

UM

PTN3460 FoA EDID Updater User's Manual

Rev. 1.0 - 3/23/12

Document information

Info	Content
Keywords	PTN3460, DisplayPort, eDP, LVDS, bridge, DOS utility
Abstract	This document describes the user manual of PTN3460 DOS utility which is the supporting software tool for the DisplayPort to LVDS bridge application board (nicknamed "DPLVDS1")

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Revision history

Rev	Date	Description
1.0	03/22/12	Release

1. Introduction

The PTN3460 FoA EDID updater allows user to program EDID and configuration register data to PTN3460 through DisplayPort AUX channel under Windows operation system.

The PTN3460 FoA EDID updater package includes following files

- **EDID Updater.BAT**
The EDID Updater.BAT is used for launching FoA EDID Updater application program (flashaux.exe) to update EDID/configuration register data file into PTN3460.
- **flashaux.exe**
It is the FoA EDID Updater main program.
- **nxpaux.dll**
It is the NXP DisplayPort driver.
- **CONFIG_4K.BIN**
The standard PTN3460 EDID and configuration bin file.
- **EMUN_OFF_4K.BIN**
The EDID emulation off configuration bin file.
- **HxD.exe**
The EDID and configuration bin file editor.
- **PTN3460_FoA_EDID_UM_V1.0_20120322.docx**
This user manual.

2. Operation

2.1. Edit EDID Updater.BAT

The EDID Updater.BAT includes default command line as below

flashaux /E CONFIG_4K.BIN ; Use for to program configuration file into PTN3460

You can edit EDID Updater.BAT to include different configuration file such as

flashaux /E EMU_OFF_4K.BIN EX ; Use for to program EDID emulation off configuration file into PTN3460

2.2. Create & Edit EDID and configuration bin file

The EDID and configuration bin file is 4K bytes long which first 1K bytes including 7 EDID (128 x 7 bytes) and 128 byte configuration bytes and following 3K bytes should be filling in all 0xff.

There are several tools available for editing configuration bin file. The easiest way to use a hex editor such as HxD to edit configuration file.

Following steps show how to prepare a PTN3460 configuration file using HxD.

- 1) Copy an existing configuration file (such as CONFIG_4K.BIN) and rename the copy to a name (such as EMU_OFF_4K.BIN) that makes sense for the new configuration.
- 2) Open EMU_OFF_4K.BIN file and edit 7 EDID (first 128 x 7 bytes) and configuration bytes (byte 0x0380 – 0x03ff) using a hex editor (HxD).
- 3) The register 0x0384 default value is 0x07 which means EDID emulation is on, shown in below figure.

Note 1: Please reference to “AN11128 PTN3460 Programming Guide” for configuration bytes definition.

