

TE0630 Configuration and user DIP Switches

TE0630 Configuration Switches: settings for USB Firmware, FPGA bitstream programming and Power Supply.


On-board 4xDIP switch S1 used for system and user settings.

System setting

Slide Switch S1A

Switch S1A is used to connect the USB controller to the IIC serial EEPROM:

- when switch S1A is "ON", serial IIC EEPROM is connected to the USB controller,
- when switch S1A is "OFF", the USB FX2 microcontroller is disconnected from the EEPROM.

 Zero-resistor R90 (not populated by default) may short this switch and connect EEPROM regardless of S1A position.

Turn S1A on when programming the USB EEPROM (storing the USB vendor ID and device ID).

TE USB FX2 module is powered on when S1A is turned off: this will force the USB controller to provide its default (Cypress) vendor ID and device ID.

Slide Switch S1B

Switch S1B is used to control DC-DC converters:

- when switch is "OFF", converters are controlled by the USB controller;
- when switch is "ON", converters are enabled regardless of USB controller actions. At start-up, the USB controller switches off 1.2V, 1.5V and 2.5 V power rails and starts up the module in low-power mode. After enumeration, the USB controller firmware switches the 1.2V, 1.5V and 2.5V power rails on, if enough current is available from the USB bus.

User Settings

Switches S1C and S1D can be used as user switches. Switches are active-low. Pull-up resistors should be defined in user constrains file (UCF) to use this switches in FPGA design. See the table below for details

Signal name	FPGA pin	Switch
IO_L61_N_1	AB21	S1C
IO_L63_N_1	AA22	S1D

DIP switch pin-out