Note on reconnecting the RZ/A2M USB2.0 host device to the peer-device

1. Note
   1) If peer-device is connected at Full Speed or Low Speed and a device disconnection occurs just before the frame boundary, subsequent peer-device connection may not be recognized.
   2) If peer-device is connected at Full Speed or Low Speed and executes OHCI suspend instruction after disconnection of the device, subsequent peer-device connection may not be recognized.

2. Measures
   If device disconnection occurs just before the frame boundary, or executes OHCI suspend instruction after disconnection of the device, Check the NPS and the PSM of the HcRhDescriptorA register, and the PPCM[1] of the HcRhDescriptorB register. Execute the flow according to the register value.

<table>
<thead>
<tr>
<th>Register value</th>
<th>Flow</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>HcRhDescriptorA</td>
</tr>
<tr>
<td>NPS (bit9)</td>
<td>PSM (bit8)</td>
</tr>
<tr>
<td>0</td>
<td>1</td>
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<td>0</td>
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<td>1</td>
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</tbody>
</table>

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Note on Flow1, Flow2, Flow3 and Flow4

Note 1 This setting causes the `HcInterruptStatus.RHSC` bit to be set to 1, and an OHCI interrupt is generated. Please only clear the factor because it is an unnecessary interruption.

The status of OHCI `HcRhPortStatus1` register at this time as follows.

- CCS=0
- PES=0
- CSC=1
- PESC=0
Note on Flow 5, Flow 6, Flow 7 and Flow 8

Note.1 This setting causes the HcInterruptStatus.RHSC bit to be set to 1, and an OHCI interrupt is generated.
Please only clear the factor because it is an unnecessary interruption.
The status of OHCI HcRhPortStatus1 register at this time as follows.
CCS=0, PES=0, CSC=1, PESC=0

Note.2
This flow is not time constraint. It also supports when a peer-device is reconnected during the flow.
If this setting and re-connection occur at the same time, the HcInterruptStatus.RHSC bit becomes 1 and an OHCI interrupt may occur, but it is an unnecessary interrupt. Please only clear the factor.
The status of OHCI HcRhPortStatus1 register at this time as follows.
CCS=0, PES=0, CSC=1, PESC=0

Note.3
If PortOwner is changed to OHCI after detecting peer-device's re-connection, the USBSTS.PortChangeDetect bit becomes 1 and EHCI interrupt is generated, but the any process of EHCI driver is prohibited until the sequence is completed.