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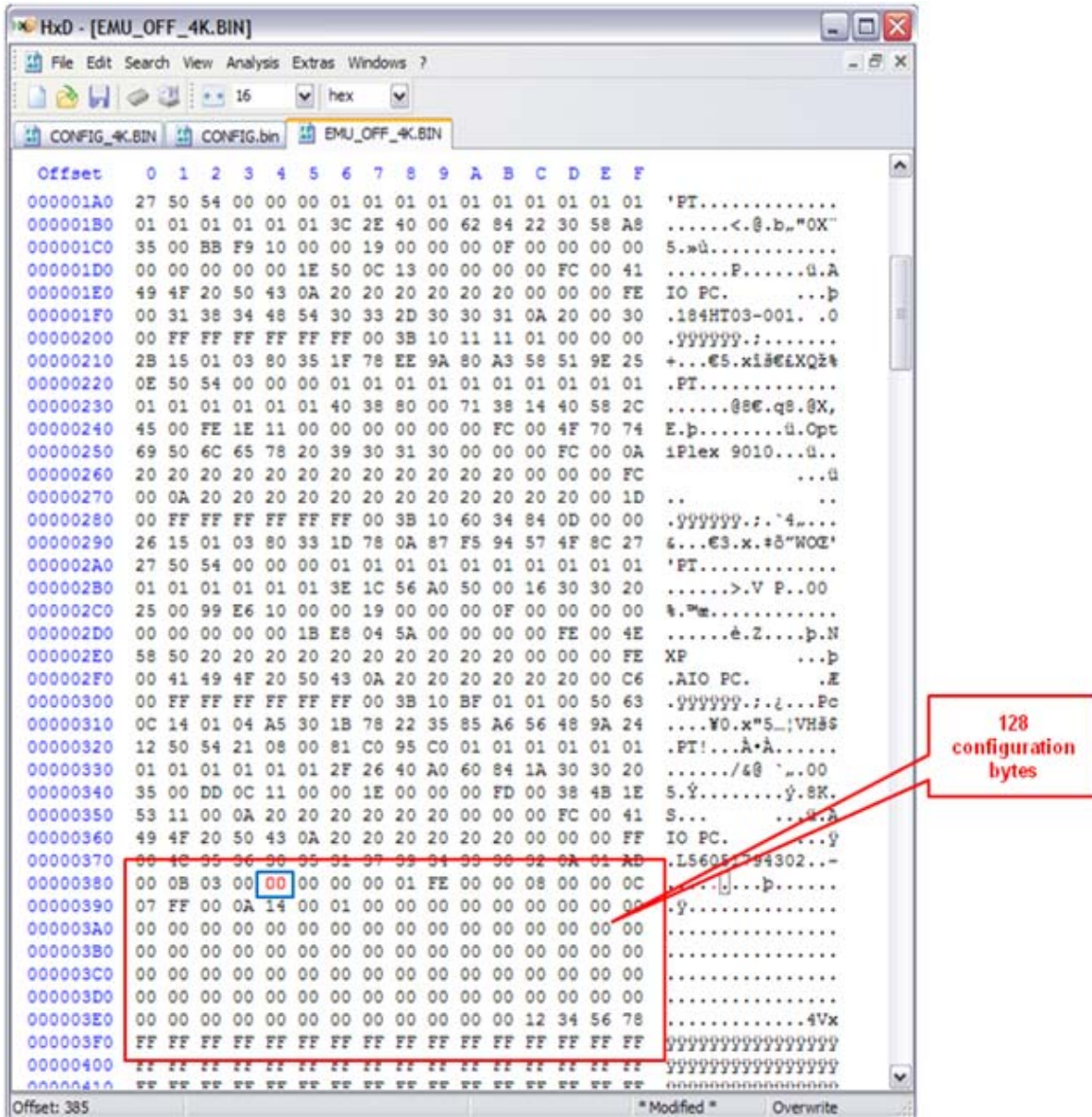
```
HxD - [EMU_OFF_4K.BIN]
File Edit Search View Analysis Extras Windows ?
16 hex
CONFIG_4K.BIN CONFIG.bin EMU_OFF_4K.BIN

Offset 0 1 2 3 4 5 6 7 8 9 A B C D E F
000001A0 27 50 54 00 00 00 01 01 01 01 01 01 01 01 01 01 'PT.....
000001B0 01 01 01 01 01 01 01 3C 2E 40 00 62 84 22 30 58 A8 .....<.@.b."OX"
000001C0 35 00 BB F9 10 00 00 19 00 00 00 0F 00 00 00 00 S.»ù.....
000001D0 00 00 00 00 00 1E 50 0C 13 00 00 00 00 FC 00 41 .....P.....ù.A
000001E0 49 4F 20 50 43 0A 20 20 20 20 20 20 20 00 00 FE IO PC. ...p
000001F0 00 31 38 34 48 54 30 33 2D 30 30 31 0A 20 00 30 .184HT03-001. .0
00000200 00 FF FF FF FF FF FF 00 3B 10 11 11 01 00 00 00 .YYYYYY.;.....
00000210 2B 15 01 03 80 35 1F 78 EE 9A 80 A3 58 51 9E 25 +...€5.xi§€iXQèè
00000220 0E 50 54 00 00 00 01 01 01 01 01 01 01 01 01 01 .PT.....
00000230 01 01 01 01 01 01 40 38 80 00 71 38 14 40 58 2C .....@8€.q8.@X,
00000240 45 00 FE 1E 11 00 00 00 00 00 FC 00 4F 70 74 E.p.....ù.Opt
00000250 69 50 6C 65 78 20 39 30 31 30 00 00 00 FC 00 0A iPlex 9010...ù.
00000260 20 20 20 20 20 20 20 20 20 20 20 20 20 00 00 FC ...ù
00000270 00 0A 20 20 20 20 20 20 20 20 20 20 20 20 00 1D ..
00000280 00 FF FF FF FF FF FF 00 3B 10 60 34 84 0D 00 00 .YYYYYY.;.'4....
00000290 26 15 01 03 80 33 1D 78 0A 87 F5 94 57 4F 8C 27 &...€3.x.#ð"WOE'
000002A0 27 50 54 00 00 00 01 01 01 01 01 01 01 01 01 01 'PT.....
000002B0 01 01 01 01 01 01 3E 1C 56 A0 50 00 16 30 30 20 .....>.V P..00
000002C0 25 00 99 E6 10 00 00 19 00 00 00 0F 00 00 00 00 %."m.....
