

Drive for better vision



EVK and PC Tool User Guide for HX6538 ISM028-03M V1.1

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Agenda

- **Board Introduction**

- ❖ ISM028-03M Introduction
- ❖ Demo Board 2(DB2) Introduction

- **PC Tool Usage**

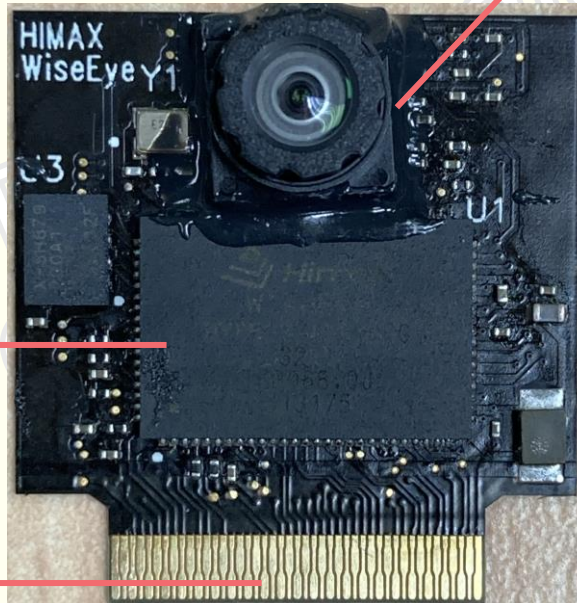
- ❖ PC Environment Setting
- ❖ Flash Programming Procedures
- ❖ Image Reception and Result Detection

