

RZ/T2H, RZ/N2H XDP and DPDK Package

Version 1.0.1

Release Note

R01US0724EJ0101

Rev. 1.01

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Introduction

This release note describes the contents and important points of the RZ/T2H, RZ/N2H XDP and DPDK Package.

Please also refer to the following documents that describe the Board Support Package (hereinafter referred to as “BSP”) and the instruction to build BSP and boot the evaluation boards.

- [r01us0681ej0101-rz-t2h-n2h\(Release_Note_RZT2H_N2H\).pdf](#)
- [r01us0682ej0101-rz-t2h-n2h\(Linux_Start-up_Guide_RZ/T2H_N2H\).pdf](#)

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1. Release Items

- **Name and version**
RZ/T2H, RZ/N2H XDP and DPDK Package Version 1.0.1
- **Target board**
 - RZ/T2H Evaluation Board
 - RZ/N2H Evaluation Board
- **Functions**
 - XDP (eXpress Data Path)
 - DPDK (Data Plane Development Kit)
- **File contents**
BSP is delivered by the files listed in Table 1.

Table 1. RZ/T2H, RZ/N2H XDP and DPDK Package

RZ/T2H, RZ/N2H XDP and DPDK Package v1.0.1

File	Description
RTK0EF0177Z02000ZJ-v1.0.1.zip (*)	XDP and PDK Package. This file includes the Yocto recipe and the necessary document.
meta-rz-dpdk_v1.0.1.tar.gz	This Yocto recipe builds XDP test tools and DPDK (including test tools). It's prepared based on the layer listed in OpenEmbedded Layer Index - layers and can build both components. (*)
r01us0724ej0101-rz-t2h-n2h (XDP_DPDK_Package_Release_Note).pdf	This document.
r11an0831ej0101-rz-t2h-n2h(XDP_AppNote).pdf	This file describes how to use XDP.
r11an0971ej0101-rz-t2h-n2h(DPDK_AppNote).pdf	This file describes how to use DPDK.
test_analysis.sh	This script evaluates the transmission performance of DPDK. Please see the DPDK application note for details.

(*) Both XDP and DPDK are technologies for accelerating network processing, but they take different approaches. Please consider them according to your system.

Basic Packages of BSPv1.0.1

File	Description
RTK0EF0177Z00002ZJ-v1.0.1.zip (*)	Board Support Package. This file includes the Yocto recipe packages and the necessary documents.
rzt2h_n2h_bsp_v1.0.1.tar.gz	Yocto recipe packages
- HDR NM - Flash_Programmer_SCIF_CR52_RZT2H_EVK.mot	Flash Programmer. These are used for writing the bootloaders the evaluation board.
r01us0681ej0101-rz-t2h-n2h(Release_Note_RZT2H_N2H).pdf	BSP release note.
R01us0682ej0101-rz-t2h-n2h(Linux_Start-up_Guide_RZ/T2H_N2H).pdf	Documents describing booting method and the required settings of bootloader for RZ/T2H, RZ/N2H.

(*) These packages are provided "AS IS" with no warranty and the license which is described in the source code. Please check the contents of the license, then consider the applicability to the product carefully.

2. Components

The components which are commonly used in this release are listed in the following table. Please also refer to the manifest file for details. The manifest file is created to following path after building the images:

Example:

```
$WORK/build/tmp/deploy/images/rzt2h-dev/core-image-minimal-rzt2h-dev.manifest
```

Or

```
$WORK/build/tmp/deploy/images/rzn2h-dev/core-image-minimal-rzn2h-dev.manifest
```

Table 2. Versions of commonly used components

Components	BSP v1.0.0	BSP v1.0.1
Linux kernel	5.10.145-cip17	5.10.145-cip17
GCC	8.3.0 (Arm GCC 8.3-2019.03)	8.3.0 (Arm GCC 8.3-2019.03)
busybox	1.30.1	1.30.1
openssl	1.1.1n	1.1.1n

3. Changes

The following table lists the changes from the previous version.

Table 3. Changes from XDP and DPDK Package v1.0.0 to v1.0.1

Features	Description
Package	<ul style="list-style-type: none"><li data-bbox="408 416 1439 450">- Newly support RZ/N2H evaluation board.<li data-bbox="408 454 1439 506">- Newly support DPDK.

4. Restrictions

(1) **XDP and DPDK**

XDP and DPDK cannot be built and used at the same time.

(2) **DPDK**

Since the GMAC IP does not access 64-bit memory addresses, the Linux memory space is limited to 1GB in this release to allow DPDK to operate. This workaround is only applied to DPDK. For more information, please contact Renesas.

5. Notes

None.

6. Revision History

Rev.	Date	Description	
		Page	Summary
1.00	Nov. 26, 2024	-	First edition issued.
1.01	Dec. 23, 2024	-	Newly support RZ/T2H, RZ/N2H BSP v1.0.1. Newly support DPDK.

Website and Support

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