000002D0 00 00 00 00 00 1B E8 04 5A 00 00 00 00 FE 00 4E .....è.2....p.N
000002E0 58 50 20 20 20 20 20 20 20 20 20 20 20 00 00 FE XP ...p
000002F0 00 41 49 4F 20 50 43 0A 20 20 20 20 20 20 00 C6 .AIO PC. .E
00000300 00 FF FF FF FF FF FF 00 3B 10 BF 01 01 00 50 63 .YYYYYY.;.¿...Pc
00000310 0C 14 01 04 A5 30 1B 78 22 35 85 A6 56 48 9A 24 ...W0.x"5...|VH$S
00000320 12 50 54 21 08 00 81 C0 95 C0 01 01 01 01 01 01 .PT!...À•À.....
00000330 01 01 01 01 01 01 2F 26 40 A0 60 84 1A 30 30 20 ...../4@ `..00
00000340 35 00 DD 0C 11 00 00 1E 00 00 00 FD 00 38 4B 1E 5.Ý.....ý.8K.
00000350 53 11 00 0A 20 20 20 20 20 20 20 00 00 FC 00 41 S... ..ù.À
00000360 49 4F 20 50 43 0A 20 20 20 20 20 20 00 00 FF IO PC. ...p
00000370 00 4C 33 38 30 33 31 37 39 34 33 30 32 0A 01 AD .L56051784302..-
00000380 00 0B 03 00 07 00 00 00 01 FE 00 00 08 00 00 0C .....p.....
00000390 07 FF 00 0A 14 00 01 00 00 00 00 00 00 00 00 00 y.....
000003A0 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 .....
000003B0 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 .....
000003C0 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 .....
000003D0 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 .....
000003E0 00 00 00 00 00 00 00 00 00 00 00 00 12 34 56 78 .....4Vx
000003F0 FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF YYYYYYYYYYYYYYYYYY
00000400 FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF YYYYYYYYYYYYYYYYYY
00000410 FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF 0000000000000000

Offset: 0 Overwrite
```

