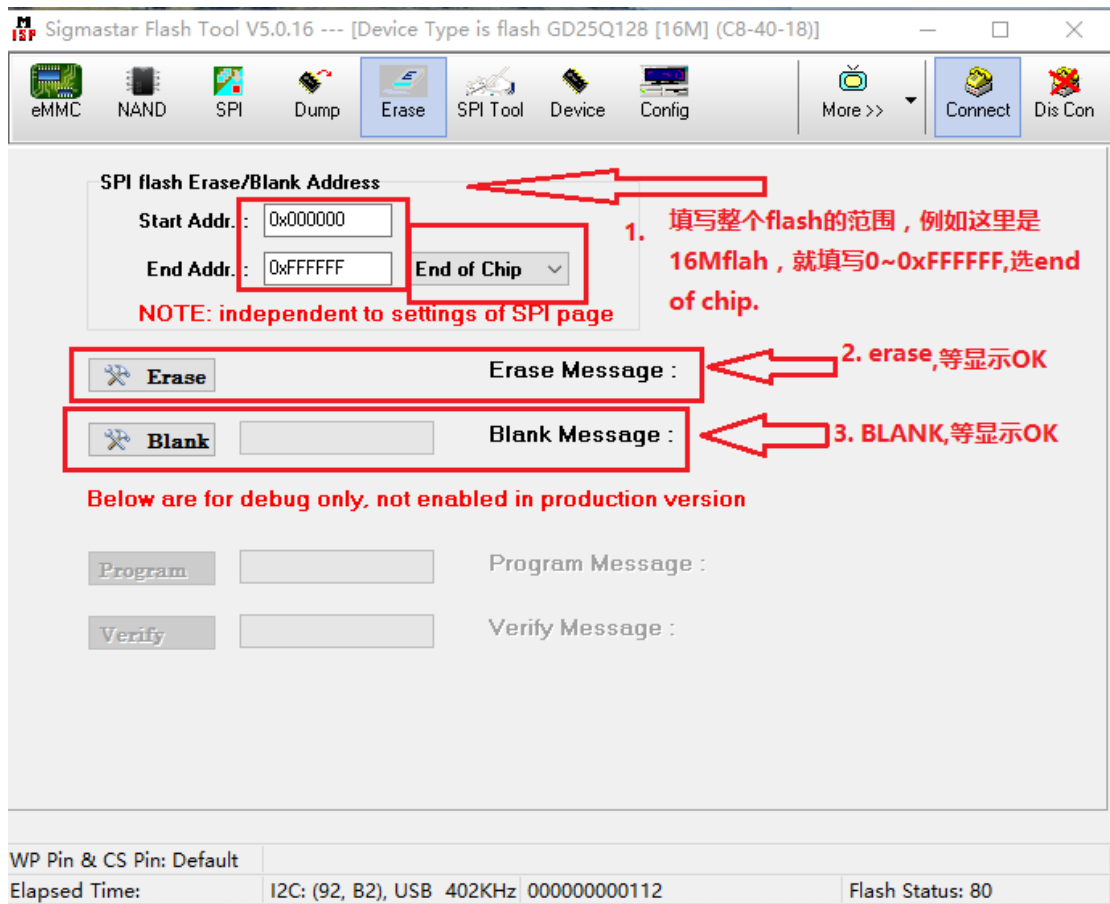


SPI NOR 母片制作

SPI NOR 母片除了可以使用烧录器操作外, Flash_Tool(ISP_Tool)也提供了简易的 dump 功能, 用于制作母片。

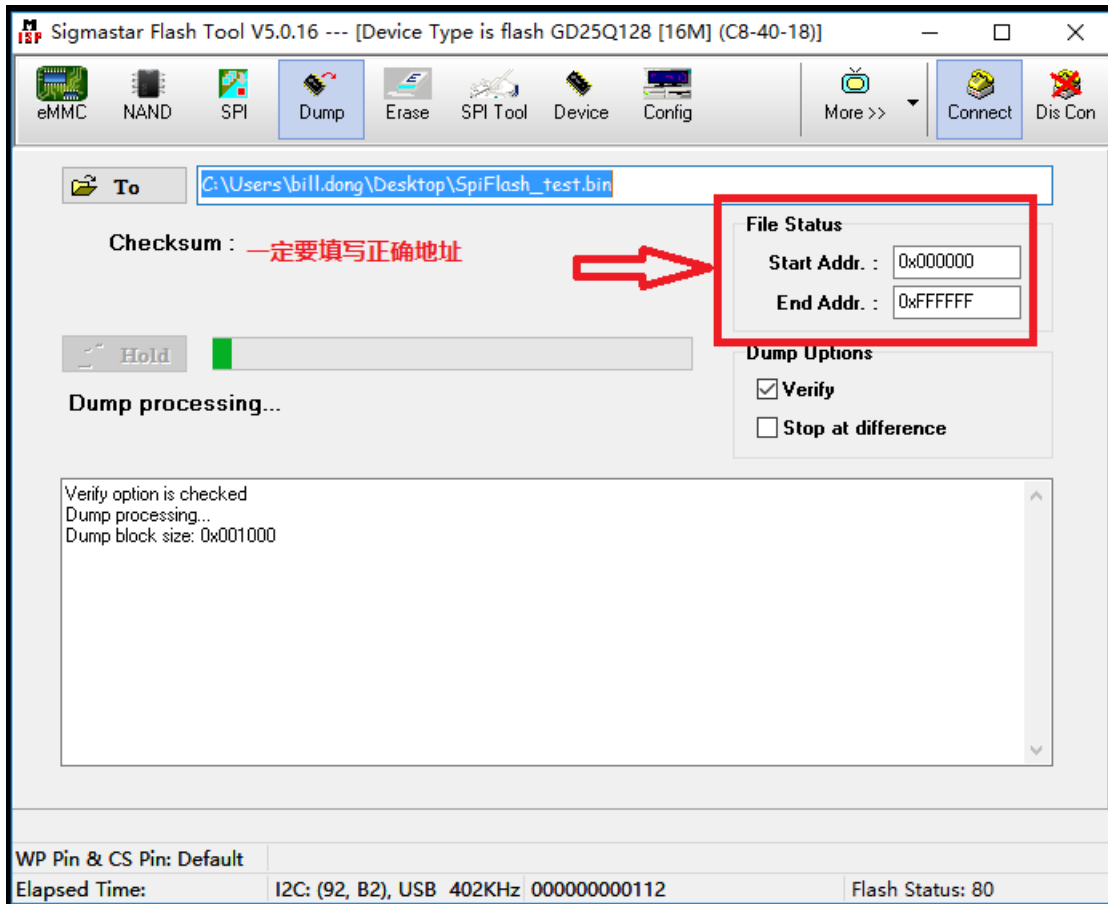
第一步：清除整个 FLASH，得到一个干净的 flash

假如 flash 里面有程序的情况下，进入 boot 界面输入“debug”关闭串口，同时断开串口连接软件，如下图：

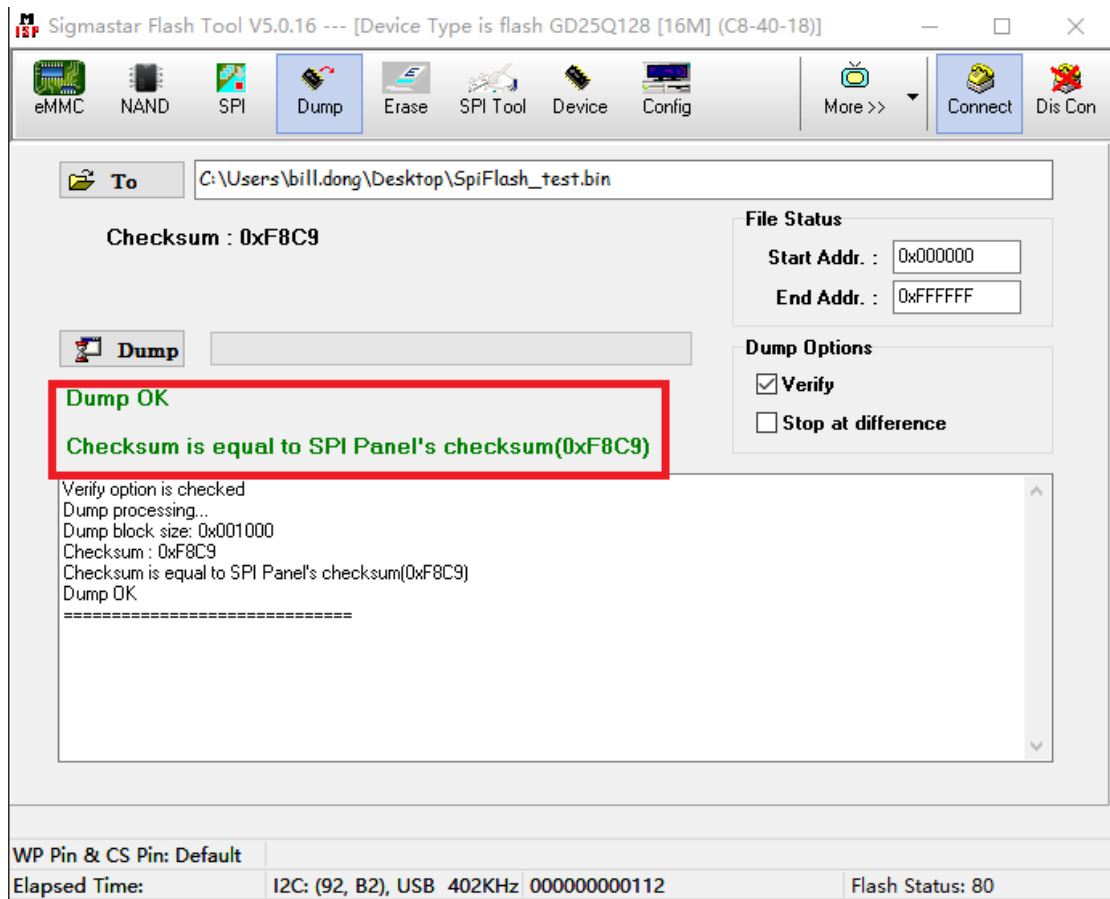


第三步，dump 整个 flash 数据

1. 点击 ISP TOOL 的“DIS Con”断开链接。
2. 板子断电，上电运行，确认正常运行之后。
3. 板子再断电上电进入 boot 界面输入“debug”关闭串口，同时断开串口连接软件。
4. 点击 ISP TOOL 的“Connect”重新连接，正常 connect，并正常识别 FLASH 之后，如下图，开始 dump



成功之后如下图:



第四步，验证母片是否正确

找一块空 flash 的板子，按照如下烧写整个母片，需要等待 12 分钟左右，然后看是否正常运行：

Sigmastar Flash Tool V5.0.16 --- [Device Type is flash GD25Q128 [16M] (C8-40-18)]

Image: C:\Users\bill.dong\Desktop\SpiFlash_test.bin

Checksum: 0xF8C9

Hex files: Unused Bytes: 0x00 0xFF

File Status: Start Addr.: 0x000000, End Addr.: 0x00FFFFFF

Buttons: Stop, << Less

Src: [2020/5/26 11:48:32]

00:50

```

Program Message : Programming at 0x0B0000
