User Manual v1

USB PD
FW Update Fixture
(For RT7880 Update)

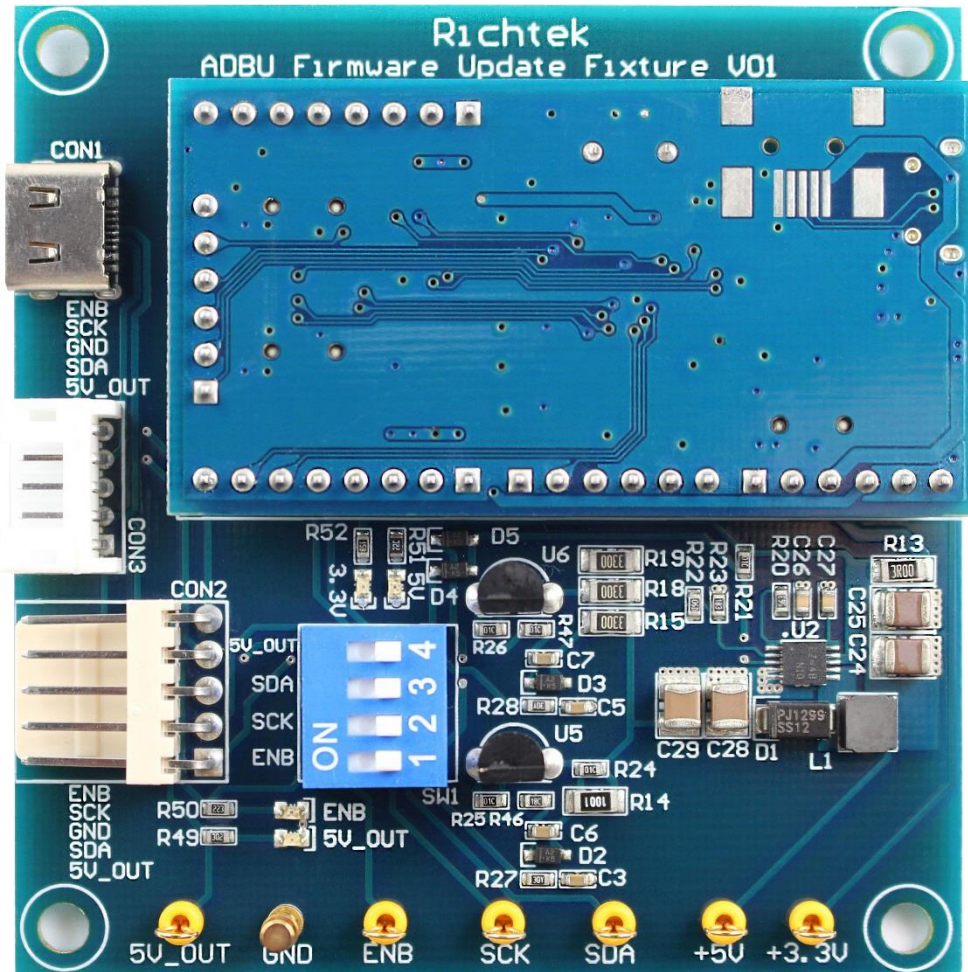**RICHTEK**
your power partner.

Table of Contents

1. RTUniversal Programming Tool Setup

Step 1. (If NB had installed it. Skip this step.)

- NB must install RTBridgeboardUtilitiesV137.exe (It can't use old version)
- The RTBridgeboardUtilitiesV137 is USB driver.
- RTBridgeboardUtilities download path :
  www.richtek.com/~/media/Design%20Tools/RTBridgeboardUtilities.ashx

Step 2. Decompressed file (First time use or ProgrammingTool Version update)
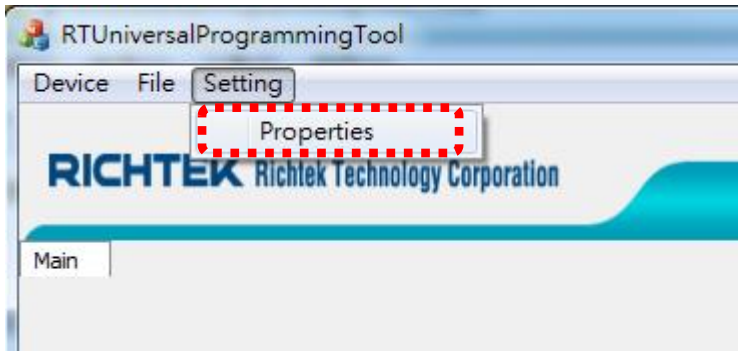
- The RTUniversalProgrammingTool is firmware programming software.
- RTUniversalProgrammingTool download path :
  www.richtek.com/~/media/Design%20Tools/RTUniversalProgrammingTool.ashx
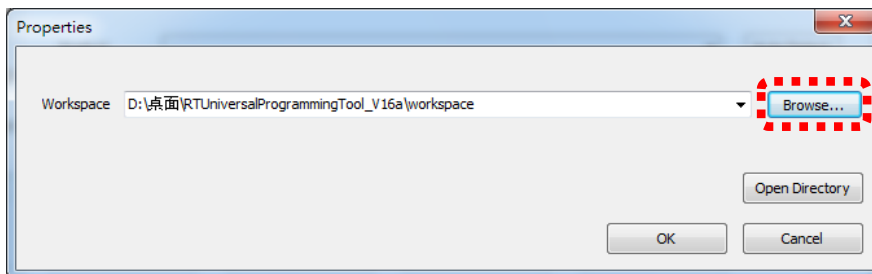- Decompressed RTUniversalProgrammingTool file

