

# RENESAS TECHNICAL UPDATE

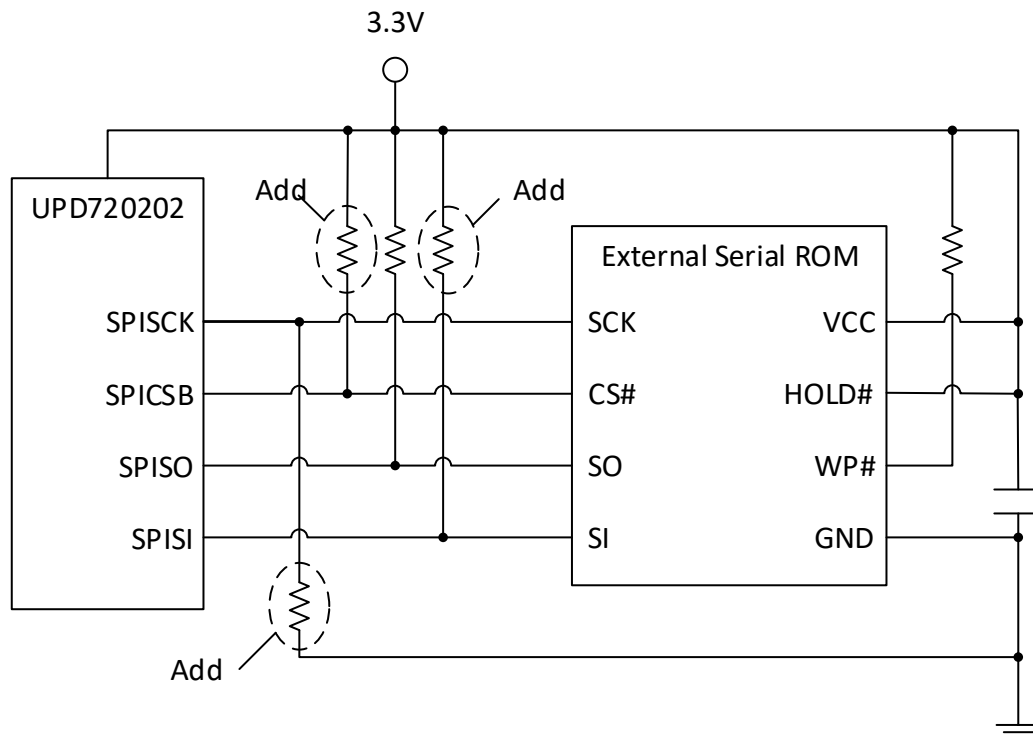
TOYOSU FORESIA, 3-2-24, Toyosu, Koto-ku, Tokyo 135-0061, Japan  
Renesas Electronics Corporation

Product Category	System LSI		Document No.	TN-USB-A0004A/E	Rev.	1.00
Title	μPD720202K8-701-BAA-A External Serial ROM Connection circuit update		Information Category	Technical Notification		
Applicable Product	μPD720202K8-701-BAA-A	Lot No.	Reference Document	μPD720201/μPD720202 Data Sheet (R19DS0047EJ0600) μPD720201/μPD720202 User's Manual: Hardware (R19UH0078EJ0600)		

This documentation describes the notification to revise the recommended circuit with an external serial ROM for only μPD720202K8-701-BAA-A in μPD720201/μPD720202 User's Manual: Hardware (R19UH0078EJ0600).

## 1. New recommended circuit

The new recommended circuit is the following figure so that μPD720202K8-701-BAA-A gets the power consumption which is in μPD720201/μPD720202 Data Sheet (Doc#. R19DS0047EJ0600).



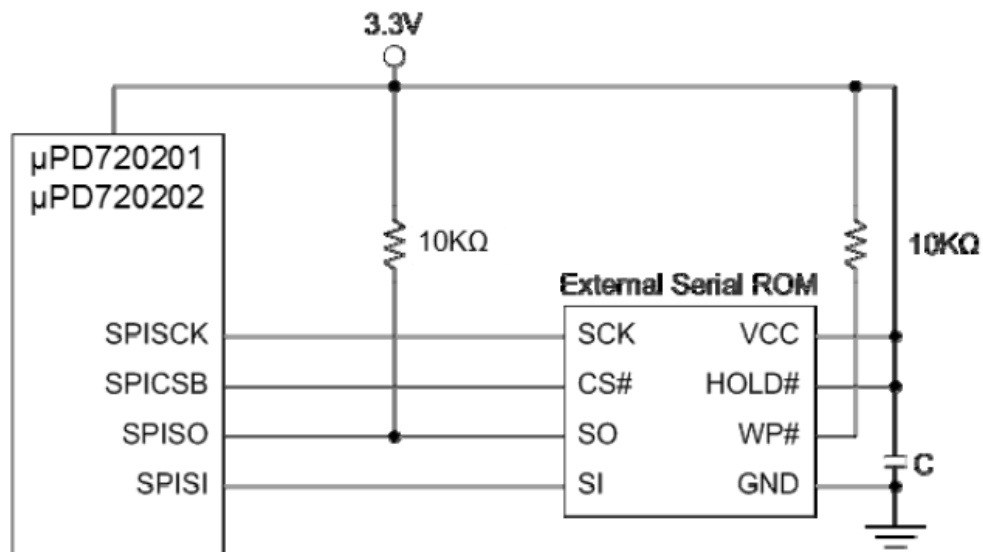
- A. Adds the pulldown resistor on SPISCK
- B. Adds the pullup resistor on SPICSB
- C. Adds the pullup resistor on SPISI

## 2. Background of new recommended circuit

μPD720202K8-701-BAA-A does not have the power consumption with using the recommended circuit which is described in Figure 5-7 of μPD720201/μPD720202 User's Manual: Hardware (R19UH0078EJ0600) as below when

μPD720202K8-701-BAA-A enters into D3-cold state.

