

RZ/V2N Fast Prototyping Board

Quick Start Guide

1. Introduction

The RZ/V2N Fast Prototyping Board (FPB-RZV2N) is designed to make it easy to evaluate and experiment with AI applications based on Renesas high-performance Arm®-based RZ/V2N MPU. By providing essential interfaces and ready-to-use hardware, this board allows developers to quickly bring up the system and start exploring vision AI and edge AI use cases with minimal setup effort. This guide provides a brief overview of the board specifications and explains how to get started with the board.

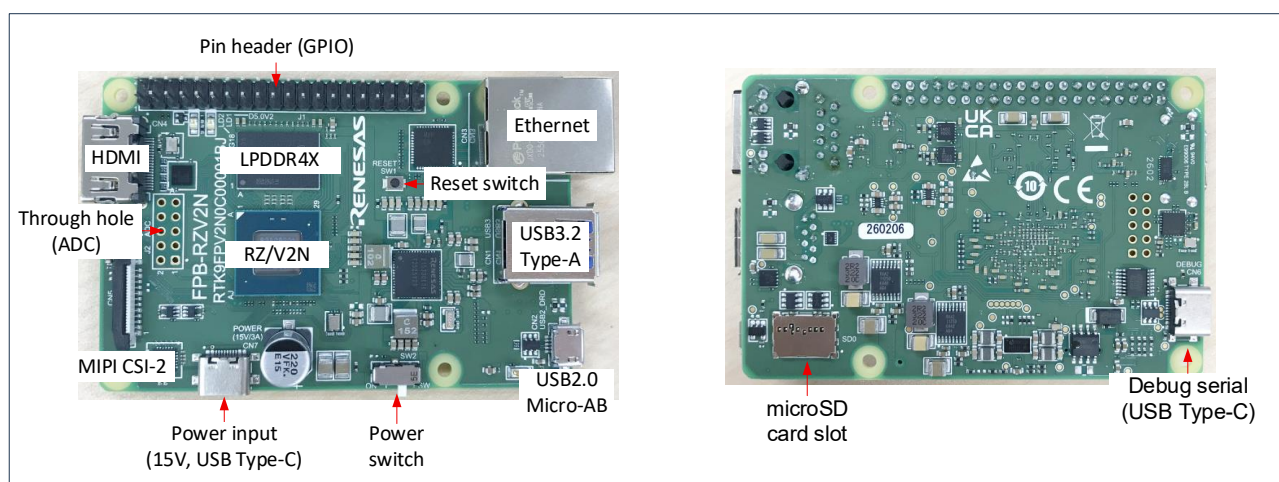
2. Package Contents

- FPB-RZV2N (P/N: RTK9FPV2N0C00001BJ)
- Quick Start Guide (this document)
- China RoHS Hazardous Substance Table

3. Board Specifications

Item	Specification
MPU	RZ/V2N (P/N: R9A09G056N44GBG)
Memory	8GB LPDDR4X (Micron® MT53E2G32D4DE-046 AIT:C)
Power supply	USB Type-C® Power Delivery (CN7) (45 W or more)
Switches	Power (slide) x1 (SW2), Reset (push) x1 (SW1)
LED	Power (green) x2
Ethernet	RJ-45 x1 (CN3)
USB	USB2.0 Micro-AB x1 (CN2), USB3.2 Type-A x1 (CN1)
Debug serial	USB Type-C x1 (CN6) (UART to USB)
Display	HDMI® Type-A x1 (CN4) (MIPI® DSI® to HDMI)
Camera	MIPI CSI-2® (FFC 22 pin) x1 (CN5)
SD card slot	microSD® card slot x1 (SD0)
Pin header (2.54mm pitch)	GPIO: 40 pin (2x20) x1, ADC: 10 pin (2x5) x1 (DNF)
Board size	85 x 56 mm

4. Board Layout



5. Getting Started

First, write the Linux image to the microSD card. For detailed instructions, please refer to the following URL:

https://renesas-rz.github.io/rzv_ai_sdk/latest/getting_started.html



6. Power-ON Procedure

1. Insert a microSD card



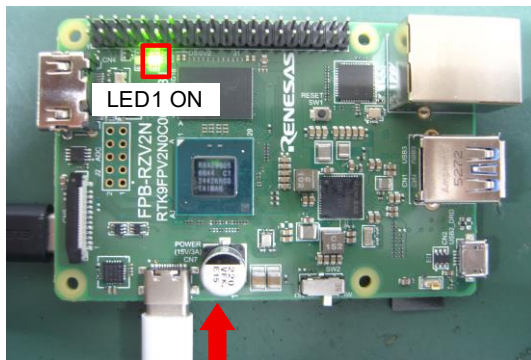
Note: Before inserting the microSD card, you need to write the SD image to the card. Please refer to the Getting Started.

2. Connect a USB Cable (for debugging)



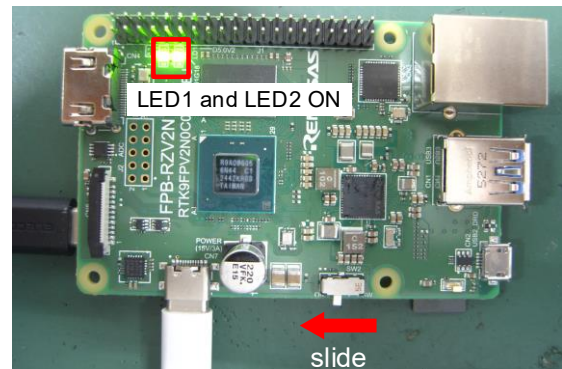
Note: Use a Type-A to Type-C USB cable. Connect the Type-A end to a PC running terminal software (e.g., Tera Term).

3. Connect a USB PD adapter



Note: A USB PD adapter capable of 15 V / 3 A is required.

4. Power ON (SW2: ON)



7. Website and Support

For detailed information on the FPB-RZV2N, refer to the FPB-RZV2N evaluation board manual available at renesas.com/fpb-rzv2n.

Technical Contact Details

Global & Japan: <https://www.renesas.com/support/contact.html>

General information on Renesas' products can be found on our website:

<https://www.renesas.com/>



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Revision History

Rev.	Date	Description	
		Page	Summary
1.00	Apr. 30, 2026	-	New