Step 3.

- Execute RTUniversalProgrammingTool.exe

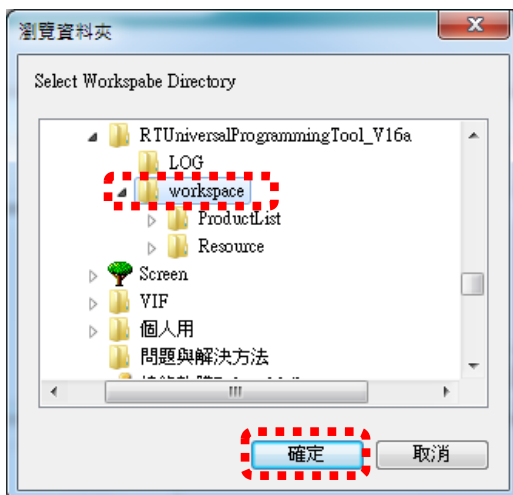### Step 4. Set Workspece (First time use or ProgrammingTool Version update)

- Execute Setting Properties

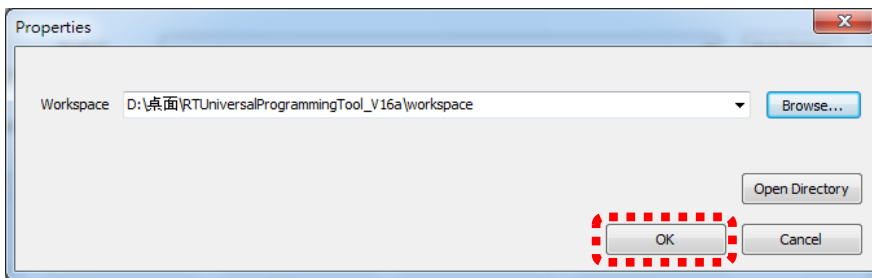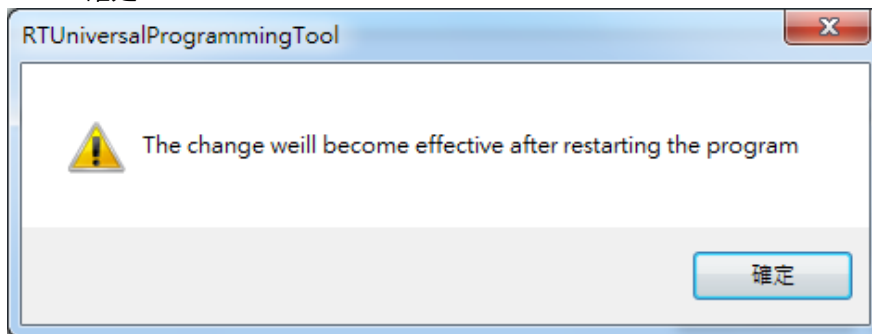- Set up Workspace folder. Press Browse…

