

Configuring T4/T8 FPGA with Multiple Images

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The Application document

- <https://www.efinixinc.com/support/ed/configuring-fpgas-with-multiple-images.php>

应用方法

- 在一个FPGA中通过2-bits外部拨码开关,
- 或者MCU的2 output GPIOs控制实现4种不同的功能

应用场景

- 工业控制产品的同平台不同细分版本支持
- LED领域不同温度系数调整
- 相机模组中不同帧数的控制

Helloworld more design

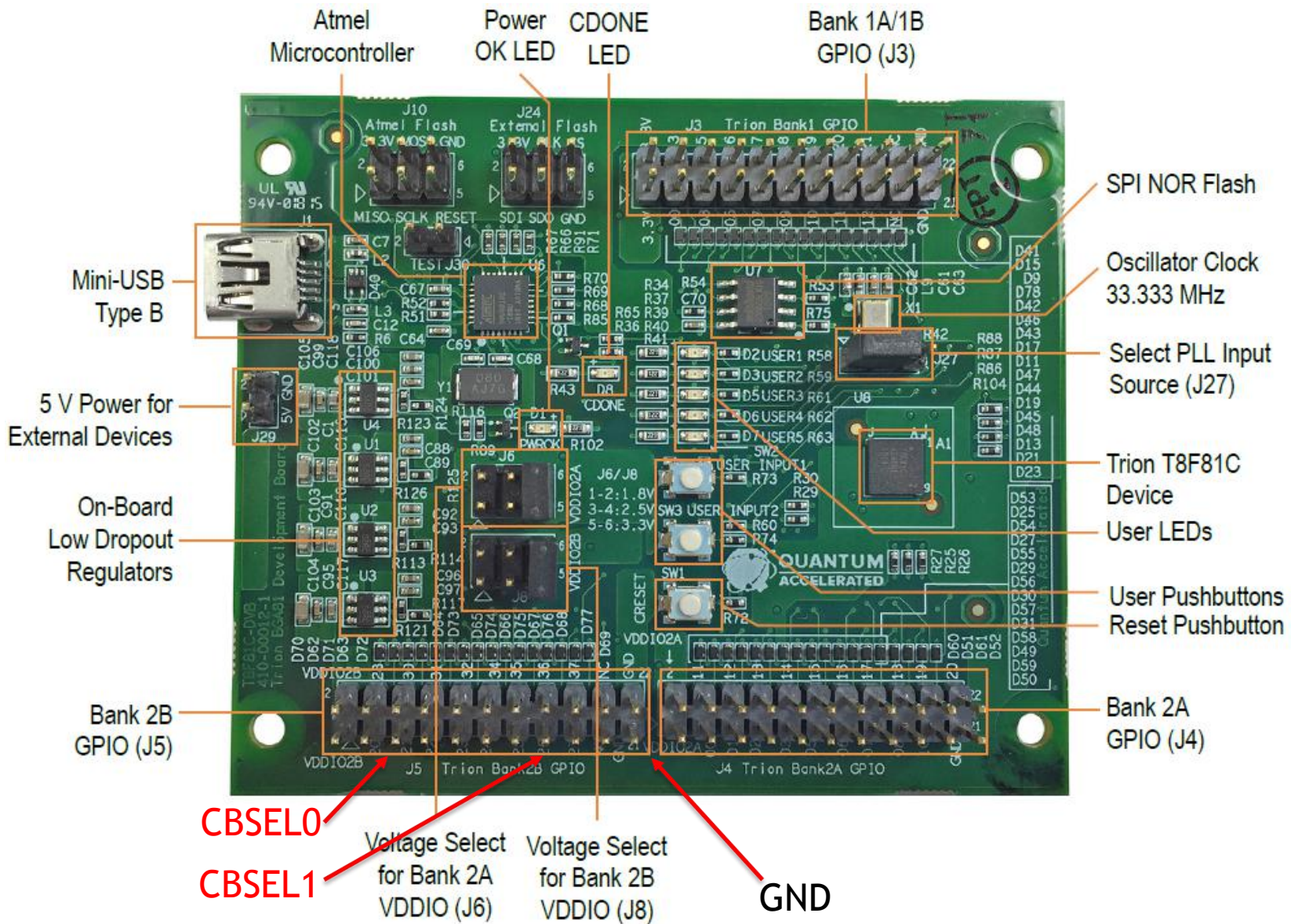
- The software assigns the images to CBSEL pins as follows:
- **helloworld_fast.hex**: CBSEL[1:0] = 00
- **helloworld_fast_reverse.hex**: CBSEL[1:0] = 01
- **helloworld_slow.hex**: CBSEL[1:0] = 10
- **helloworld_slow_reverse.hex**: CBSEL[1:0] = 11

