Product Note LPCXpresso1769/CD rev D



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To Our Valued Customers,

This product note describes a behavior of the **LPCXpresso1769/CD board, rev D**, that can cause problems. Typical symptoms are:

- Debugging works when the LPCXpresso1769/CD board is standalone, but stops working when mounted on a base board.
- A "CRP DISABLD" USB drive appears on the PC instead of the debug interface.

Cause

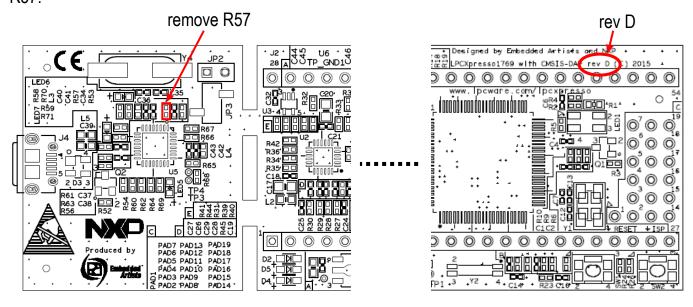
The debug MCU (LPC11U35) will start-up in ISP mode if an external reset signal is low during power-up. This is a typical situation if there is a reset generator on the base board.

Solution

Remove R57 on the LPCXpresso1769/CD board. This will disconnect the ISP enable signal on the LPC11U35 from the external reset signal.

Identification

Only rev D boards are affected. See picture below for locating revision text and also to locate R57.



If there ever is a need to update the debugger firmware (in the LPC11U35), follow the procedure below. Note that this is an unlikely situation to happen since the debugger firmware is not expected to be updated.

- 1. Mount a 0402-sized resistor in R57. Value is not critical. It can be 0-50 ohm.
- 2. The board should be standalone, i.e., not mounted on a base board.

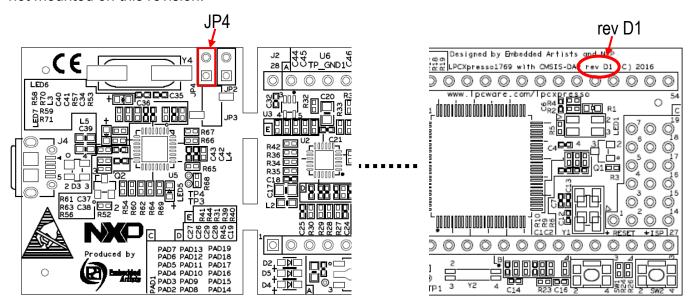
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- 3. Keep the reset push-button pressed while inserting the USB cable in J4.
- 4. Observe the "CRP DISABLD" drive appearing on the PC.
- 5. Delete the file "firmware.bin" from the "CRP DISABLD" drive.
- 6. Copy the new debugger firmware to the "CRP DISABLD" drive.
- 7. Remove R57 again.

Note that rev D1 boards are not affected. See picture below for location revision text. R57 is not mounted on this revision.



If debugger firmware ever needs to be updated on rev D1 boards, the procedure is the following:

- 1. The board should be standalone, i.e., not mounted on a base board.
- 2. Short the two positions in JP4, for example with a wire.
- 3. Power up the board by inserting the USB cable in J4.
- 4. Observe the "CRP DISABLD" drive appearing on the PC.
- 5. Delete the file "firmware.bin" from the "CRP DISABLD" drive.
- 6. Copy the new debugger firmware to the "CRP DISABLD" drive.
- 7. Remove the short in JP4.

Kind Regards, Embedded Artists AB June 8th, 2016