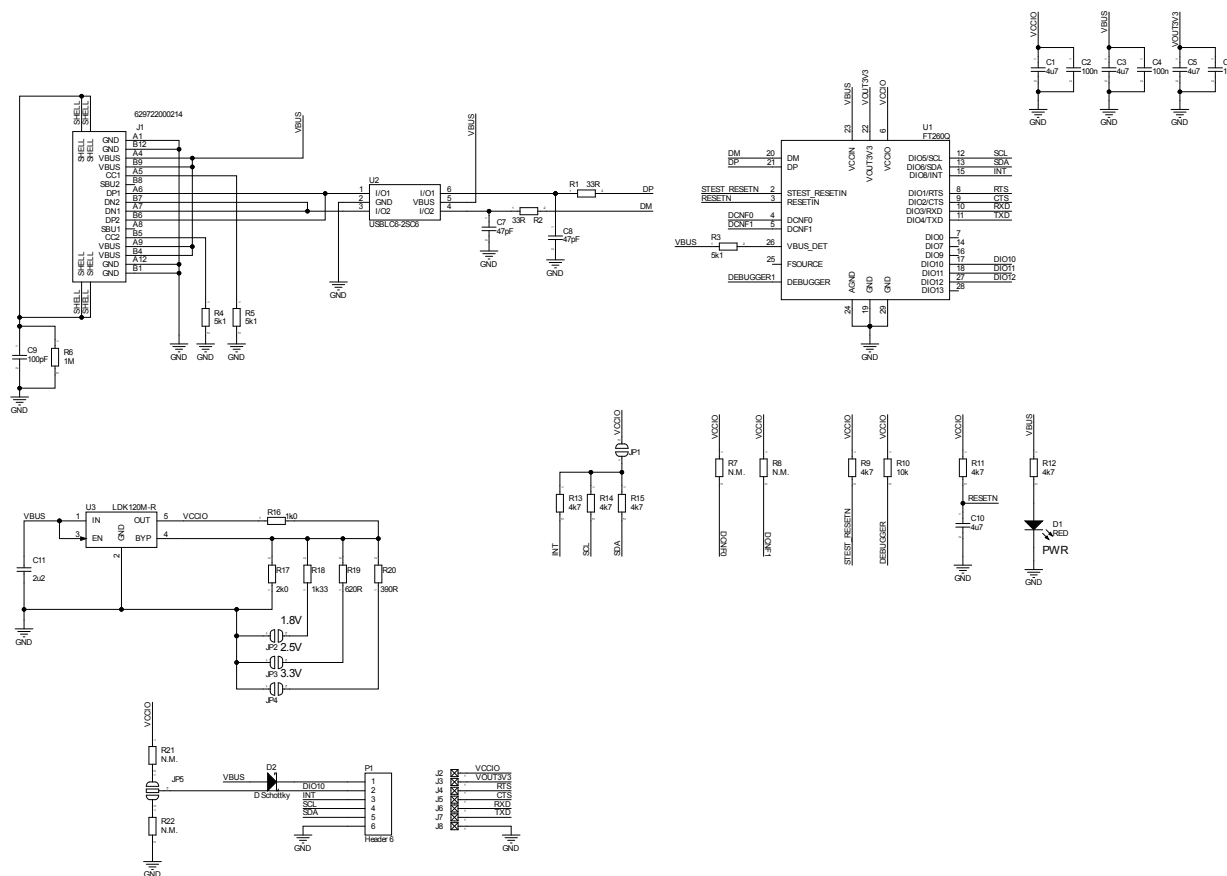


Figure 3. STEVAL-USBI2CFT bottom layout



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Figure 4. STEVAL-USBI2CFT circuit schematic



3 Board versions

Table 1. STEVAL-USBI2CFT versions

FG version	Schematic diagrams	Bill of materials
STEVAL\$USBI2CFTA ⁽¹⁾	STEVAL\$USBI2CFTA- schematic diagrams	STEVAL\$USBI2CFTA-bill of materials

1. This code identifies the STEVAL-USBI2CFT expansion board first version. It is printed on the board PCB.

Revision history

Table 2. Document revision history

Date	Revision	Changes
18-Sep-2023	1	Initial release.

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