



Dolphin MXH530 NTB Adapter Firmware Release Note

31st January 2025

Version 1.0

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1 Introduction

This release note covers the MXH530 PCIe 5.0 x16 NTB Adapter card firmware. The firmware consists of PFX configuration data and Management processor firmware (NXP config). This release note contains a summary of the changes made. Please contact Dolphin for details.

1.1 Supported topologies

The latest released firmware supports the following NTB / Hot-Add configurations

- Dual Host x16 Host
- Three Host x8
- Five Hosts x4
- Single NTB Hot-Add x16 Host
- Dual NTB Hot-Add x8 Host
- Quad NTB Hot-Add x4 Host

The eXpressWare release notes provide additional information on supported topologies and functionalities. Please note that 3 and 5-node NTB use cases require a minimum of eXpressWare 5.23.

1.2 Firmware versions

The Firmware version covers the MXH930 NXP firmware changes.

Firmware version	Release date	Note
2	January 20 th , 2025	Initial MXH530 PFX configuration images Bundled with eXpressWare 5.23.0

1.3 PFX FLASH Versions

The PFX version changelog. Please note that the Dolphin software tools report the PFX FLASH version as the EEPROM version.

PFX Multiconfig version	Release date	Note
3.3	January 20 th , 2025	Adds MXH530 support Bundled with eXpressWare 5.23.0

2 Appendix

2.1 How to check Firmware and EEPROM version

The version of the firmware components can be retrieved using the **dis_diag** tool. This information is available by installing eXpressWare 5.23 or newer. Please see options using **-h** option. This software is available for both Windows and Linux.

2.1.1 Linux platforms

```
# cd /opt/DIS/sbin
# ./dis_diag
```

2.1.2 Windows platforms

```
> cd %ProgramFiles%\Dolphin Express MX\Util
> .\dis_diag
```

2.1.3 Example output

```
# dis_diag
=====
Dolphin diagnostic tool -- dis_diag version 5.23.0 (Mon Oct 12 16:44:17 CET 2020)
=====
dis_diag compiled in 64-bit mode
Driver: Dolphin IRM (GX) 5.23.0 Oct 24th, 2024 (rev 33fff3a)
Date : Mon Oct 12 12:59:28 CET 2024
System: Linux somenode 3.10.0-514.21.1.el7.x86_64 #1 SMP Thu Oct 12 17:04:51 UTC 2024
x86_64 x86_64 x86_64 GNU/Linux
```

Number of configured local adapters found: 1

```
Adapter 0 > Type           : MXH530
           Mode           : NTB
           NodeId         : 4
           Serial number  : MXH530-AC-000015
           MXH chip family : MICROCHIP - PFX GEN5
           MXH chip vendorId : 0x11f8
           MXH chip device  : 0x4036
           MXH chip revision : 0x0 (ZA)
           EEPROM version   : 3.3
           EEPROM vendor info : 0x0000
           Firmware version : 2
           Card revision    : AC
```

2.2 How to upgrade the firmware

The firmware can be upgraded using the **upgrade_eeprom** utility bundled with eXpressWare.

2.2.1 Linux platforms

```
# cd /opt/DIS/sbin
# ./upgrade_eeprom.sh --upgrade
```

2.2.2 Windows platforms

Start PowerShell with administrative capabilities (Press Windows+X, select Windows PowerShell (Admin))

```
PS > cd "${env:ProgramFiles}\Dolphin Express MX\Util"
PS > Set-ExecutionPolicy AllSigned -Scope Process
PS > .\upgrade_eeprom.ps1 --upgrade
```

Please carefully review the output from the upgrade utility.

A complete system power cycle (including AuxPower removal) is required. Please verify that the firmware upgrade was successful after the system is powered on again following the steps found in the section. 2.1 How to check Firmware and EEPROM version above.

2.3 How to contact Dolphin Support

For support, please contact Dolphin via the Jira Service Management portal: www.dolphinics.com/csp.