128 configuration bytes

- 4) Modify register 0x0384 = 0x00 which means disabling EDID emulation, shown in below figure.



- 5) Save EMU_OFF_4K.BIN, and it's ready to be used with flashaux.exe for disabling PTN3460 EDID emulation function
- 6) Run EDID Updater.BAT to update EMU_OFF_4K.BIN into PTN3460.

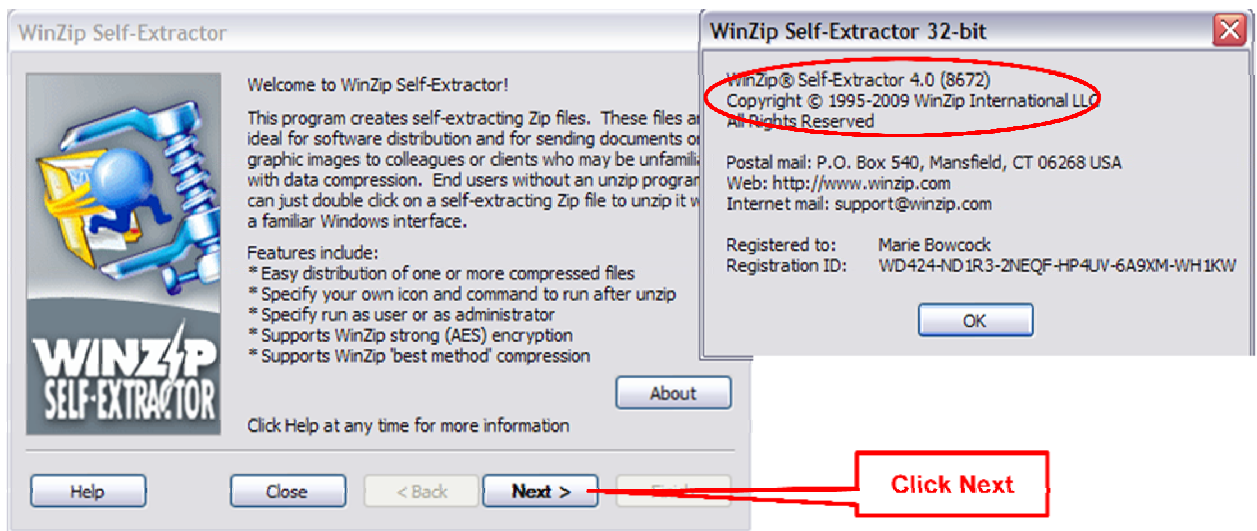
3. Making a self-extracting FoA EDID Updater Program

3.1. ZIP the following files into a ZIP file such as PTN3460 EDID Updater.zip.

- EDID Updater.BAT
- flashaux.exe
- nxpaux.dll
- CONFIG_4K.BIN

3.2. Use Winzip Self-Extractor 4.0 to make a self-extracting FoA EDID updater as following steps.

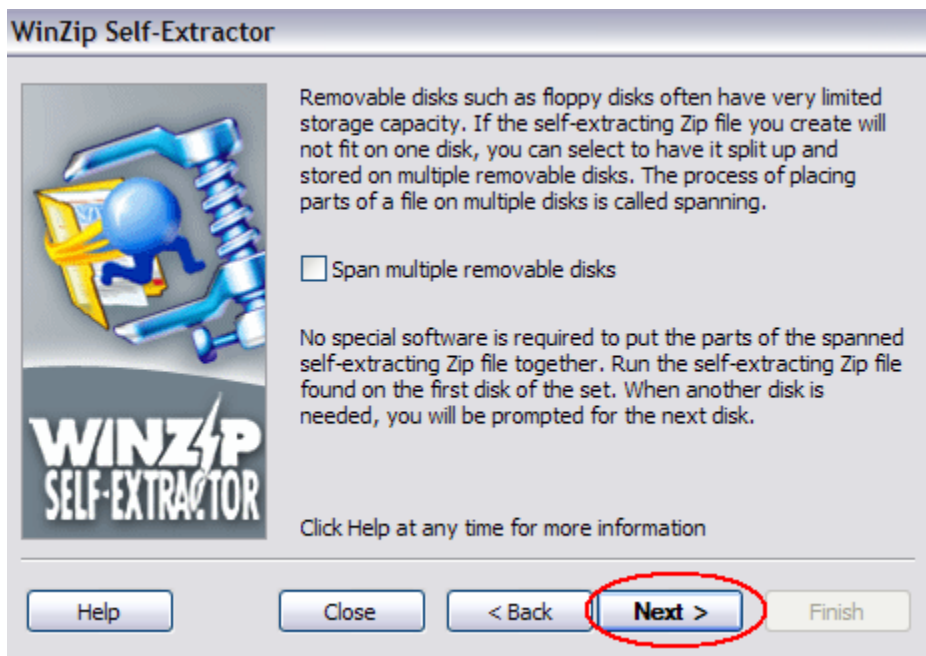
1) Run Winzip Self-Extractor 4.0 and click Next



- 2) Select "Self-extracting Zip file for Software Installation" and click Next.



- 3) Click Next again.



- 4) Locate "PTN3460 EDID Updater.zip" file and click Next.