Board Introduction

HX6538 ISM028-03M

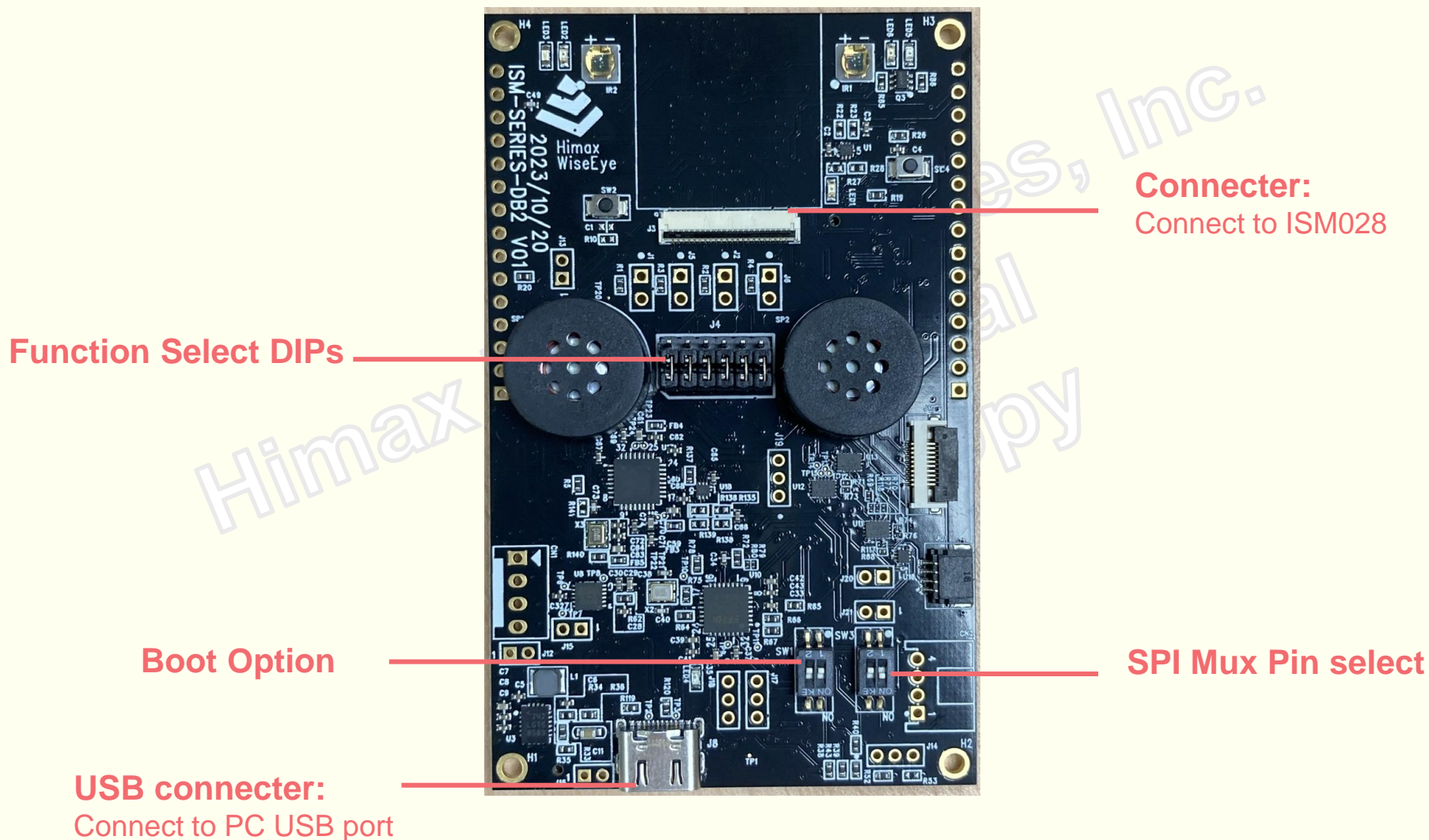
HX6538

Camera



Connector:
Connect to DB2

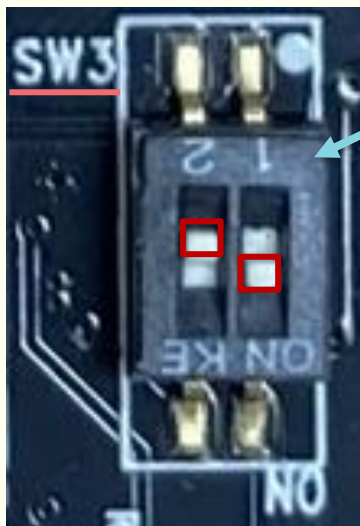
Demo Board 2 (FT4222H)



DB2 – SPI Mux PIN Select (SW3)

- **SPI Mux Pin select**

- ❖ [2, 1] = [OFF, **ON**]: FT4222H SPI Slave mode for image transfer
- ❖ [2, 1] = [**ON**, OFF]: FT4222H SPI Master mode for image transfer



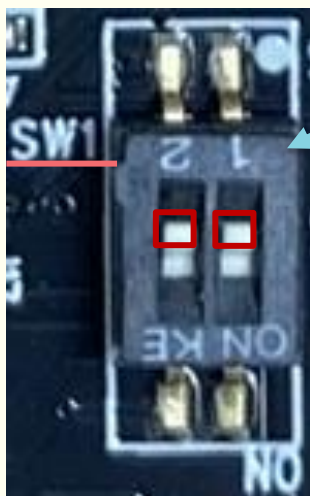
SPI Mux Pin select

SWITCH	MODE
 2 1	EVB: SPI Master (SDK Default) FT4222H: SPI Slave
 2 1	EVB: SPI Slave FT4222H: SPI Master

DB2 – Boot Option (SW1)

- **Boot Option Mode**

- ❖ [2, 1] = [OFF, OFF]: Normal Mode (Firmware Running)
- ❖ [2, 1] = [OFF, **ON**]: Flash Mode (For burning Firmware Image)

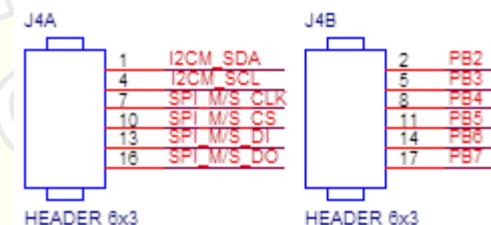


SPI Mux Pin select

SWITCH	MODE
 2 1	Normal Mode
 2 1	Flash Mode

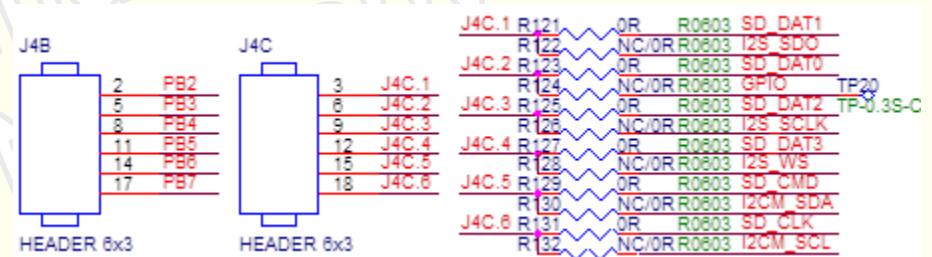
DB2 - Function Select DIPs (J4)

- J4B <-> J4A
 - ❖ PB2 <-> I2CM SDA
 - ❖ PB3 <-> I2CM SCL
 - ❖ PB4 <-> SPI M/S CLK
 - ❖ PB5 <-> SPI M/S CS
 - ❖ PB6 <-> SPI M/S DI
 - ❖ PB7 <-> SPI M/S DO



DB2 - Function Select DIPs (J4)

- J4B <-> J4C
 - ❖ PB2 <-> SD_DAT1
 - ❖ PB3 <-> SD_DAT0
 - ❖ PB4 <-> SD_DAT2
 - ❖ PB5 <-> SD_DAT3
 - ❖ PB6 <-> SD_CMD
 - ❖ PB7 <-> SD_CLK



PC Tool Usage

(*WE2_DEMO_TOOL*)

PC Tool Usage (*WE2_DEMO_TOOL*)

- **PC Environment Setting**

1. **Install FT4222H driver**

(path: SDK_root/_Documents/driver.7z)

