

To our customers,

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April 1<sup>st</sup>, 2010  
Renesas Electronics Corporation

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## 38D2 Group

### AD Converter (10-bit A/D Mode)

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#### 1. Abstract

The following article introduces and shows an example of how to use the AD Converter (10-bit A/D Mode) on the 38D2 Group device.

#### 2. Introduction

The application explained in this document applies to the following MCU:  
Applicable MCU: 38D2 Group

This sample program may include operations of unused bit functions for the convenience of the SFR bit layout. Set the values according to the operational conditions of the user system.

### 3. Contents

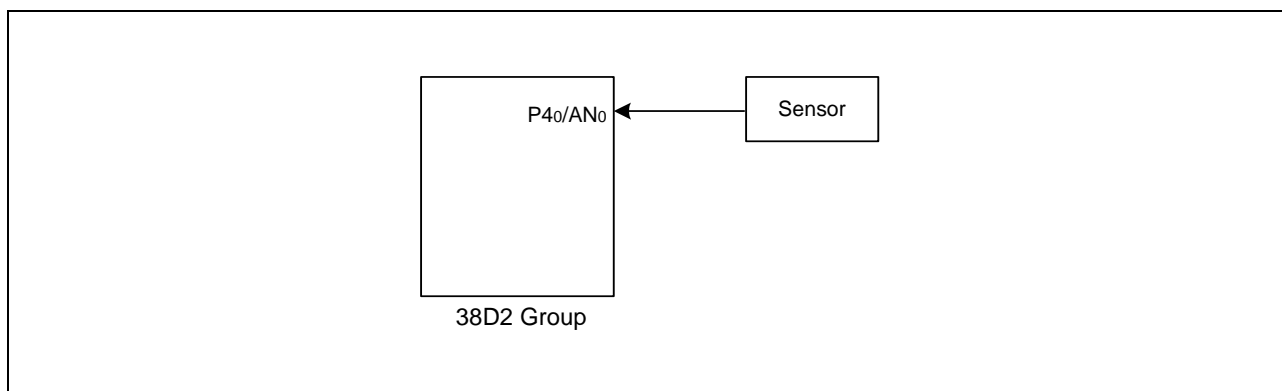
#### 3.1 Analog Signal Read in 10-bit A/D Mode

Outline: The analog input voltage from a sensor is converted to digital values.

Specifications:

- The analog input voltage from a sensor is converted to digital values.
- The P40/AN0 pin is used as an analog input pin.
- 10-bit A/D mode

Figure 3.1 shows a Connection Diagram, Figure 3.2 shows the Relevant Register Settings, and Figure 3.3 shows the Control Procedure.