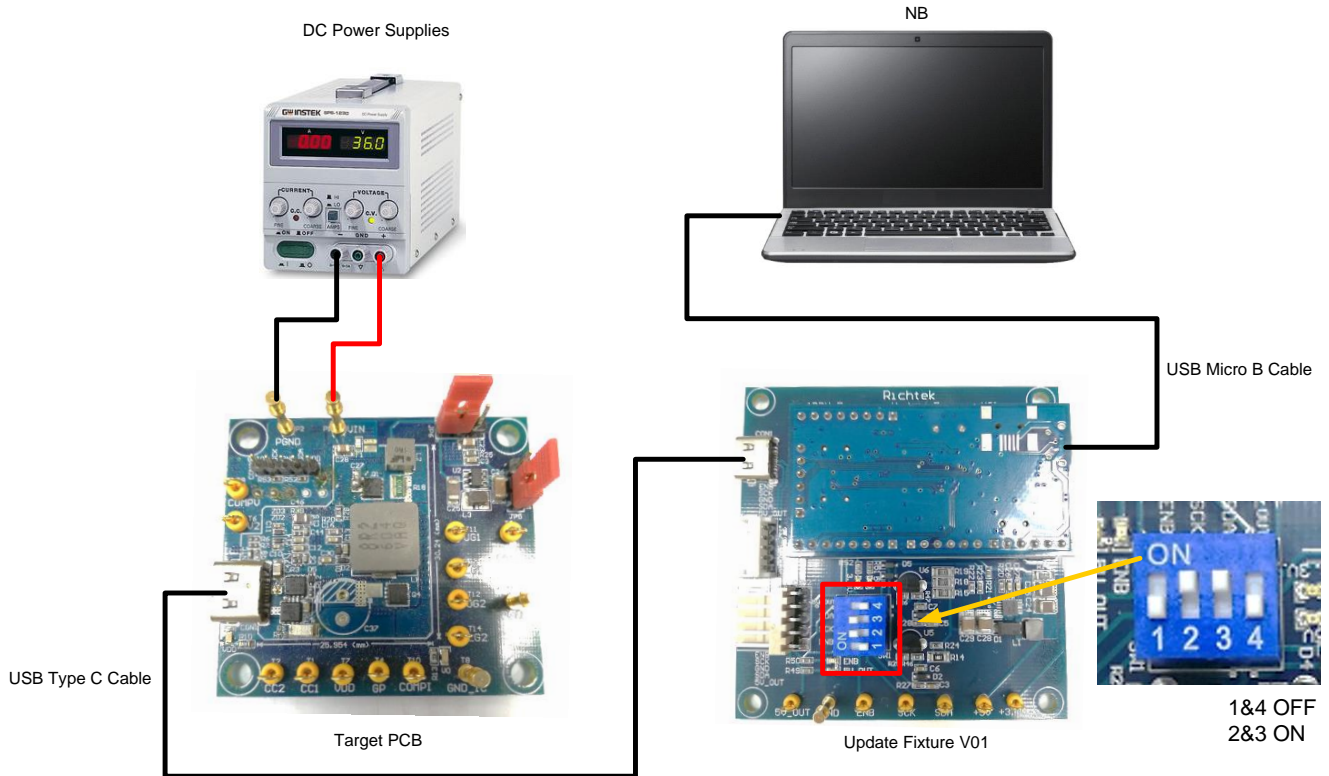- Fine the current version Workspace and Press 確定.

- Press OK

- Press 確定.

- Close RTUniversalProgrammingTool
- Rerun RTUniversalProgrammingTool

2. Programming Environment Setup

Programming Environment Architecture Diagram (Photo is an example)