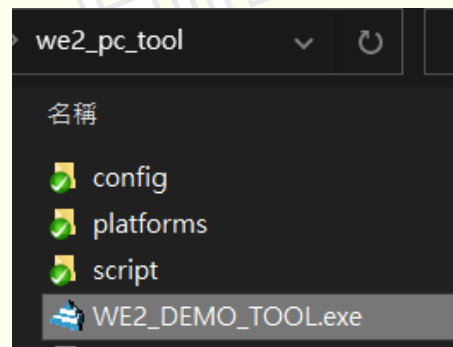
2. **Install VC++ Distribution**

(Download VC_redist.x64.exe by url:

<https://learn.microsoft.com/en-US/cpp/windows/latest-supported-vc-redist?view=msvc-170>)

- **Execute *WE2_DEMO_TOOL.exe***

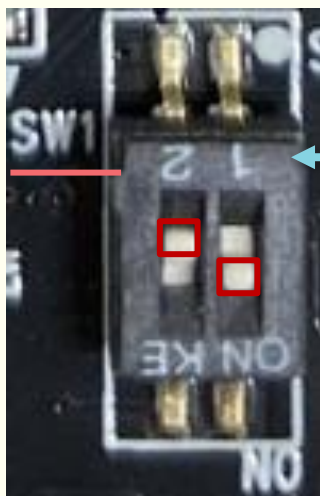
(path: SDK_root/we2_pc_tool/WE2_DEMO_TOOL.exe)




Flash Programming Procedures

Flash Programming Setting

- Set the switches on DB2 for **flash mode**.
 - ❖ [2, 1] = [OFF, ON]: Flash Mode (For burning Firmware Image)



SWITCH	MODE
 2 1	Flash Mode

EVB Flash Programming Procedures

1. Lunch the PC Tool “WE2_DEMO_TOOL”

(path: SDK_root/we2_pc_tool/WE2_DEMO_TOOL.exe)

2. Following the procedures to flash firmware:

- ① Switch to “**BURN FLASH**” page.
- ② Click the “**Select File**” to select flash image file.
(path: SDK_root/we2_ota_tool/img/output.img)
- ③ Click the “**Start**” to start burning image.
- ④ Wait the progress until 100%.

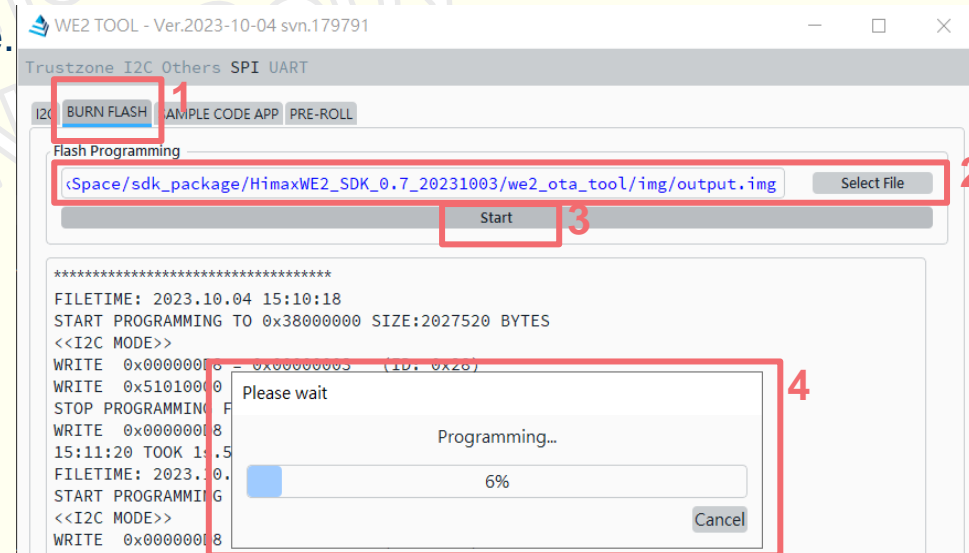
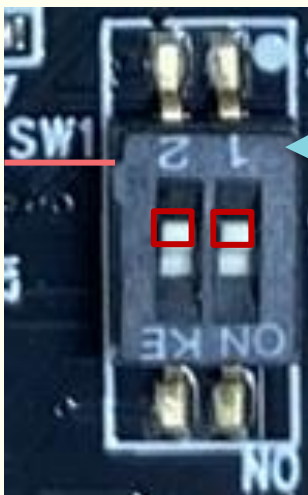


Image Reception and Result Detection

Normal Mode Setting

- Set the switches on DB2 for **normal mode**.




SWITCH	MODE
 2 1	Normal Mode

Image Reception and Result Detection

● Receive **Image + Metadata**

- ① Switch to “**SAMPLE CODE APP**” page.
- ② Choose “**SPI SLAVE**”.
- ③ Enable “**Enable Metadata**”.
- ④ Click “**START**” to start receiving the data from EVK.
- ⑤ PC Tool will show the image.
(If any person was detected, PC tool will mark the detected person with bounding box.)

