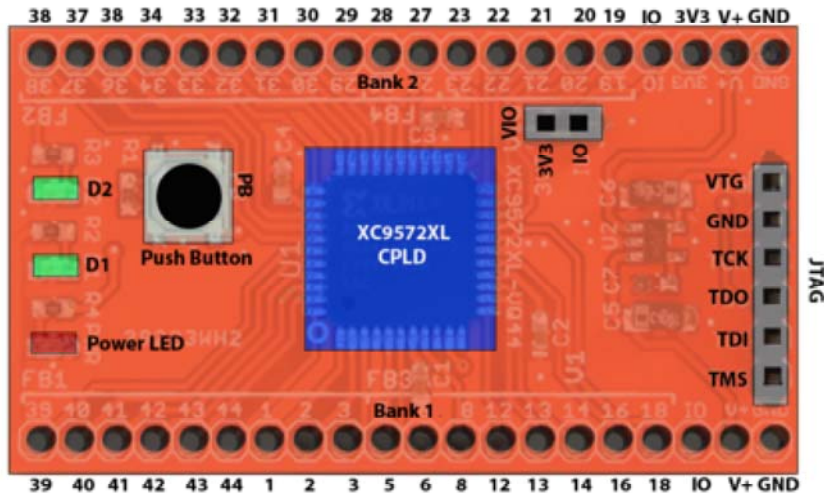# XC9572XL CPLD dev-board introduction

From DP

The development board comes programmed with the inverse LED toggle demo.

1. Ensure that header VIO has a jumper to provide 3.3volts to the IO pins
2. Power up the board:
    1. Option 1: Connect a 5volt power supply to V+, connect one of the GND pins to the power supply ground
    2. Option 2: Connect a 3.3volt power supply to VTG on the JTAG header, connect one of the GND pins to the power supply ground
3. LED D1 will light
4. Press the button (PB): LED D1 turns off and LED D2 turns on

Overview

- JTAG header - Program the CPLD through this header. VTG provides 3.3volt output to programmer
- VIO header - Connect IO to on-board 3.3volt supply
- D1 LED - User LED connected to pin 39
- D2 LED - User LED connected to pin 38
- PWR LED - Power LED, lights when the 3.3volt supply is active
- PB button - Push button for input, connected to CPLD pin 18
- GND pin - Ground connection, only one pin needs to be connected to the power supply ground
- V+ pin - Power supply for on-board 3.3volt regulator (5volts max)
- 3V3 pin - 3.3volt output (max 100mA)

- IO pin - External supply for IO pins, make sure header VIO has NO jumper, only one IO pin needs to be connected to the power supply
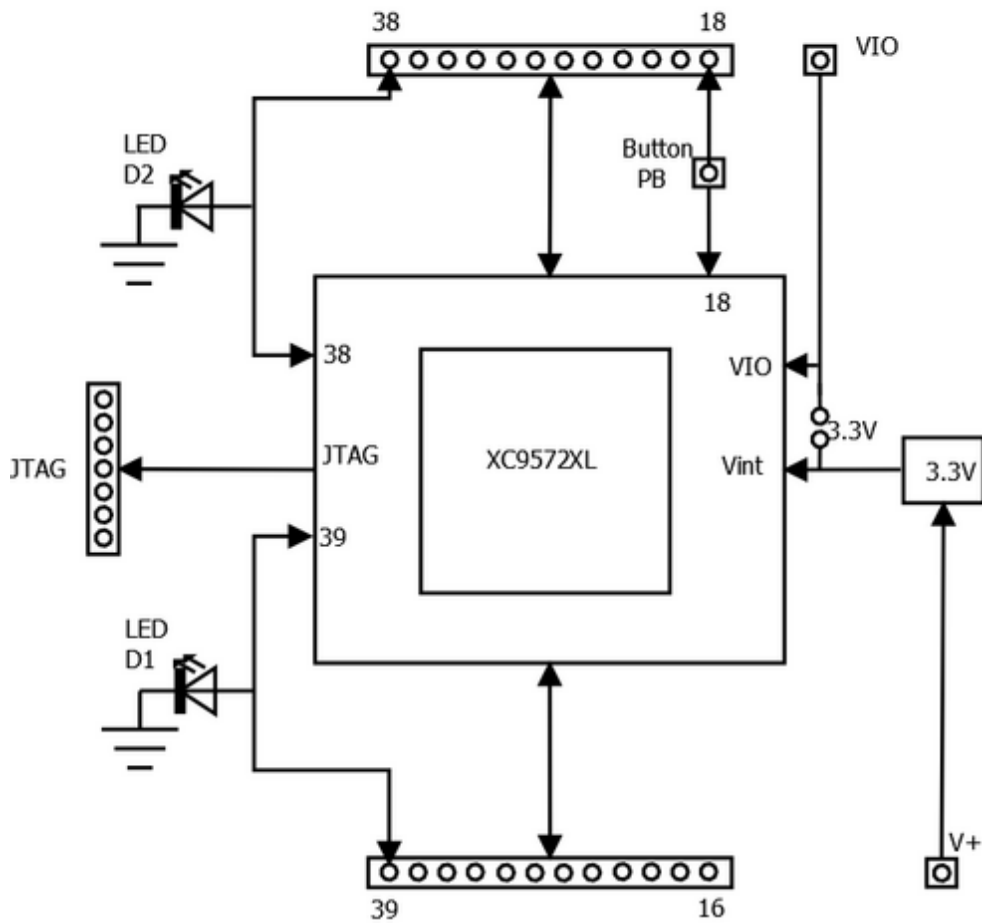
Pinout table

Pinout

FB4/2	Description	Description	FB3/FB1
GND	Ground connection	Ground connection	GND
V+	Supply voltage (max 5volts)	Supply voltage	V+
3V3	3.3volt output (max 100mA)	IO external supply (1.2-3.3volts)	IO
IO	IO external supply	Push button	18
19			16
20			14
21			13
22			12
23			8
27			6
28			5
29			3
30			2
31			1
32			44
33			43
34			42
36			41
37			40
38	LED D2	LED D1	39

Functional diagram

XC957XL CPLD Breakout