RZ/T2H, RZ/N2H Board Support Package
Version 1.0.1

R01US0681EJ0101
Rev. 1.01
Dec. 23, 2024

Release Note

Introduction

This release note describes the contents and important points of the RZ/T2H, RZ/N2H Board Support Package (hereinafter referred to as “BSP”).

Please also refer to the following documents that describe the instructions to build BSP and boot the evaluation boards.

- r01us0682ej0101-rz-t2h-n2h(Linux_Start-up_Guide_RZT2H_N2H).pdf

Contents

1. Release Items 2
2. Components 3
3. Changes 4
4. Restriction 5
5. Note 6
6. Revision History 7

1. Release Items

- **Name and version**
  RZ/T2H, RZ/N2H Board Support Package
  Version 1.0.1 (hereinafter referred to as “BSP v1.0.1”)

- **Target board**
  RZ/T2H Evaluation Board
  RZ/N2H Evaluation Board

- **Functions**
  Linux BSP
    - Linux Kernel
    - Linux Drivers

  GUI Framework
    - LVGL
    - Qt

- **File contents**
  BSP is delivered by the files listed in Table 1.

Table 1. RZ/T2H, RZ/N2H Board Support Package

Basic files of BSP v1.0.1

File	Description
RTK0EF0177Z00002ZJ-v1.0.1.zip (*)	Board Support Package. This file includes the **Yocto recipe packages**, the necessary documents, and Flash Programmer.
rzt2h_n2h_bsp_v1.0.1.tar.gz	**Yocto recipe packages**
- HDR NM - Flash_Programmer_SCIF_CR52_RZT2H_EVK.mot	Flash Programmer for both RZ/T2H and RZ/N2H. These are used for writing the bootloaders on the evaluation board.
r01us0681ej0101-rz-t2h-n2h(Release_Note_RZT2H_N2H).pdf	This document.
r01us0682ej0101-rz-t2h-n2h(Linux_Start-up_Guide_RZ/T2H_N2H).pdf	A document that describes the process from building the BSP to booting the evaluation board.

(*) 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 Table 2. Please also refer to the manifest file for details. The manifest file is created to the following path after building the images:

Example:

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

```
$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
Docker	19.03.8-ce	19.03.8-ce

3. Changes

The following table lists the changes from the previous version.

Table 3. Changes from BSPv1.0.0 to BSPv1.0.1

Features	Description
Package	- Newly support RZ/N2H evaluation board.
Kernel	- Newly support RZ/N2H. - Enable ETH0 and ETH1 ports on the evaluation board by default. Assign ETH0 to “lan0” and ETH1 to “lan1”. - Reconfigure Linux network interfaces to assign ETH3 port to “eth0” and ETH2 port to “eth1”. - Update the configuration of LEDs on VSC8541 and ETH ports. - Solve pin conflicts between PCIe and Ethernet controller on the development board. When PCIe is enabled, all ETH ports were previously disabled. This issue is resolved. Please note that PCIe and ETH3 port are mutually exclusive as a HW specification. - Solve the random DMA timeout issue. The timeout occurs when an SD card is inserted or removed.
U-Boot	- Enable GMAC2 as default setting.

4. Restriction

(1) PCIe Devices compatibility

Our evaluation has shown that the following PCIe cards are incompatible with our evaluation board. It is likely that other PCIe cards may also exhibit the same issue.

- BUFFALO USB 3.0 2-Port PCI-Express Interface Board (IFC-PCIE2U3)
- Lenovo PCI-E PCI Express x1 2-Ports USB 3.0 Adapter Card 03T7030

(2) PCIe Endpoint

The PCIe Endpoint feature on the evaluation board of RZ/T2H and RZ/N2H are currently unavailable. We are actively working to develop and implement this functionality.

5. Note

(1) WDT

The watchdog timer (WDT) is unable to reboot the system due to the XSPI being in 8-bit mode.

6. Revision History

		Description	
Rev.	**Date**	**Page**	**Summary**
1.0.0	Nov. 26, 2024	-	First edition issued.
1.0.1	Dec. 23, 2024	-	Update the information to BSP v1.0.1. Newly support RZ/N2H.

Website and Support

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