DC Power Supplies

NB

USB Micro B Cable

USB Type C Cable

Target PCB

Update Fixture V01

1&4 OFF
2&3 ON

3. RT7880 I²C OnLineUpdate Program

Step 1.
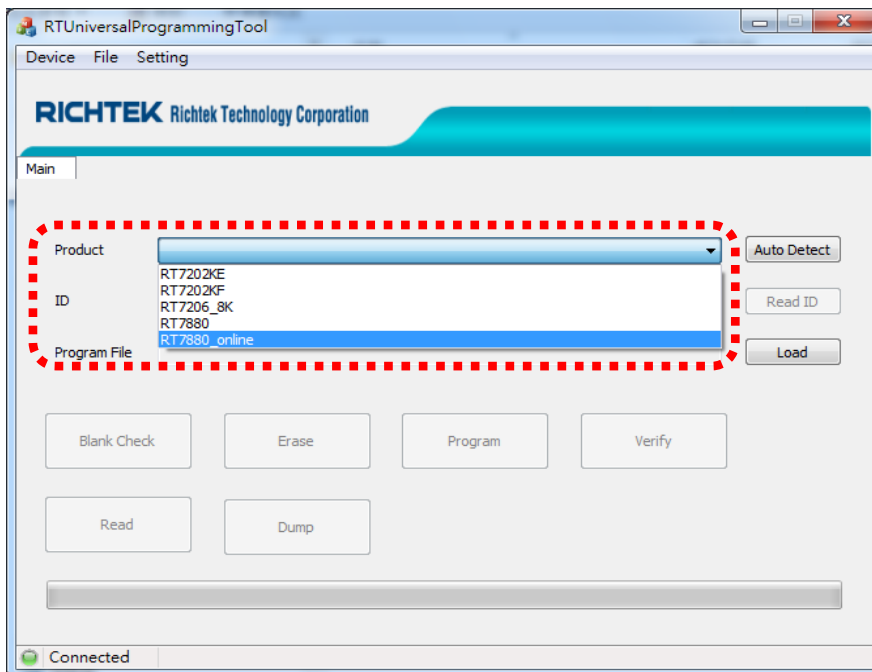
- Target PCB connect to Update Fixture V01
- Target PCB Power On
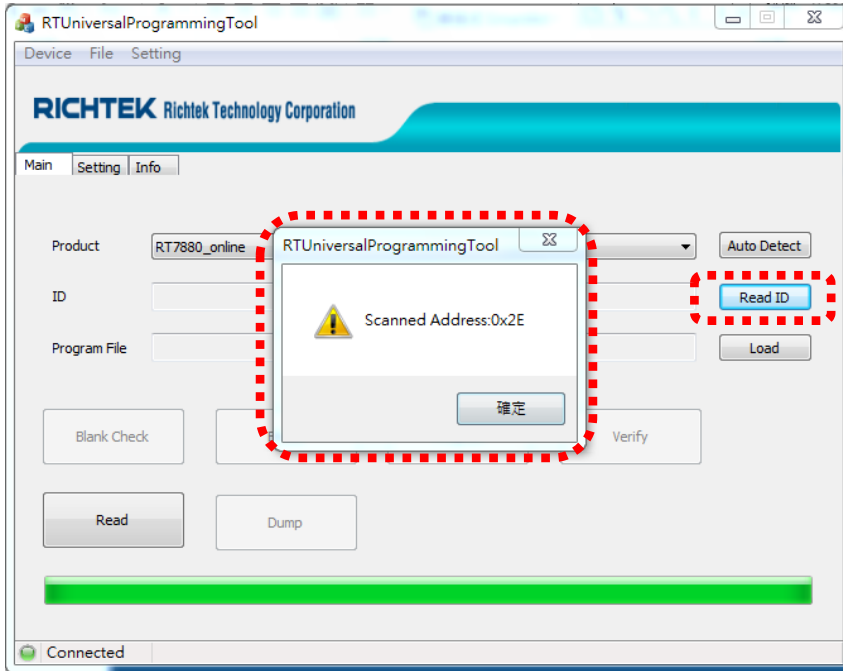
Step 2.

- Run RTUniversalProgrammingTool.exe
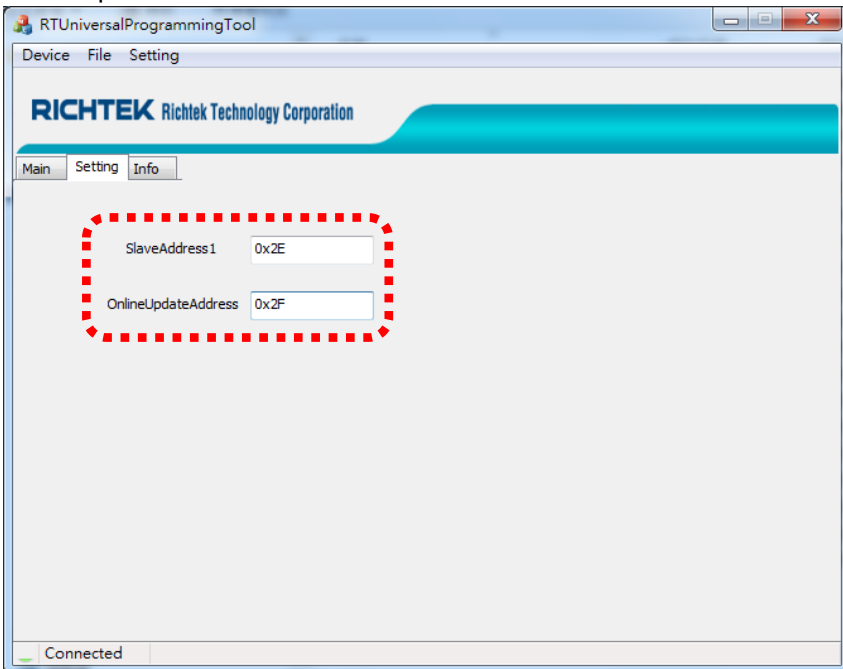
Step 3.

