

# RZ/T2H, RZ/N2H Board Support Package

## Version 1.0.2

R01US0681EJ0102

Rev. 1.02

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### 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.

- [r01us0682ej0102-rz-t2h-n2h\(Linux\\_Start-up\\_Guide\\_RZT2H\\_N2H\).pdf](#)

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## 1. Release Items

- **Name and version**  
RZ/T2H, RZ/N2H Board Support Package  
Version 1.0.2 (hereinafter referred to as “BSP v1.0.2”)
- **Target board**  
RZ/T2H Evaluation Board  
RZ/N2H Evaluation Board
- **Functions**  
Linux BSP
  - Linux Kernel
  - Linux DriversGUI 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 v1.0.2**

File	Description
RTK0EF0177Z00002ZJ-v1.0.2.zip (*)	Board Support Package. This file includes the <b>Yocto recipe packages</b> , the necessary documents, and Flash Programmer.
rzt2h_n2h_bsp_v1.0.2.tar.gz	<b>Yocto recipe packages.</b>
- 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.
r01us0681ej0102-rz-t2h-n2h(Release_Note_RZT2H_N2H).pdf	This document.
r01us0682ej0102-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 v1.0.1	BSP v1.0.2
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 BSPv1.0.1 to BSPv1.0.2**

Features	Description
Kernel	<ul style="list-style-type: none"><li>- Support PCIe Endpoint. Please note that there are some limitations and some patches.</li><li>- TSU driver is disabled to access OTP. TSU gets OTP with the secure monitor call function.</li><li>- Ping failed when setting over 1340 bytes, so this is fixed.</li><li>- DSU frequency is changed.</li><li>- Support PTPOUT signal.</li><li>- Support the driver of EtherCAT Slave Controller.</li><li>- Fix long boot time issue on preempt-RT version of kernel.</li><li>- Updated CPG driver according to the latest hardware manual.</li><li>- Change RS485 DE definition pin from gpio to pinctrl.</li><li>- SCI: support baud rate higher than 115200.</li></ul>

## 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 (EP)

The PCIe Endpoint feature of RZ/T2H and RZ/N2H have the following limitations:

- Only MSI interrupt is supported.

## 5. Note

### (1) PCIe Endpoint

If you require the PCIe Endpoint, please apply the following patch before starting a build. And please skip step 2.2(2) in r01us0682ej0102-rz-t2h-n2h(Linux\_Start-up\_Guide\_RZT2H\_N2H).pdf to avoid a conflict.

```
$ cd ~/rzt2h_n2h_bsp_v1.0.2
$ patch -p1 < ./extra/enable_pcie_endpoint.patch
```

## 6. Revision History

Rev.	Date	Description	
		Page	Summary
1.00	Nov. 26, 2024	-	First edition issued.
1.01	Dec. 23, 2024	-	Update the information to BSP v1.0.1. Newly support RZ/N2H.
1.02	Apr. 15, 2025	-	Update the information to BSP v1.0.2.

**Website and Support**

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