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Renesas Electronics Corporation

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3858 Group

Reset Circuit

1. Abstract

The following article introduces and shows reset circuit sequences and connection examples using the reset IC on the 3858 Group device.

2. Introduction

The application explained in this document applies to the following MCU:
Applicable MCU: 3858 Group

3. Contents

3.1 Reset Sequence

The MCU enters reset status when the $\overline{\text{RESET}}$ pin is held at “L” level for 20 cycles or more of the XIN input under the circumstance in which the power source voltage is between 2.7 V and 5.5 V, and XIN is stable. Reset status is released after the $\overline{\text{RESET}}$ pin is set to “H” and 8 to 13 cycles of the XIN input has passed and starts sourcing the system clock ϕ to the CPU. Then, the program starts from the address whose high-order address is the content of the address FFFD₁₆ and low-order address is the content of the address FFFC₁₆ in divide-by-8 mode and when XCIN is stopped.

Figure 3.1 shows the Reset Sequence.

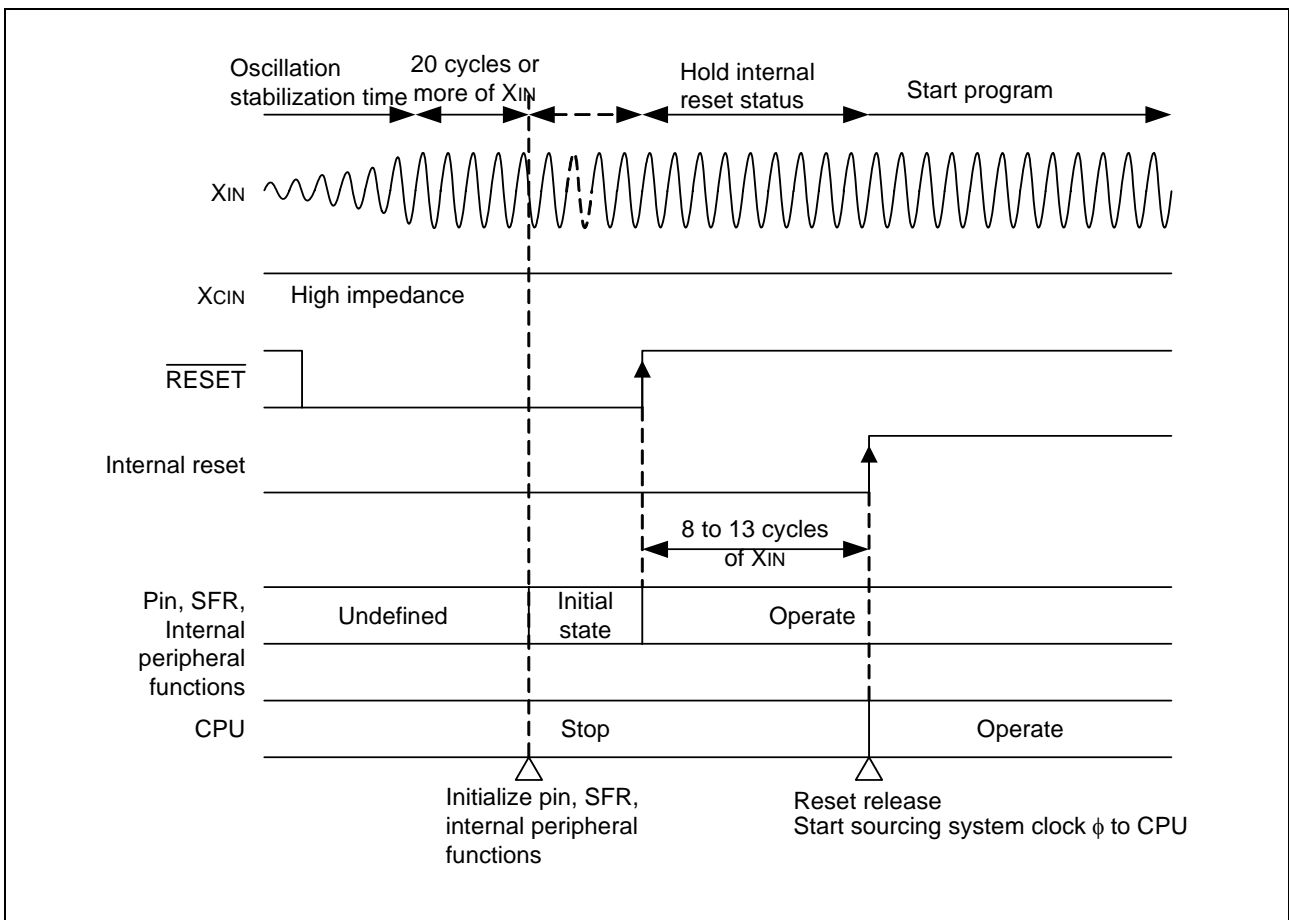


Figure 3.1 Reset Sequence

3.2 Connection Example Using Reset IC

Figure 3.2 shows the Power-on Reset Circuit Example and Figure 3.3 shows RAM Backup System Example. In this system, the MCU detects system power decrease by INT0 interrupt and is switched to RAM backup mode.