- Product select RT7880_online

Step 4. Scanned Address

- Press Read ID (Programming tool will get update address)
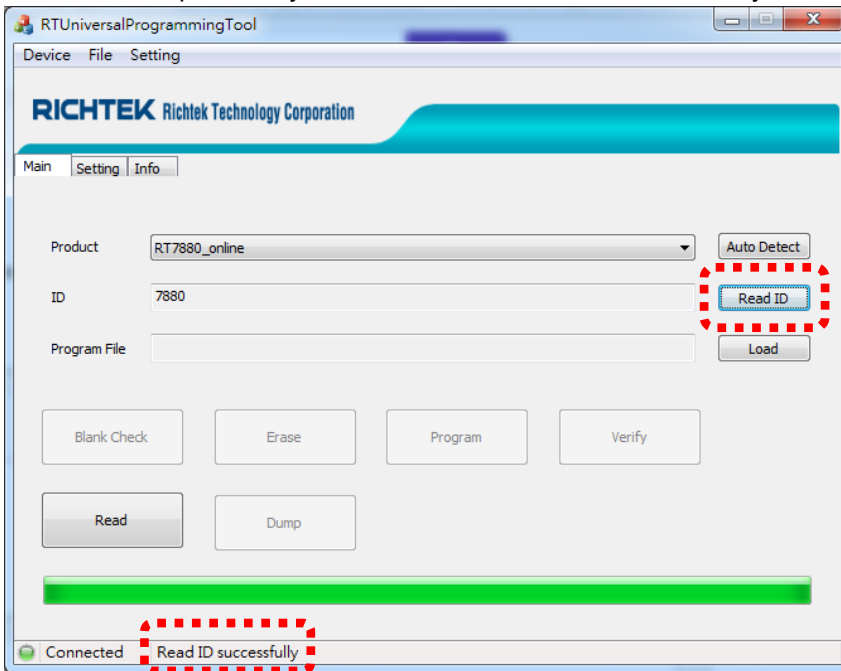

Step 5. Setting Address

- Key in Scanned Address : 0x2E into SlaveAddress1 field
- OnlineUpdateAddress field = SlaveAddress1 value + 1

Step 6.

- Press Read ID
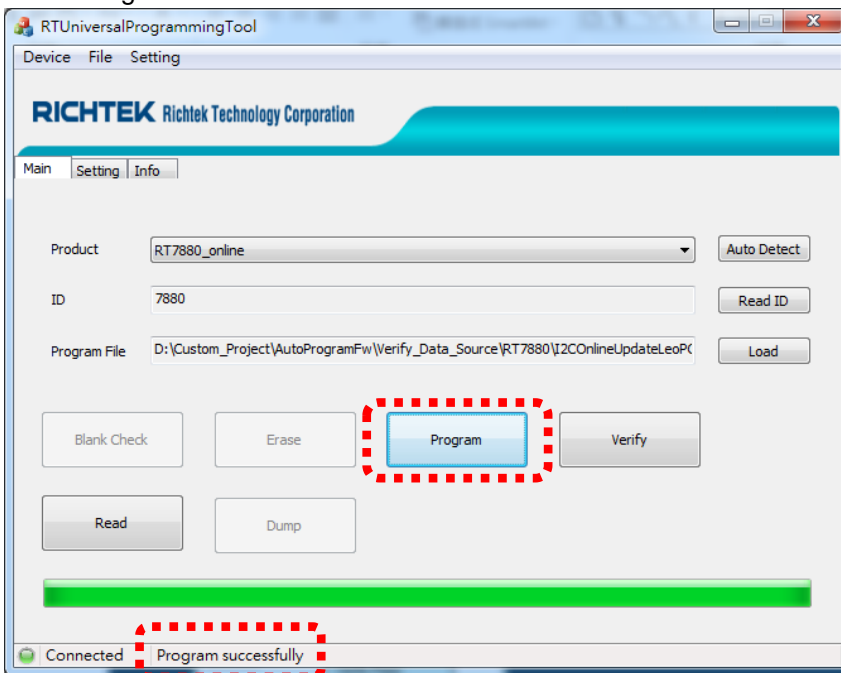- If address setup correctly. Tool notification "Read ID successfully"

