

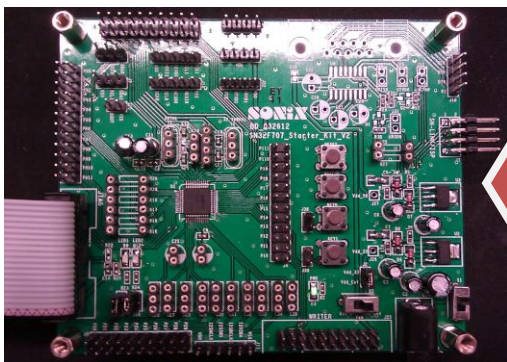
# SONiX SN-LINK ISP User Guide

V2.5

## 1 OVERVIEW

SN-Link is a debug tool used in Sonix cortex-M0 series chips. In this debug tool user can use such as breakpoint, single step, watch and memory functions in debug mode during development. There two kinds of chips on SN-link hardware, SN8F2288 and SN32F700, respectively. These two chips' firmware can be updated by ISP tool. The ISP tool operation will be described in the following section.

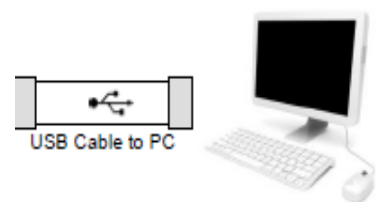
The ISP tool supports on many kinds of O.S such as WinXP, Vista, Win7. According these two chips on SN-Link hardware, there are two ISP methods which update each chip, respectively.



Sonix 32-bit Series Start-kit



SN-LINK



ISP Tool AP

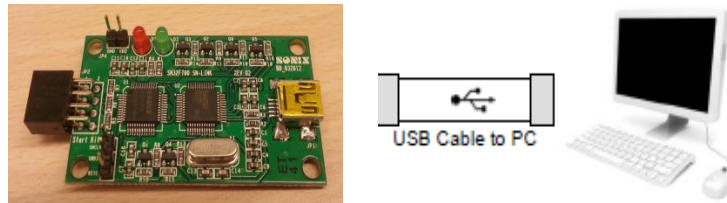
## 2 OPERATION

### 2.1 SN-LINK SN8F2288 ISP

Before using keil c download code to start kit, please install ICE DLL which file name is "SA1ARMCortexM0Tooling\_20130731\_V2.00.39.exe".

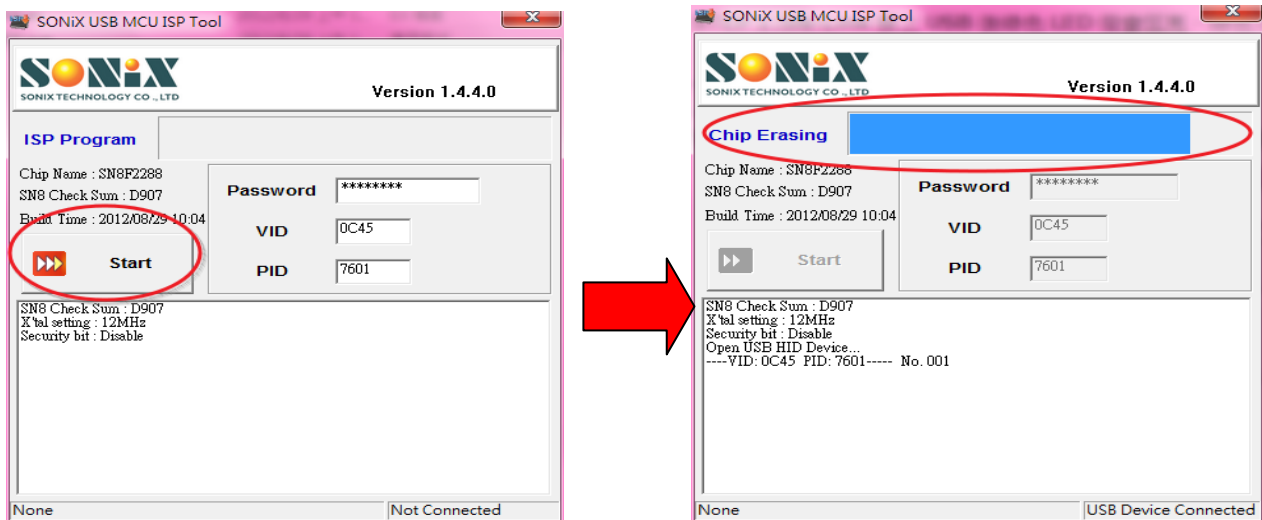
### 2.2 SN-LINK SN8F2288 ISP

SN-Link must be connected to PC through USB port. The following figure shows connection flow.

