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M16C/62P Group

Procedure to Use the PLL Clock as the CPU Clock Source

1. Abstract

This application note describes a procedure to use the PLL clock as the CPU clock source.
The sample program is based on the condition below.

Operation voltage: 5V
Input frequency for the XIN pin: 6MHz

2. Introduction

This application note is applied to the following condition:
Applicable MCU: M16C/62P Group

The program on this application note can also be used when operating other microcomputers within the M16C Family, provided they have the same SFR (Special Function Registers) as the M16C/62P Group. However, some functions may have been modified. Refer to each device's hardware manual for details. Use functions covered in this application note only after careful evaluation.

3. Detailed Description

The PLL-synthesized main clock becomes the PLL clock. To select the PLL clock as the CPU clock source in the sample program, multiply the main clock by 4. When the 6-MHz main clock is multiplied by 4, the PLL clock frequency is 24 MHz.
Table 1 lists the PLL clock settings.

Table 1. PLL Clock Settings

XIN(MHz)	PLC02	PLC01	PLC00	Multiply	PLL clock(MHz)
12	0	0	1	2	24
6	0	1	0	4	24
4	0	1	1	6	24
3	1	0	0	8	24

Figure 1 shows a flowchart to select the PLL clock as the CPU clock source.

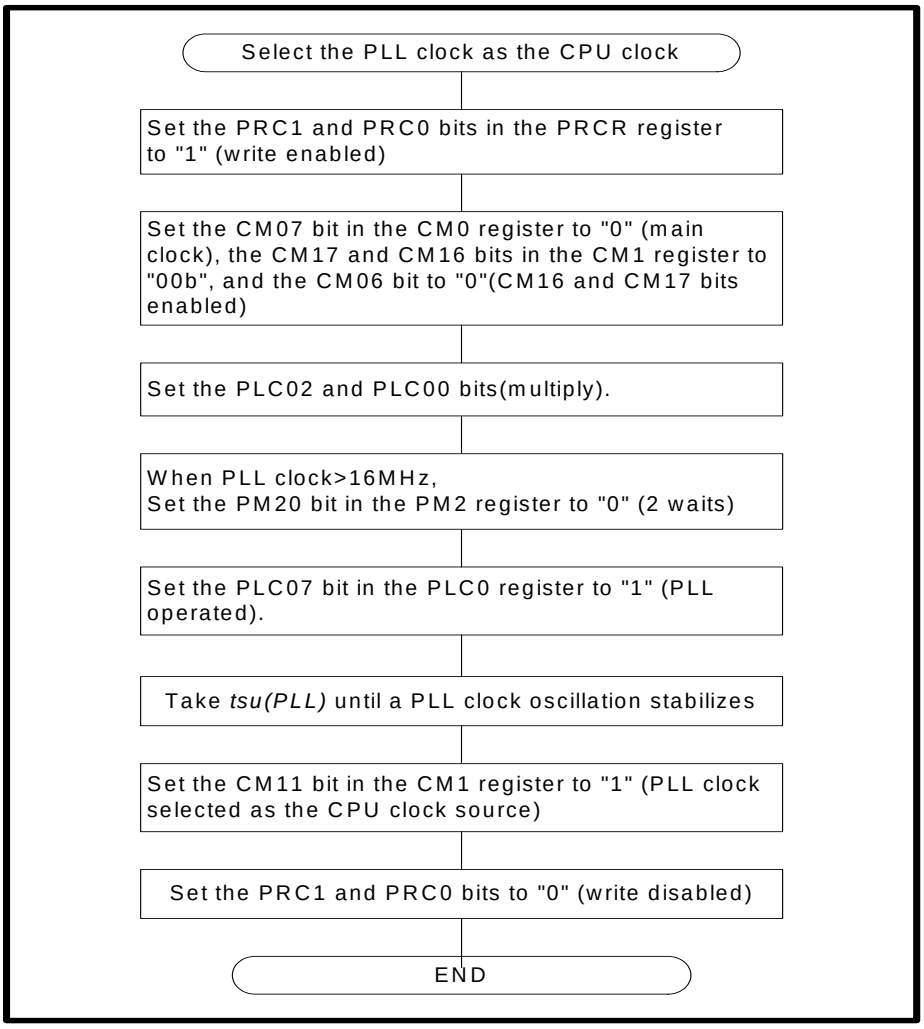

Figure 1. Flowchart to Select the PLL Clock as the CPU Clock Source

4. Reference Program

Please find the reference program from the Renesas Technology Web site.
Click Application Note in the left menu of the M16C/60 Series top page.

5. Reference Documents

Hardware manual
M16C/62P Group (M16C/62P, M16C/62PT) Hardware Manual
(Use the most recent version of the document on the Renesas Technology Web site.)

Technical news/Technical update
(Use the most recent version of the document on the Renesas Technology Web site.)

6. Web site and Support

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