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## RAA2P3500 Evaluation Kit (RTKA2P3500S00000BE)

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This guide provides step-by-step instructions for setting up the hardware of the RAA2P3500 evaluation kit.

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# 1. Evaluation Kit Hardware

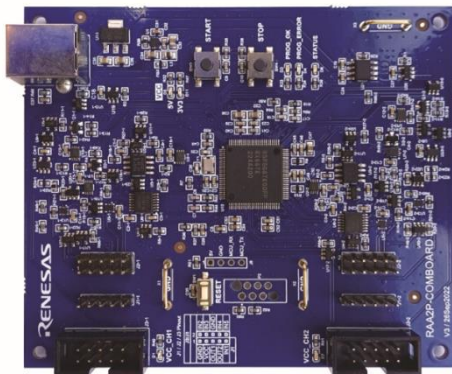
The RAA2P3500 hardware and software ecosystem is designed to provide quick setup and easy evaluation of the device's capabilities. Contact the local Renesas representative to obtain the required components and development boards.

## 1.1 Hardware Kit Content

Table 1 lists components that are included in the kit.

**Table 1. Evaluation Kit Contents**

Name	Ordering Number	Information	Quantity
RAA2P-COMBOARD	RAA2P-COMBOARD	Programming board	1
10-wire sensor cable	N/A		2
USB-B cable	N/A		1
5 U-Type Cable	N/A		1
RAA2P3500R0100ABI	N/A	34mm 360° Rotary Module with ABI interface	1
RAA2P3500R0400	N/A	32mm 4-periodic rotary module with SPI interface	1



RAA2P-COMBOARD



RAA2P3500R0100AB



RAA2P3500R0400

**Figure 1. RAA2P3500 Standard Kit Content**

## 2. Hardware Setup

The kit includes two sensor modules that could be interfaced with the RAA2PCOMBOARD to communicate, configure, and perform position sensing.

### 2.1 RAA2P3500R0100ABI Module

The RAA2P3500R0100ABI module is a rotary sensor with the following characteristics:

- Absolute 360° rotary sensing in 34mm outer diameter
- 14-bit resolution
- ±0.154° accuracy
- Incremental ABI/Step-DIR interface

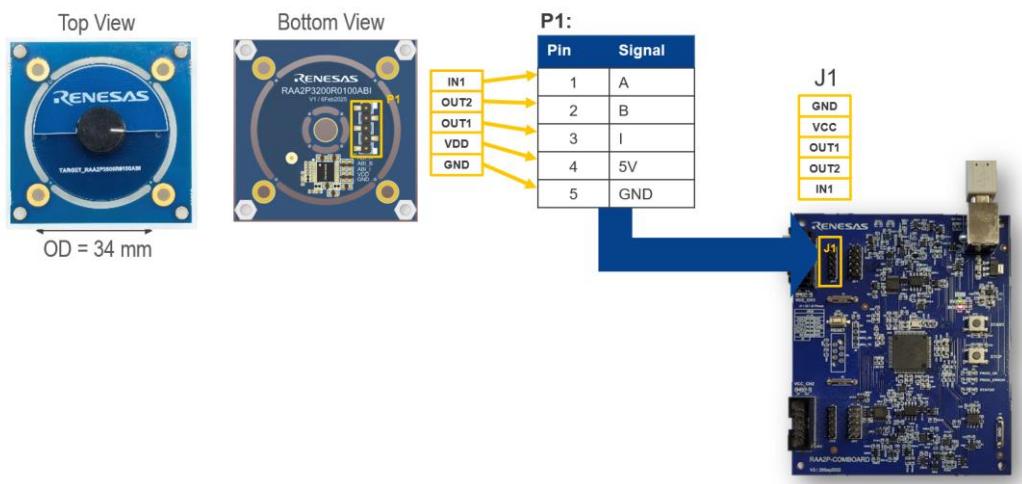


Figure 2. RAA2P3500R0100ABI Module Settings and Connections

### 2.2 RAA2P3500R0400 Module

The RAA2P3500R0400 module is a rotary sensor with the following characteristics:

- 4-periodic rotary module
- 14-bit resolution
- ±0.12° electrical accuracy
- SPI interface