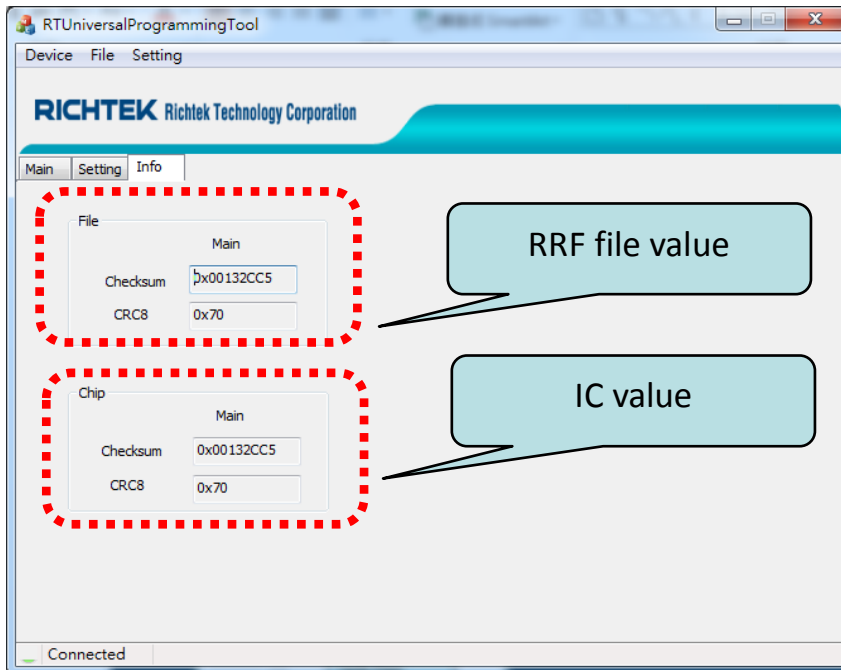## Step 7. Load RRF file

- Press Load to load rrf file

Step 8.

- Press Program

Step 9.

- Switch to Info sheet show File/Chip Checksum and CRC8 value

- Note : If SlaveAddress1 and OnlineUpdateAddress setting are correctly. Step 4. ~ 6. can be ignored.
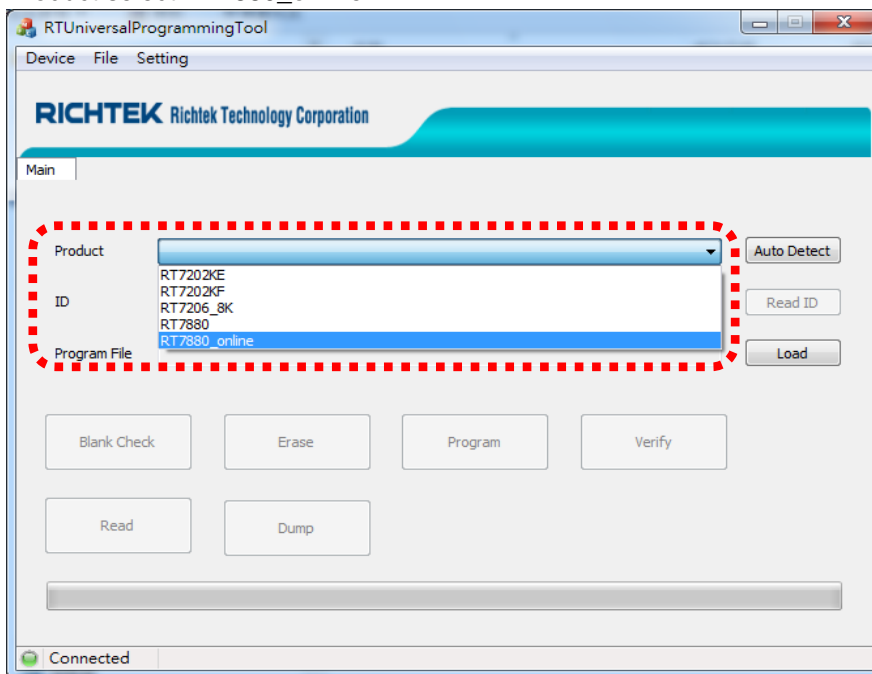
4. RT7880 I^{2}C OnLineUpdate Verify

Step 1.

- Target PCB connect to Update Fixture V01
- Target PCB Power On
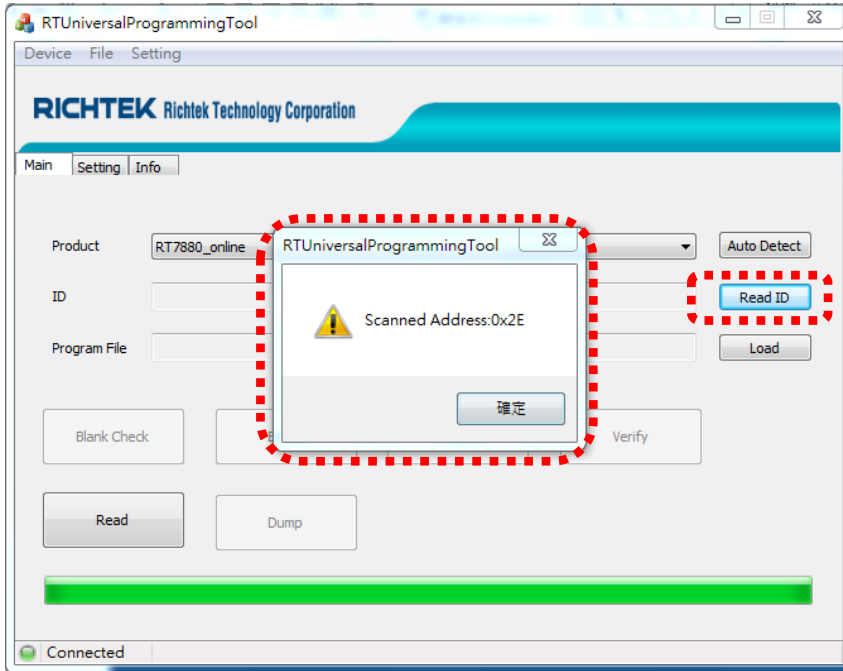
Step 2.