**Figure 3.1 Connection Diagram**

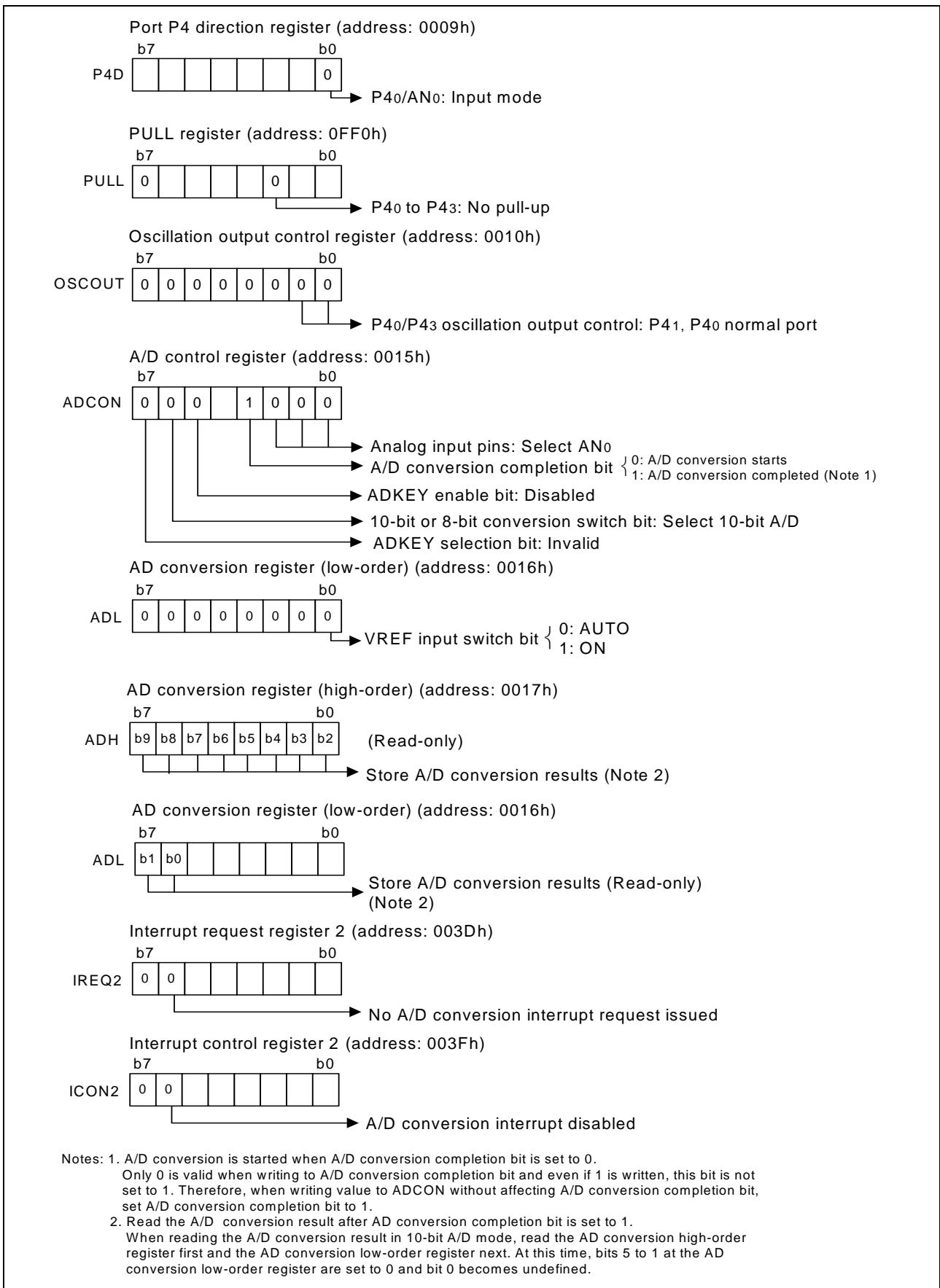


Figure 3.2 Relevant Register Settings

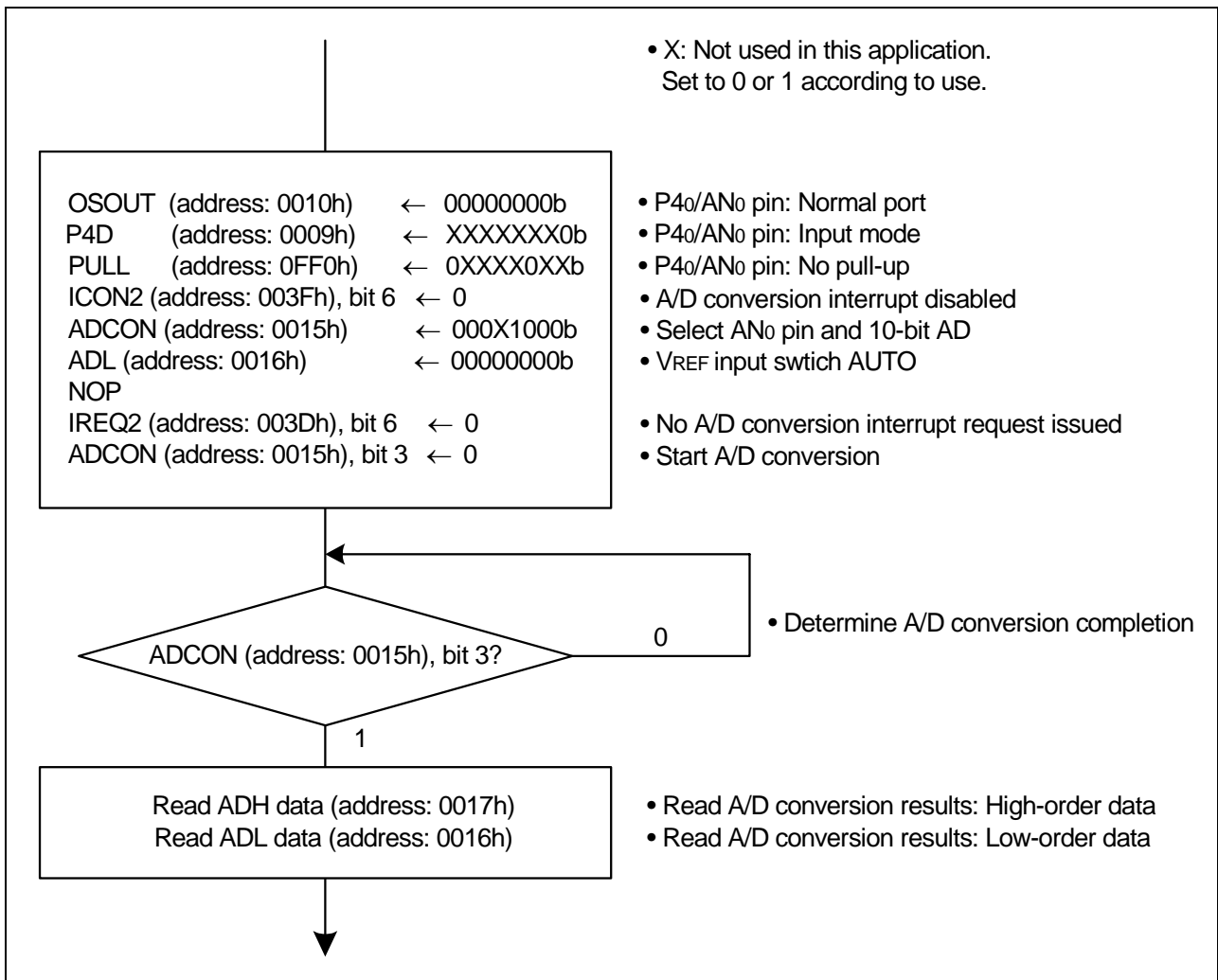


Figure 3.3 Control Procedure

#### **4. Sample Programming Code**

Download a sample program from the Renesas Technology website.  
To download, click “Application Notes” in the left side menu on the page of the 38D2 Group.

#### **5. Reference**

Datasheet  
38D2 Group Datasheet  
Download the latest version from the Renesas Technology website.

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REVISION HISTORY	38D2 Group AD Converter (10-bit A/D Mode)
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Rev.	Date	Description	
		Page	Summary
1.00	Feb 9, 2007	-	First Edition issued



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