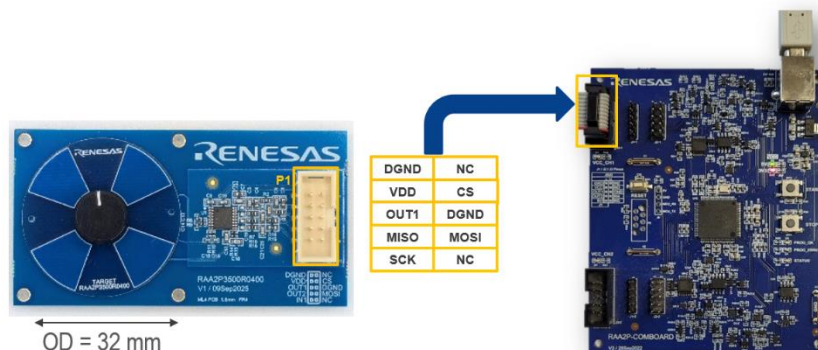


Figure 3: RAA2P3500R0400 Module Settings and Connections

## 2.3 RAA2P-COMBOARD Connections

The sensor module can be interfaced to the RAA2P-COMBOARD by the following steps:

1. Connect the sensor module P1 connector to the J1 header of the RAA2P-COMBOARD using the provided cable according to Figure 4.
2. Connect the RAA2P-COMBOARD to the user PC by using the provided USB-B cable.

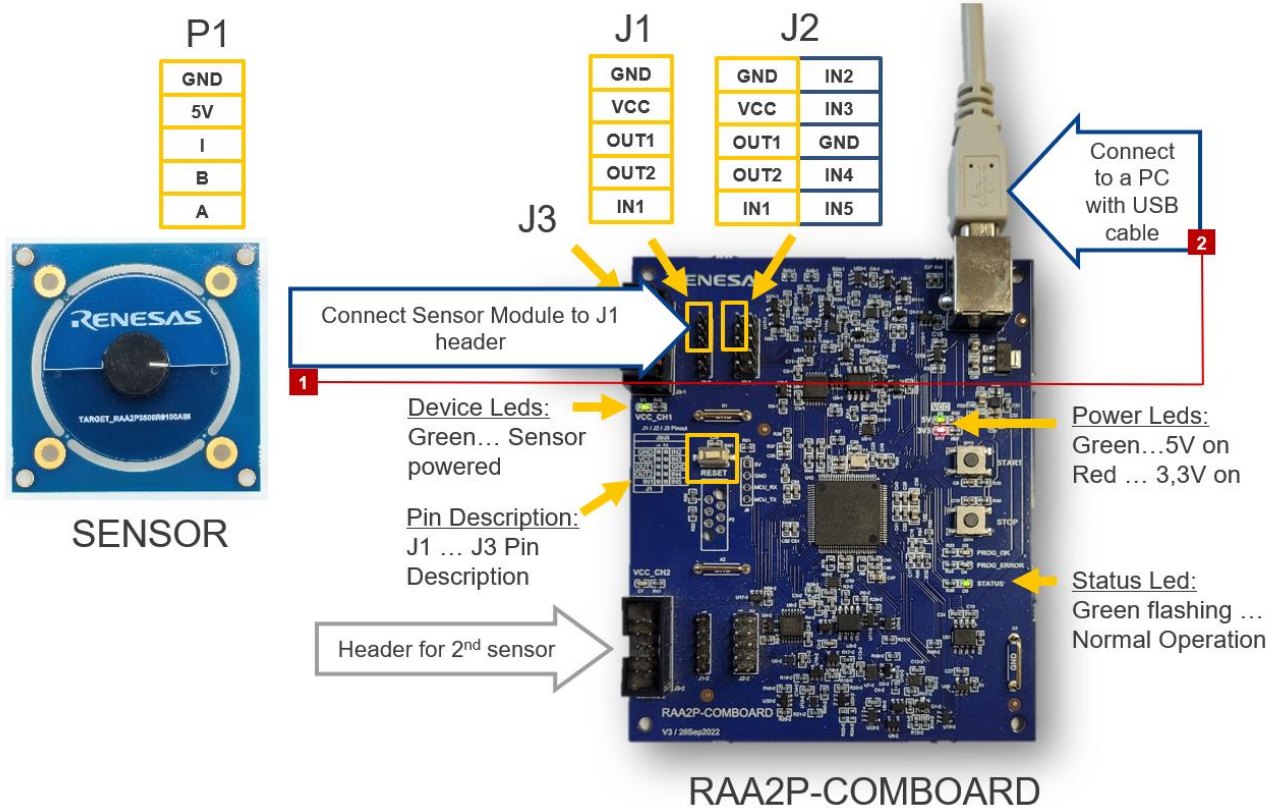


Figure 4. Evaluation Kit Connection Setup

## 3. Software Setup

Once the hardware setup is done, please refer to the RAA2P Evaluation Software GUI Quick Start Guide to set up the software.

## 4. Revision History

Revision	Date	Description
1.00	July 1, 2026	Initial release.