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Renesas Electronics Corporation

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78K0R/Kx3 Microcontroller Sample Program Operation Manual (D/A Conversion (Normal Mode) (D/A Converter), ASM Source)

This software is for reference only and NEC Electronics does not guarantee its operation.
Thoroughly evaluate this software on your set prior to use.

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1. OVERVIEW

This manual explains the sample program functions of the D/A converter (normal mode) for the 78K0R/Kx3.

In this sample program, D/A conversion is performed, triggered by a write operation to the DACS0 register.

2. RESOURCES USED

Resource	Description	Remark
Main clock specification	Internal high-speed oscillator used (8 MHz (TYP.))	Always oscillated
	High-speed system clock used (20 MHz)	Oscillated by initial processing. Supplied to CPU and peripheral hardware
Subclock	XT1 (32.768 kHz)	Oscillated by initial processing
Related hardware	Peripheral enable register 0 (PER0)	Controls supplying and stopping of the input clock supply.
	D/A converter mode register (DAM)	Sets normal mode.
	8-bit D/A conversion value setting register 0 (DACS0)	
	Port mode register 11 (PM11)	
	Port register 11 (P11)	
I/O	Analog output: ANO0 (P110)	
Interrupt	Not used	
Others	Not used	

3. SOFTWARE CONFIGURATION

Files

File Name	Processing Outline	Remark
K0R_vct.asm	Vector processing	
K0R_init.asm ^{Note}	Initialization processing	
K0R_main.asm	Main processing	
K0R_sfr_set.asm	D/A converter processing (normal output mode)	

Note This file is commonly used by the sample programs.

4. FUNCTION EXPLANATIONS

[File name]

K0R_main.asm

Function

Function Name	Processing Outline	Argument	Return Value
MMA_STRT	Main routine	None	None

Function explanations

Function name	MMA_STRT
Processing	Main routine
Argument	–
Return value	–
Description	Executes initialization processing and then performs D/A conversion processing.
Remark	–

[File name]

K0R_sfr_set.asm

Functions

Function Name	Processing Outline	Argument	Return Value
SDA_NINI	Initializes D/A converter processing.	None	None
SDA_NOUT	Starts D/A converter processing operation.	None	None
SDA_NSTP	Stops D/A converter processing operation.	None	None

Function explanations

Function name	SDA_NINI
Processing	Initializes D/A converter processing.
Argument	–
Return value	–
Description	Initializes the D/A converter.
Remark	–

Function name	SDA_NOUT
Processing	D/A converter starts conversion processing.
Argument	–
Return value	–
Description	Performs D/A conversion, triggered by the interrupt request signal (INTTM04) of timer channel 4.
Remark	–

Function name	SDA_NSTP
Processing	Stops D/A converter processing operation.
Argument	–
Return value	–
Description	Stops D/A conversion operation.
Remark	–

5. FLOWCHARTS



