How to check if the content in FLASH is correct? – KBA225064

Question: How to check if the content in FLASH is correct?

Answer: In the design of FX3/CX3, SPI FLASH is frequently used to store firmware. Customer often faces the problem such as FX3/CX3 could not boot from FLASH. To check if the whether the firmware stored in FLASH is valid, FLASH reading/writing firmware could be used for troubleshooting.

The example project locates at C:\Program Files (x86)\Cypress\EZ-USB FX3 SDK\1.3\firmware\serialif_examples\cyfxusbspidmamode. Build and download the Img file into FX3 RAM. FX3 will enumerate as the bulkloop device.

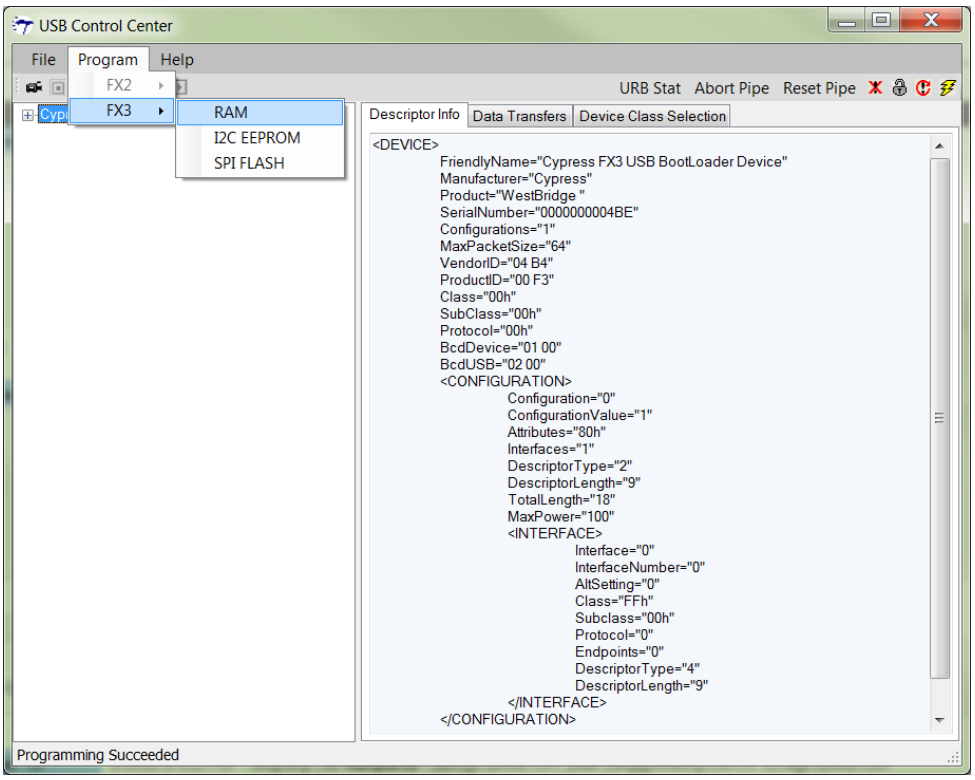

Fig.1 Download firmware into RAM