**Figure 5-7. External Serial ROM Connection**



3. Note

μPD720201K8-701-BAC-A does not need to apply the new recommended circuit.

μPD720201K8-701-BAC-A can apply the existing recommended circuit.

4. ECN in  $\mu$ PD720201/ $\mu$ PD720202 User's Manual: Hardware (R19UH0078EJ0600)

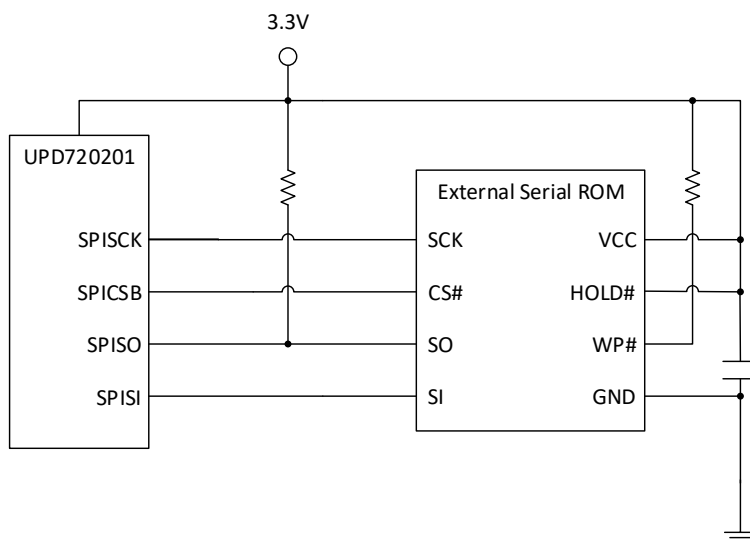
Will update  $\mu$ PD720201/ $\mu$ PD720202 User's Manual: Hardware (R19UH0078EJ0600) as the following

### 5.5 External Serial ROM Connection

Figure 5-7 shows the HW configuration for an external serial ROM.

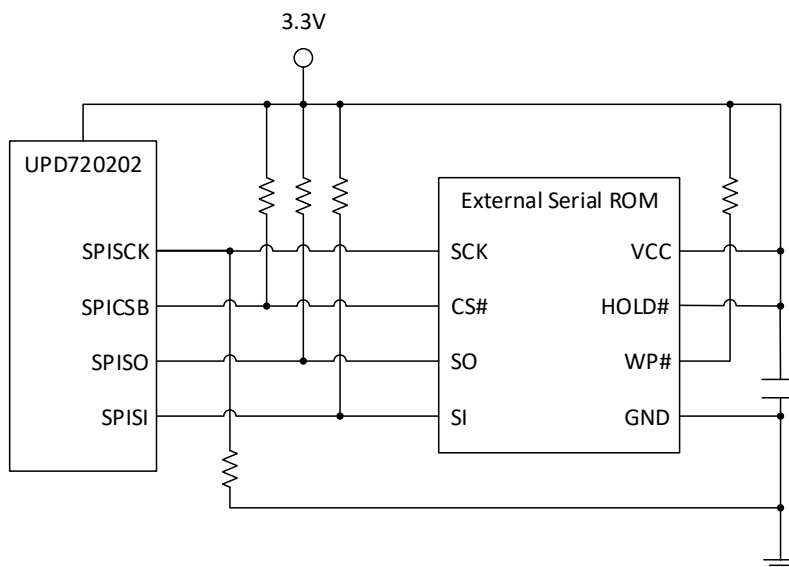
When the external serial ROM is not installed, Refer to Figure 5-8.

**Figure 5-7. External Serial ROM Connection (a)**



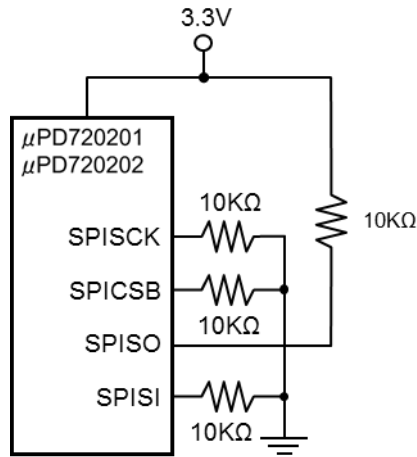
**Note:** The 3.3 V that pulls SO must be the same as the 3.3 V supplied to the  $\mu$ PD720201

**Figure 5-7. External Serial ROM Connection (b)**



**Note:** The 3.3 V that pulls SO must be the same as the 3.3 V supplied to the  $\mu$ PD720202

Figure 5-8. Unused Pins Connection When the External Serial ROM Is Not Mounted



**Note:** SPISO pin must be pulled up by VDD33 (3.3V) through a pull-up resistor in all cases.