- 5) Click Next



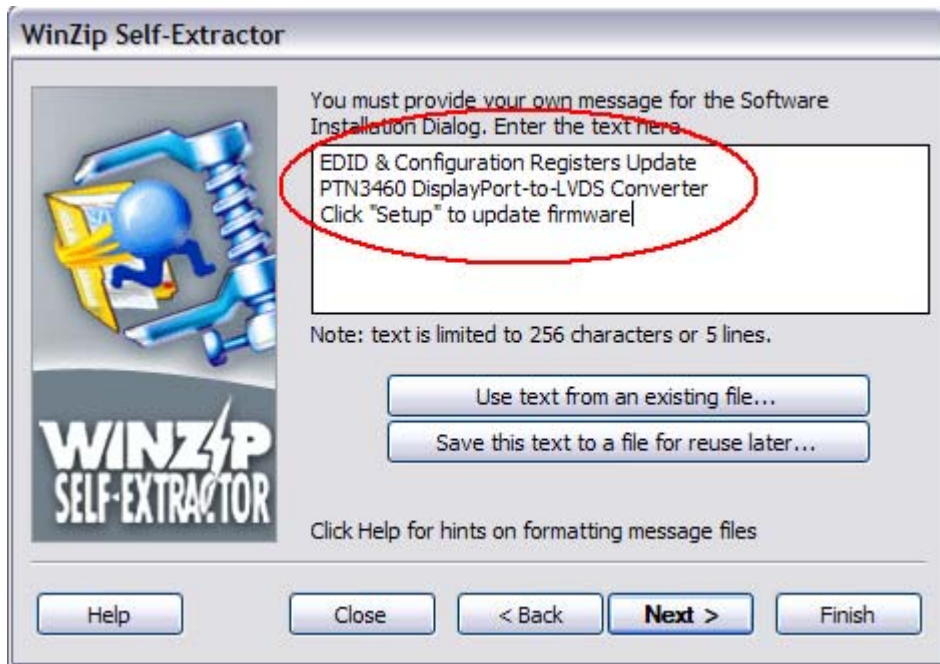
- 6) Select "Run as user" and Click Next



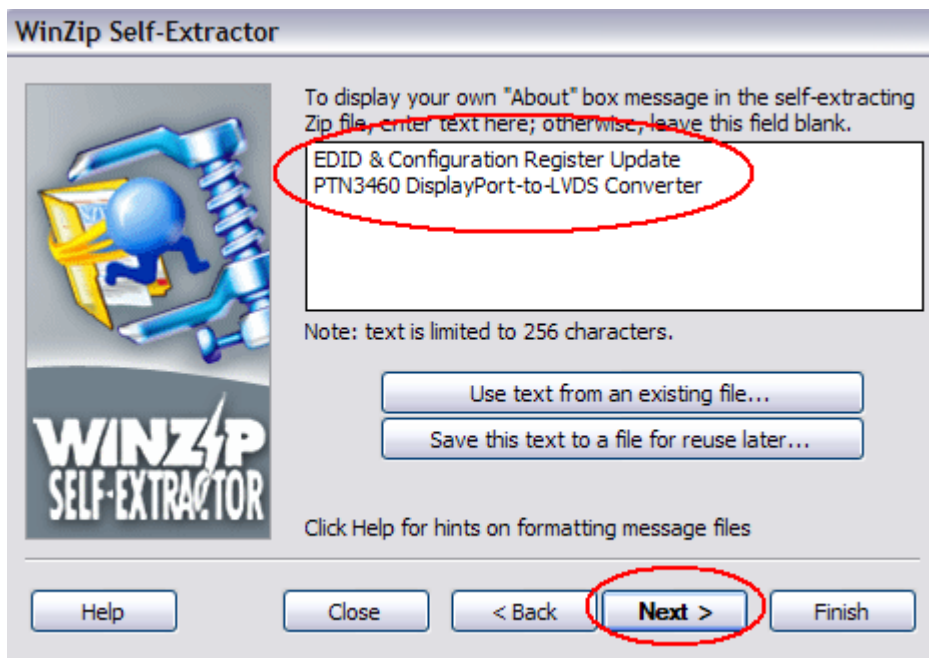
- 7) Input the "EDID Updater.BAT" and click Next.