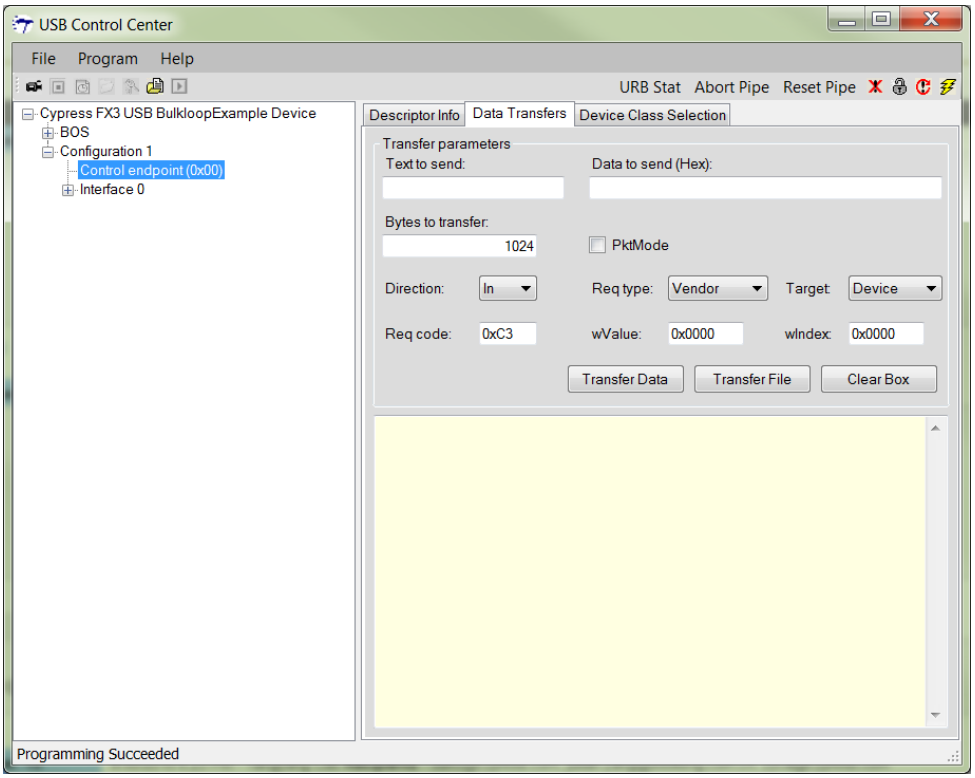

Fig.2 FX3 enumerates as Bulk loop device

Expand configuration 1, choose control endpoint, and fill the blanks in the right part of the panel. After that, click the button *Transfer Data*. This will issue the vendor command which read 1024 bytes from byte address 0.

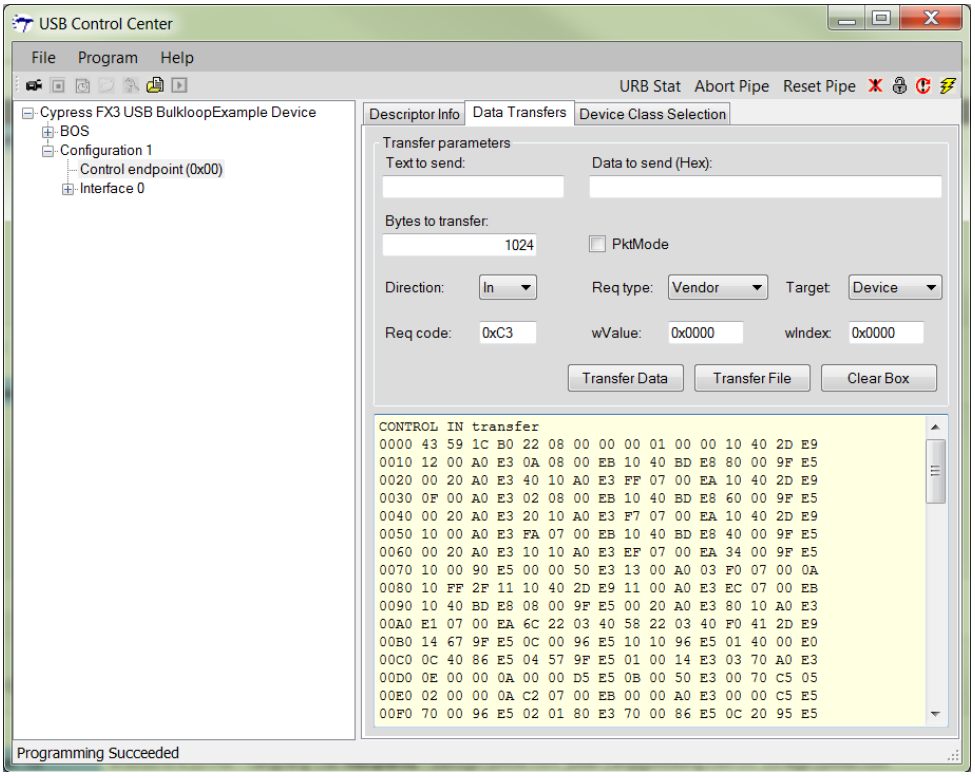

Fig.3 Read 1024 bytes from FLASH

Of course, the length of the reading data and the start address could be changed as required. For more information about this command, you could check the readme.txt in this project.

The data read back could be stored in a Hex file. After checking the content of entire FLASH, the data in FLASH could be compared with Hex editor to check if it is valid.