- Run RTUniversalProgrammingTool.exe

Step 3.

- Product select RT7880_online
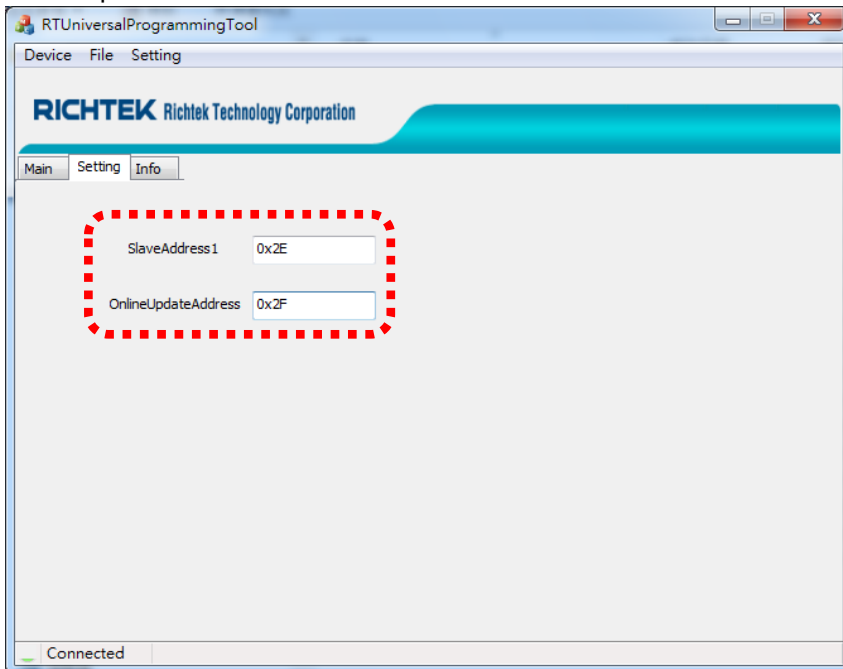
Step 4. Scanned Address
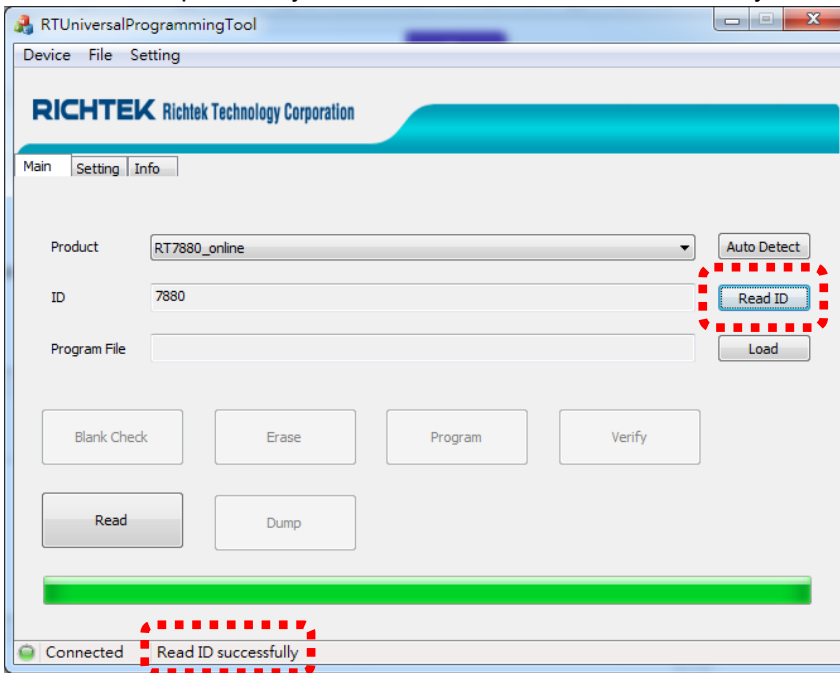
- Press Read ID (Programming tool will get update address)

Step 5. Setting Address

- Key in Scanned Address : 0x2E into SlaveAddress1 field
- OnlineUpdateAddress field = SlaveAddress1 value + 1

Step 6.