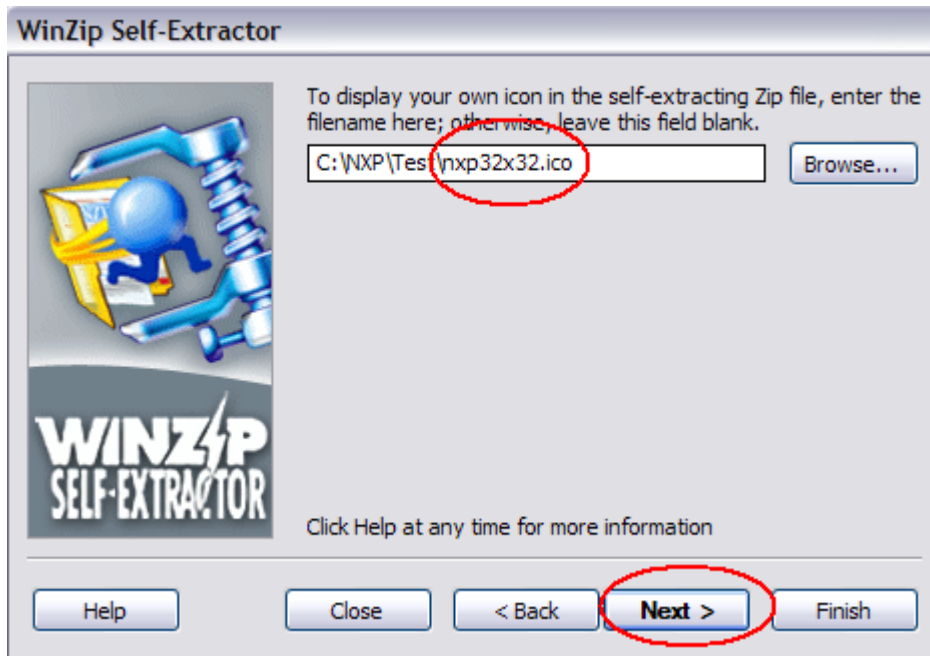
- 8) Input the installation message and click Next



- 9) Input "About" information and click Next



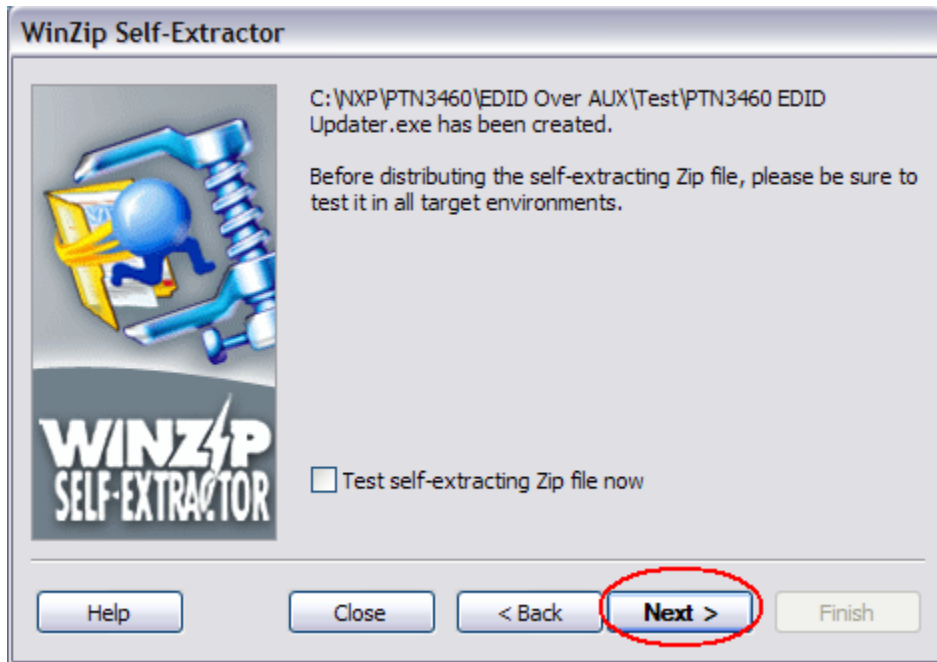
10) Locate NXP icon file and click Next.



11) Click Next.



12) Click Next



13) Select "No, I am finished" and click Exit.



- 14) Run "PTN3460 EDID Updater.exe" which is created by Winzip Self-Extractor 4.0 to update EDID and configuration bytes into PTN3460 as figure shown in below.

