

To our customers,

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Renesas Electronics website: <http://www.renesas.com>

April 1st, 2010
Renesas Electronics Corporation

Issued by: Renesas Electronics Corporation (<http://www.renesas.com>)

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Note : Mitsubishi Electric will continue the business operations of high frequency & optical devices and power devices.

Renesas Technology Corp.
Customer Support Dept.
April 1, 2003

M16C/80 Series

Selecting maximum or minimum

1.0 Abstract

This program selects maximum or minimum by using CLIP instruction.

2.0 Introduction

This program selects maximum or minimum by using CLIP instruction.

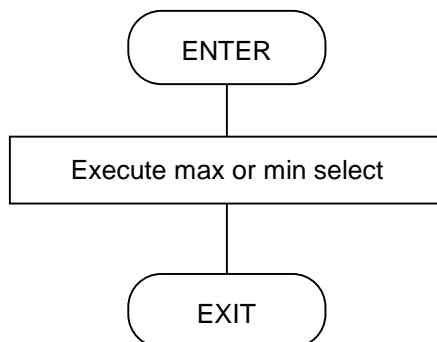
CLIP.B/Wimmediate1,immediate2,dest

Singed compares immediate1 and dest and stores the content of immediate1 in dest if immediate1 is greater than dest. Next, signed compares immediate2 and dest and stores of immediate2 in dest if immediate2 is smmaller than dest. When immediate1 ≤ dest ≤ immediate2, dest is not changed.

Subroutine name :	-	ROM capacity :	7byte
Interrupt during execution:	Accepted	Number of stacks used :	None

Register/memory	Input	Output	Usage condition
R0	-	-	Unused
R1	-	-	Unused
R2	-	-	Unused
R3	-	-	Unused
A0	-	-	Unused
A1	-	-	Unused
W_DATA1	Word data 1	Indeterminate	←
W_DATA2	Word data 2	Result of min select	←
Usage precautions			

3.0 Flowchart



4.0 Programming Code

```

*****
;
; *
;   M16C Program Collection
;   CPU : M16C/80 series
; *
;
*****
;
VramTOP    .EQU    0000400H           ; Declares start address of RAM
VromTOP    .EQU    0FE0000H           ; Declares start address of ROM
           .SECTION    RAM,DATA
           .ORG      VramTOP           ; RAM area
W_DATA:    .BLKW   1                   ; Destination area of max or min select
;
;
=====
;   Title: Selecting maximum or minimum
;   Outline: Example for using max or min select instruction
;   Input:  ----->                   Output:
;   R0()                                R0(Unused)
;   R1()                                R1(Unused)
;   R2()                                R2(Unused)
;   R3()                                R3(Unused)
;   A0()                                A0(Unused)
;   A1()                                A1(Unused)
;   Stack amount used: None
;   Notes:
;
=====
           .SECTION    PROGRAM,CODE
           .ORG      VromTOP           ; ROM area
CLIP.W     #-1,#1,W_DATA              ; Executes max or min select
;
           .END ;

```

5.0 Reference

MCU Technical Information Homepage

<http://www.infocom.maec.co.jp/indexe.htm>

(or <http://www.mdece.com/> , <http://www.mitsubishichips.com/products/mcu/index.html> or your local Web Site.)

Technical Support

E-mail: support@apl.maec.co.jp

(or your local support E-mail address. A private e-mail address should NOT be used.)

Data Sheet

M16C/80 group

(Use the latest version on the Homepage: <http://www.infocom.maec.co.jp/indexe.htm>)

User's Manual

M16C/80 group

(Use the latest version on the Homepage: <http://www.infocom.maec.co.jp/indexe.htm>)

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