- Press Read ID
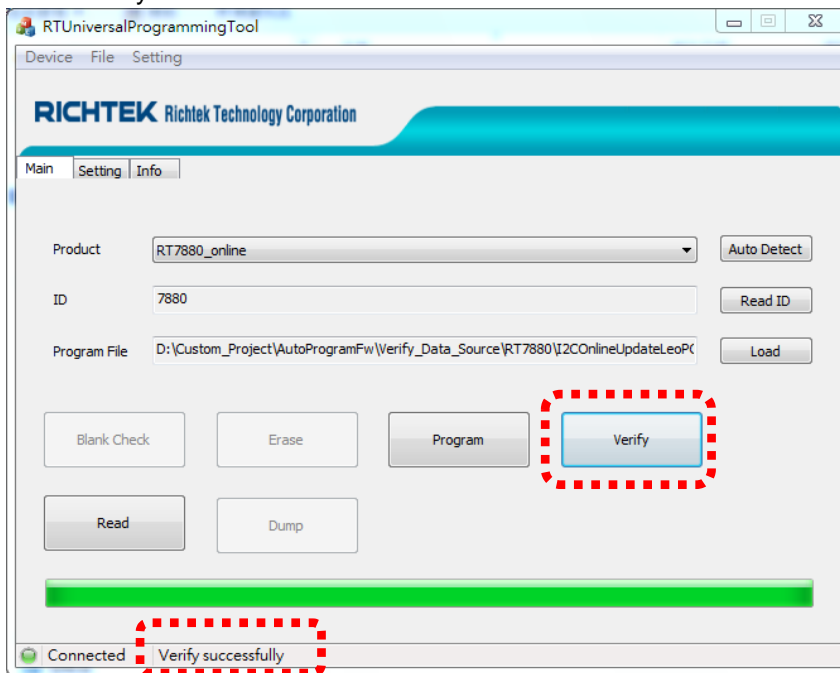- If address setup correctly. Tool notification "Read ID successfully"

Step 7. Load RRF file
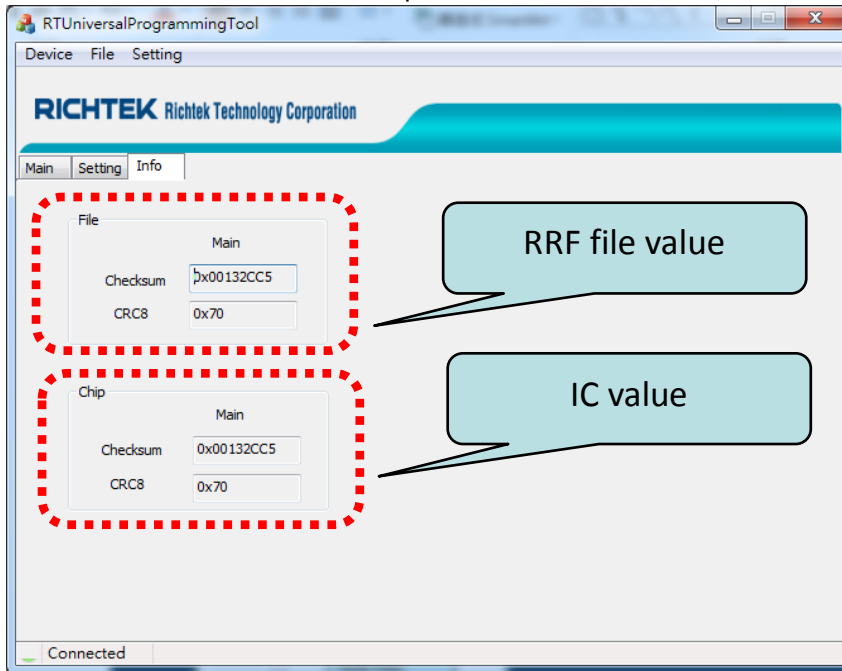
- Press Load to load rrf file

Step 8.

- Press Verify

Step 9.

● Switch to Info sheet show File/Chip Checksum and CRC8 value

● Note : If SlaveAddress1 and OnlineUpdateAddress setting are correctly. Step 4. ~ 6. can be ignored.

More Information

For more information, please find the related datasheet or application notes from Richtek website http://www.richtek.com.

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