Verify Message : Verifying at 0x0B0000
Verify : Each time 001000 Bytes
Verify OK.
Erase Message : Erasing at 0x0C0000
Erase OK.
Program Message : Programming at 0x0C0000
Verify Message : Verifying at 0x0C0000
Verify : Each time 001000 Bytes
Verify OK.
Erase Message : Erasing at 0x0D0000
Erase OK.
Program Message : Programming at 0x0D0000
  
```

ReConnect
 Multi Flashes
 Block Run Flow
 Erase Device
 All Chip
 File Area
 Erase Area
 First 512 KBytes
 Partial Erase Setup
 Base shift at 0x00000000
 Chip Reset After Finish
 SpiFlash_X
 Flash_0 Flash_1 Flash_2 Flash_3

Blank
 HDCP Key HDCP... Key #:0
 Program
 Verify
 Exit ISP
 Type: SPINOR

Disable hot key
 Hot Key: Ctrl+R

WP Pin & CS Pin: Default

Elapsed Time: I2C: (92, B2), USB 402KHz 00000000112 Flash Status: 80

Sigmastar Flash Tool V5.0.16

Image: C:\Users\bill.dong\Desktop\SpiFlash_test.bin

Checksum: 0xF8C9

Hex files: Unused Bytes: 0x00 0xFF

File Status: Start Addr.: 0x000000, End Addr.: 0x00FFFFFF

Buttons: Run, << Less

Src: [2020/5/26 11:48:32]

Pass

```

Erase OK.
Program Message : Programming at 0xFF0000
Verify Message : Verifying at 0xFF0000
Verify : Each time 001000 Bytes
Verify OK.
[Important] Send the 0x31 & 0x01 command to change
status as 0x00.
Unblock Finished!
Block Run Flow Done.
End time: 12:31:32
[Important] Send the 0x31 & 0x01 command to change
status as 0x00.
Unblock Finished!
  
```

ReConnect
 Multi Flashes
 Block Run Flow
 Erase Device
 All Chip
 File Area
 Erase Area
 First 512 KBytes
 Partial Erase Setup
 Base shift at 0x00000000
 Chip Reset After Finish
 SpiFlash_X
 Flash_0 Flash_1 Flash_2 Flash_3

Blank
 HDCP Key HDCP... Key #:0
 Program
 Verify
 Exit ISP
 Type: SPINOR

Disable hot key
 Hot Key: Ctrl+R

WP Pin & CS Pin: Default

Elapsed Time: I2C: (92, B2), USB 402KHz 00000000112 Flash Status: 00