

[Notes]

R20TS0974ES0100

Rev.1.00

Nov. 01. 2023

RX Family

LVD Module Firmware Integration Technology

RX Driver Package

Outline

When using the products in the title, note the following point.

1. When using the LVD module in RX Family RX Driver Package Ver.1.40 or Ver.1.41, abnormal behavior in the Smart Configurator would happen when setting the "Voltage detection level" for RX23E-B.
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1.1 Applicable Products

1) RX Driver Package

The product names and revision numbers of the applicable RX Driver Package and the revision numbers of the LVD FIT module are as follows:

Table 1.1 LVD FIT module applicable products

RX Driver Package product name	RX Driver Package revision number	Document number	Revision number of the included LVD FIT module
RX Family RX Driver Package Ver.1.41	Rev.1.41	R01AN6907xx0141	Rev.4.50
RX Family RX Driver Package Ver.1.40	Rev.1.40	R01AN6906xx0140	Rev.4.50

1.2 Applicable Devices

RX23E-B Group.

1.3 Details

Setting "Voltage detection level for channel 1" and "Voltage detection level for channel 2" in Smart Configurator for RX23E-B would result in error

In LVD mdm file (r_lvd_rx_v4.50_extend.mdm), the "Voltage detection level" constraints for RX23E-B are missing. Therefore, when using Smart Configurator to set "Voltage detection level" either channel 1 or channel 2 for RX23E-B, the error "Selected Vdet is not available for current device" would occur

```
// r_lvd_rx_v4.50_extend.mdm
...
<constraint display="Selected Vdet is not available for current device">...
...
// the "voltage detection level" constraints for RX23E-B are missing.
```

1.4 Conditions

- When using Smart Configurator to set “Voltage detection level” (except default value) for RX23E-B.

Below is sample which illustrates the conditions under which the error would happen:

The screenshot shows the 'Software component configuration' window. On the left, a tree view shows the component hierarchy: Startup > Generic > r_bsp > Drivers > Voltage detection > r_lvd_rx. The 'Configure' tab is active, displaying a table of properties and their values. The property 'Voltage detection level for channel 1' is highlighted in blue, and its value '429' is marked with a red 'X' icon, indicating an error. The other properties are: Parameter checking (System Default), Use LVD channel 1 (Corresponding channel is us), Use LVD channel 2 (Corresponding channel is us), Target to be monitored for channel 1 (VCC), Target to be monitored for channel 2 (VCC), Voltage detection level for channel 2 (0xFFFF), Digital filter for channel 1 (Disable), and Digital filter for channel 2 (Disable). Below the table, the macro definition 'LVD_CFG_VOLTAGE_LEVEL_CHANNEL_1' is shown. At the bottom, the 'Smart Configurator Output' window displays five error messages: 'E04020001: Selected Vdet is not available for current device'.

Property	Value
Configurations	
# Parameter checking	System Default
# Use LVD channel 1	Corresponding channel is us
# Use LVD channel 2	Corresponding channel is us
# Target to be monitored for channel 1	VCC
# Target to be monitored for channel 2	VCC
# Voltage detection level for channel 1	429
# Voltage detection level for channel 2	0xFFFF
# Digital filter for channel 1	Disable
# Digital filter for channel 2	Disable

Macro definition: LVD_CFG_VOLTAGE_LEVEL_CHANNEL_1

Smart Configurator Output

```
E04020001: Selected Vdet is not available for current device
E04020001: Selected Vdet is not available for current device
E04020001: Selected Vdet is not available for current device
E04020001: Selected Vdet is not available for current device
E04020001: Selected Vdet is not available for current device
```

1.5 Workaround

User should upgrade to LVD FIT Rev.4.60 once it is available.

1.6 Schedule for Fixing the Problem

This problem will be fixed in LVD FIT Rev.4.60

Revision History

Rev.	Date	Description	
		Page	Summary
1.00	Nov.01.23	-	First edition issued

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