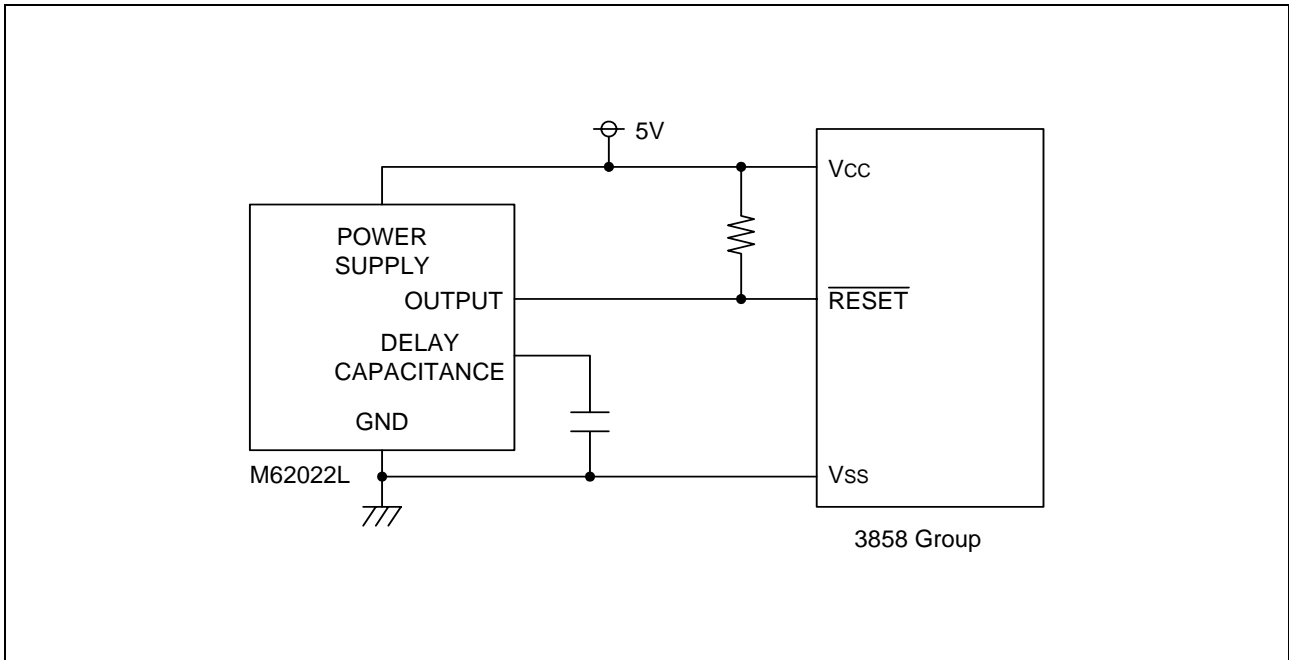


Figure 3.2 Power-on Reset Circuit Example

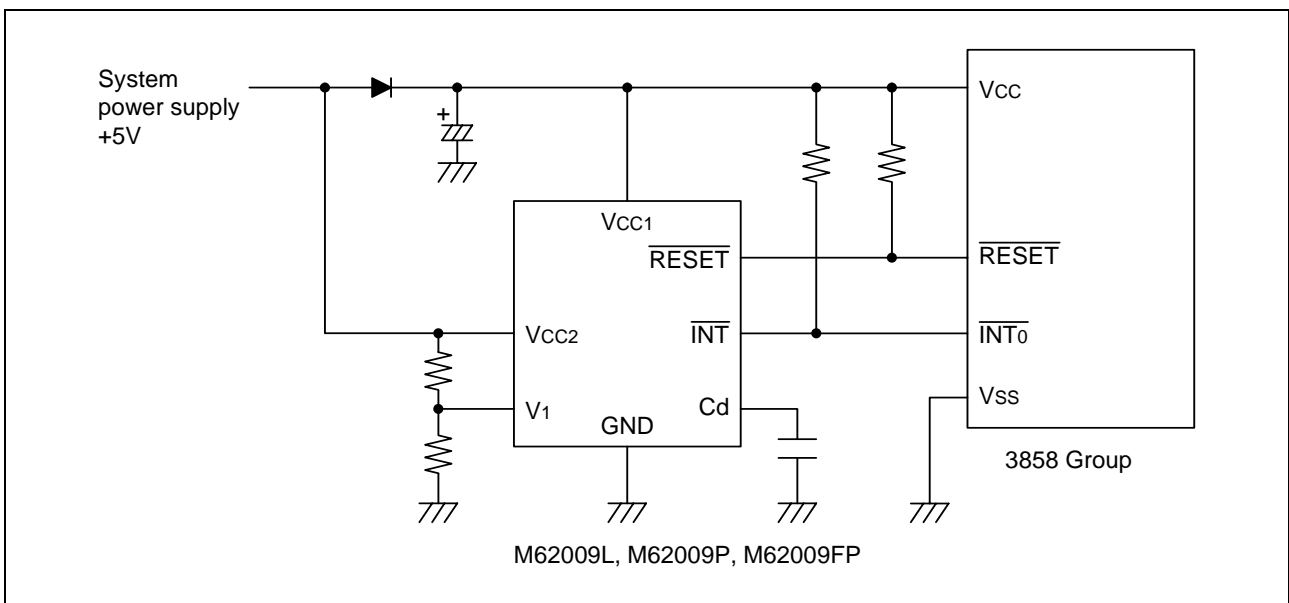


Figure 3.3 RAM Backup System Example

3.3 Status of Each Port Immediately After Reset

Table 3.1 lists each pin status when the $\overline{\text{RESET}}$ pin is held to “L”.

Table 3.1 Each Pin Status When the $\overline{\text{RESET}}$ Pin Is Held to “L”

Pin Name	Pin Status
P0, P1, P30 to P34, P40 to P44	Input mode (High impedance)

4. Reference Document

Datasheet

3858 Group Datasheet

(Use the most recent version of the document on the Renesas Technology Web site.)

Technical News/Technical Update

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