The following restriction for the V850 series microcontrollers on the 4.Affected Products has been found.

1. Notification
In the constitution to fetch instruction from both internal RAM area and external memory area, when DMA transfer competes with instruction fetch between internal RAM area and external memory area, instruction is fetched incorrectly. Therefore, malfunction occurs.

2. occurrence condition
When two following conditions correspond together, instruction is fetched incorrectly.
Condition 1: A program is executed in internal RAM, and branch to the external RAM area by branch instruction occurs. Or a program is executed in the external memory area, and branch to the internal RAM by branch instruction occurs.
Condition 2: DMA transfer is carried out (a transfer object is internal RAM).

3. Workaround
It is avoidable by having you do control not to correspond to 2.occurrence condition
(1) Don't fetch instruction between internal RAM area and external memory area.
(2) Stop DMA transfer when instruction is fetched between internal RAM area and external memory area.
(3) A transfer object is not internal RAM, when instruction is fetched between internal RAM area and external memory area and DMA transfer is carried out.

4. Affected Products

<table>
<thead>
<tr>
<th>Products series</th>
<th>V850ES/Hx2 series</th>
<th>V850ES/Hx3 series</th>
<th>V850ES/Jx2 series</th>
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<td>V850ES/SA3 series</td>
<td>V850ES/ST3 series</td>
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