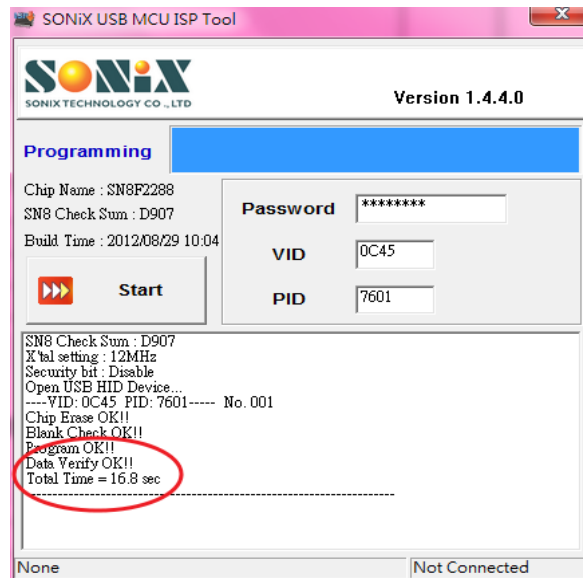


STEP 1: SN-Link connected to USB port on PC, the LED will light green color. This means that SN8F2288 has been detected.

STEP 2: Opening USB ISP Tool and click Start then SN8F2288 will be updated.



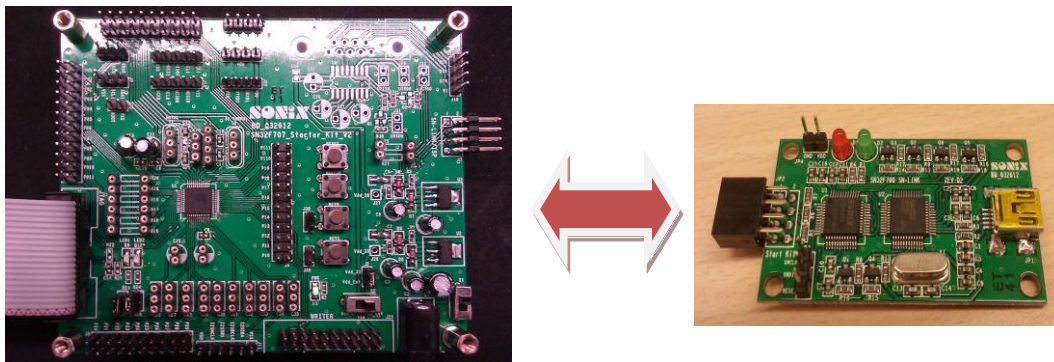
STEP 3: After ISP download finished, DATA verify OK and Total Time were be displayed.



STEP 4: when ISP download finished SN8F2288 must power-on reset.

## 2.3 SN-LINK SN32F700 ISP

Circuit connection:

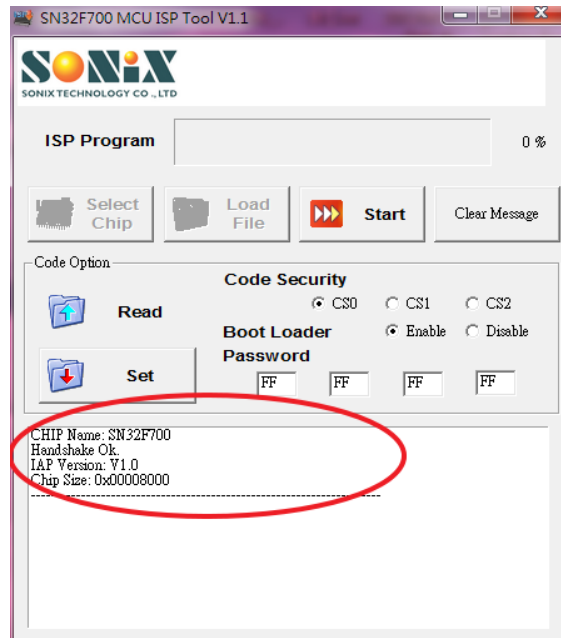


STEP 1 : SN-Link and start kit must be connected together. The Ex-reset IO on Start-kit tied to GND (In this document using SN32F700 start-kit. The Ex-reset P3.6 connected to GND). Then Start kit and SN-link must power-on reset that resulted SN32F700 which on SN-link will enter boot loader.

