

NEC芯片原理图—低电压检测

2.1.3 Low-Voltage Detect (LVI)

The low-voltage detect (LVI) function offers the following features:

- Selectable reset or interrupt operation for low-voltage condition
- Ability to check VDD or the voltage on an external input pin
- Selectable VDD from 16 voltage levels

The low-voltage detect circuit compares a voltage against an internal reference and generates an internal interrupt or internal reset when the voltage falls below the reference value. The circuit can compare against VDD, tapping off of a resistor divider to select a specific voltage. The low-voltage detect circuit also supports an external input, EXLVI, generating an interrupt or reset when the voltage on this pin drops below the reference voltage of 1.21V.

Figure 5. Low-Voltage Detector Block Diagram

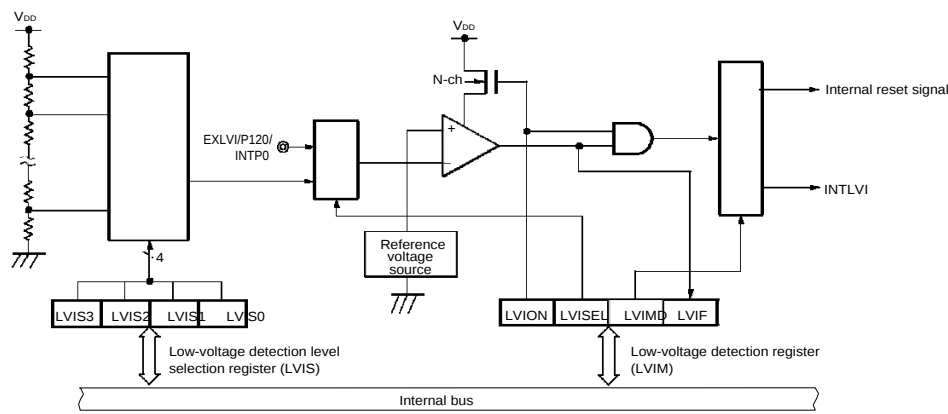


Table 2. Registers Controlling Low-Voltage Detect

| Registers                                      | Symbol | Description of Functions                        |
|------------------------------------------------|--------|-------------------------------------------------|
| Low-voltage detection register                 | LVIM   | Sets low-voltage detection and operation mode   |
|                                                |        | Enable/disable low-voltage detection            |
|                                                |        | Select internal or external input (EXLVI)       |
|                                                |        | Set low-voltage operation mode and flag         |
| Low-voltage detection level Selection register | LVIS   | Selects low-voltage detection level             |
|                                                |        | Selects up to 16 levels                         |
| Port-mode register                             | PMx    | Sets port mode to input or output for EXLVI pin |

To configure low-voltage detection when using reset mode:

- Set the LVIMK bit in the MK0L register to mask the LVI interrupt.
- Clear the LVIIF interrupt flag in the IF0L register.
- Disable the LVI detector by clearing the LVION bit in the LVIM register.