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Renesas Electronics Corporation

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M16C/6NGroup
[Flash Programming]
Differences between M16C/6NA,B and M16C/6N4,5 in CAN I/O mode

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Rev.1.00
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1. Summary

This document explains differences between M16C/6NA,/6NB group (hereafter refer to as /6NA,B) and M16C/6N4,/6N5 group (hereafter refer to as /6N4,5) in CAN I/O mode of the RENESAS standard bootloader.

2. Points of difference

Between /6NA,B and /6N4,5, the following points mainly differ in CAN I/O mode.

- Pin connection
- CAN bit-rate
- Division of flash memory

2.1. Pin connection

In /6N4,5, be sure to process SCLK(P6_5) = Vss in addition to the processing of /6NA,B. Figure 1 shows an example of processing pins in CAN I/O mode.

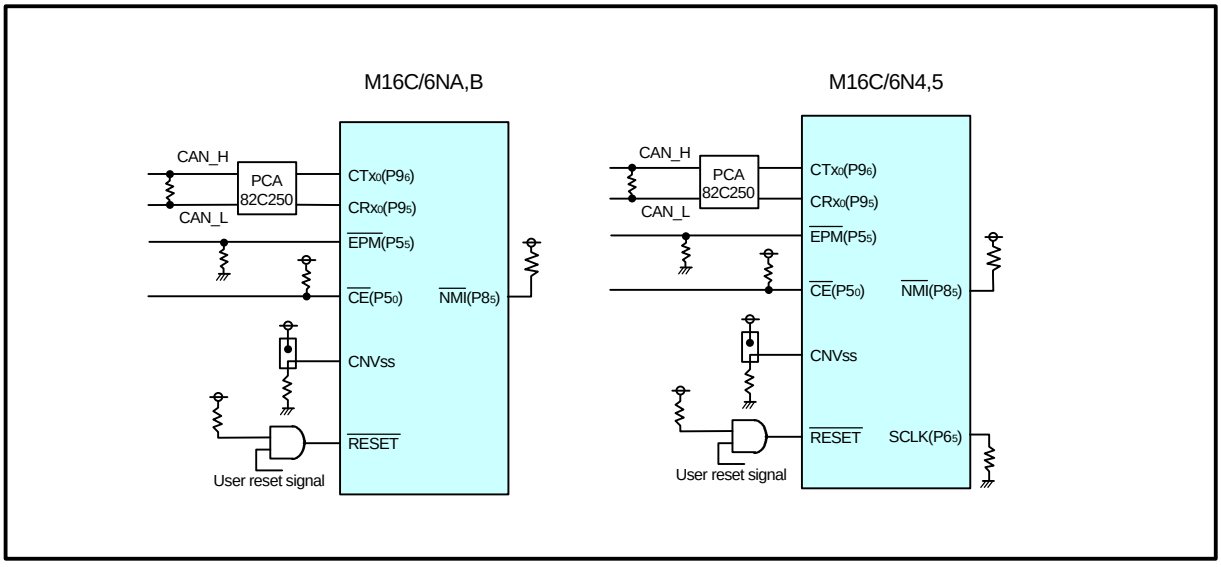

Figure 1 Example of processing pins in CAN I/O mode

2.2. Settable CAN Bit-rate

Table1 shows settable CAN bit-rate of /6NA,B and /6N4,5.

Table 1 Settable CAN Bit-rate

Frequency / CAN Bit–rate(kbps)	20MHz		16NHz		10MHz		8MHz		5MHz		4MHz	
	/6NA,B	/6N4,5	/6NA,B	/6N4,5	/6NA,B	/6N4,5	/6NA,B	/6N4,5	/6NA,B	/6N4,5	/6NA,B	/6N4,5
1000	–	√	√	√	–	–	–	–	–	–	–	–
500	–	√	√	√	√	√	√	√	–	–	–	–
250	–	√	√	√	√	√	√	√	√	√	√	√
125	–	√	√	√	√	√	√	√	√	√	√	√
100	–	√	√	√	√	√	√	√	√	√	√	√
83.3	–	√	√	√	√	√	√	√	√	√	√	√
80	–	–	√	–	–	–	√	–	–	–	√	–
40	–	–	√	–	√	–	√	–	–	–	√	–
33.3	–	√	–	√	–	√	–	√	–	√	–	√
20	–	–	√	–	√	–	√	–	√	–	√	–
10	–	–	√	–	√	–	√	–	√	–	√	–

– : not supported

2.3. Division of flash memory

Table2 and 3 show the block division of flash memory.

Table 2 Block division of User ROM area

User ROM Block	/6NA,B	/6N4,5
Block0	16kbyte(FC000h-FFFFFh)	4kbyte(FF000h-FFFFFh)
Block1	8kbyte(FA000h-FBFFFh)	4kbyte(FE000h-FEFFFh)
Block2	8kbyte(F8000h-F9FFFh)	8kbyte(FC000h-FDFFFh)
Block3	32kbyte(F0000h-F7FFFh)	8kbyte(FA000h-FBFFFh)
Block4	64kbyte(E0000h-EFFFFh)	8kbyte(F8000h-F9FFFh)
Block5	64kbyte(D0000h-DFFFFh)*1	32kbyte(F0000h-F7FFFh)
Block6	64kbyte(C0000h-CFFFFh)*1	64kbyte(E0000h-EFFFFh)
Block7	———	64kbyte(D0000h-DFFFFh)*1
Block8	———	64kbyte(C0000h-CFFFFh)*1

*1 : available for 256kbyte flash memory only

Table 3 Block division of Data ROM area

Data ROM Block	/6NA,B	/6N4,5
BlockA	———	4kbyte(F000h-FFFFh)

3. Reference

(1) M16C/6N0/6N1 group Data Sheet
(2) M16C/6N4 group Hardware Manual
(3) M16C/6N5 group Hardware Manual

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4. Support

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