**\* NOTE \* SN-Link support SN32F700 and SN32F100 Start-Kit:**

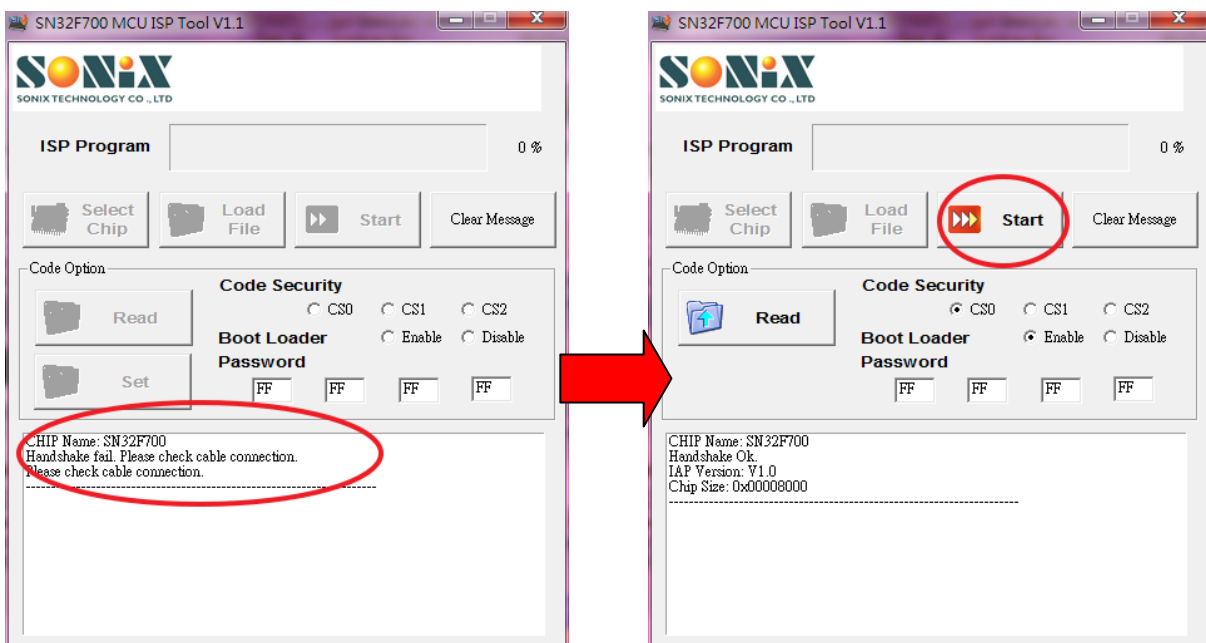
- 1. When using 32F700 Start-Kit and want to update SN-Link 32F700 firmware. Then P3.6 needs connect to GND and power on Start-Kit.**
- 2. When using 32F100 Start-Kit and want to update SN-Link 32F700 firmware. Then P0.15 needs to connect to GND and power on Start-Kit.**

STEP 2: First opening SN32700 ISP Tool. Then select SN32F707 chip and click OK.

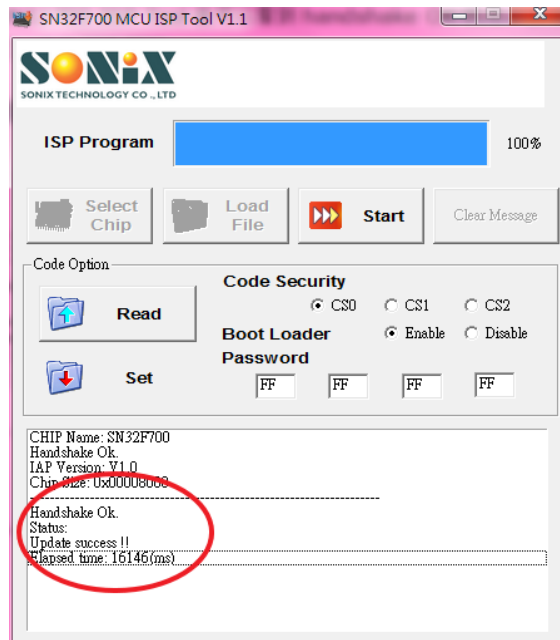


\* **NOTE** \* When opening SN32700 ISP Tool shows **Handshake fail** message then repeat step 1.

STEP 3: When opening SN32700 ISP Tool shows **Handshake OK** message this means SN32F700 firmware can be update via this tool. After click start, ISP updates beginning.



STEP 4: After ISP updates finished, it shows Update success message.



## 2.4 SN-LINK firmware version

After update SN8F2288 and SN32F700 via ISP tool, the firmware version is V04.06. If firmware version can't be read please power on reset SN-Link and start-kit.

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