Load the Image

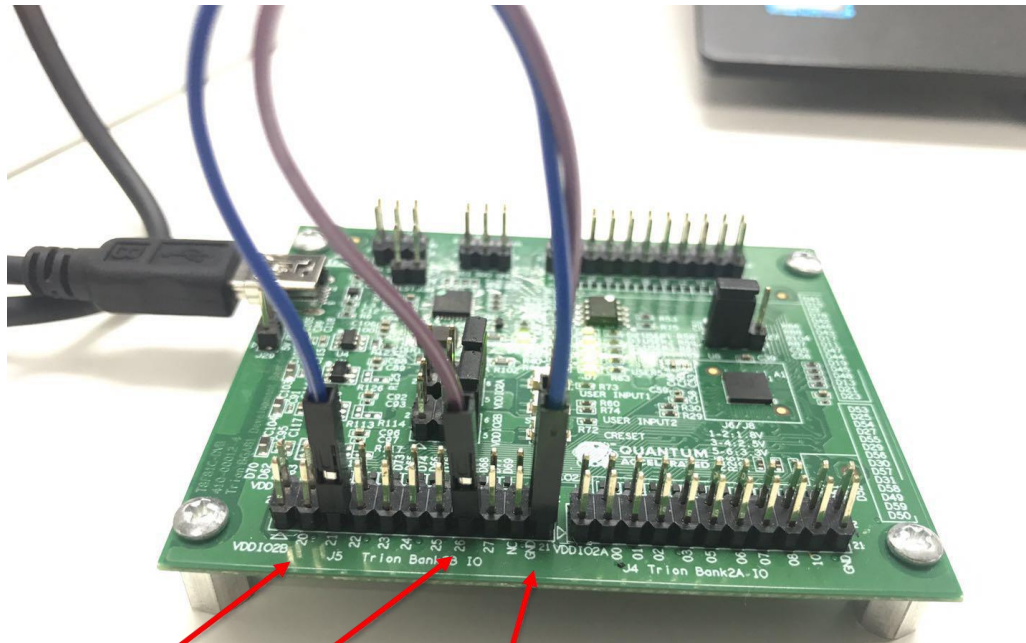
CBSEL Values	Connect GPIOR_21 To (On Header)	Connect GPIOR_26 To (On Header)
CBSEL1 = 0, CBSEL0 = 0	GND	GND
CBSEL1 = 0, CBSEL0 = 1	GND	VDDIO2B
CBSEL1 = 1, CBSEL0 = 0	VDDIO2B	GND
CBSEL1 = 1, CBSEL0 = 1	VDDIO2B	VDDIO2B

Pin Setting in T8EVB

		J5_5	J5_15	J5_2 1	J5_1 J5_2
		GPIOR_21	GPIOR_26	GND	VDDIO2B
Image_0	CBSEL1 = 0, CBSEL0 = 0	GND	GND		
Image_1	CBSEL1 = 0, CBSEL0 = 1	GND	OPEN		
Image_2	CBSEL1 = 1, CBSEL0 = 0	OPEN	GND		
Image_3	CBSEL1 = 1, CBSEL0 = 1	OPEN	OPEN		



Multi-image setup



CBSEL0

CBSEL1

GND