RENESAS

Parameter Files for PG-FP5

Release Note

Thank you for purchasing Parameter Files for PG-FP5.

This document describes cautions on using Parameter Files for PG-FP5. Also see the user's manual of the PG-FP5 for cautions on using the PG-FP5.

See a following WEB site about PG-FP5.

https://www.renesas.com/pg-fp5

Chapter 1.   Package List

Information on the packages listed below is given. For other packages, refer to the release notes that accompany the packages.

RL78 Family

Group	Package name	Package version	Refer to:
RL78/D1A	PR5-R5F10D	V1.01	2.1
RL78/F13	PR5-R5F10B	V1.01	2.1
RL78/F14	PR5-R5F10P	V1.01	2.1
RL78/F15	PR5-R5F113	V1.01	2.1
RL78/F1A	PR5-R5F114	V1.00	2.1
RL78/G10	PR5-R5F10Y	V1.01	2.2
RL78/G11	PR5-R5F105	V1.01	2.1
RL78/G14	PR5-R5F104	V1.07	2.1
RL78/G1D	PR5-R5F11A	V1.00	2.1
RL78/G1E	PR5-R5F10F	V1.02	2.1
RL78/G1F	PR5-R5F11B	V1.00	2.1
RL78/G1G	PR5-R5F11E	V1.00	2.1
RL78/G1H	PR5-R5F11F	V1.00	2.1
RL78/H1D	PR5-R5F11N	V1.01	2.1
RL78/I1B	PR5-R5F10M	V1.00	2.1
RL78/I1C	PR5-R5F10N	V1.01	2.1
RL78/I1D	PR5-R5F117	V1.00	2.1
RL78/I1E	PR5-R5F11C	V1.00	2.1
RL78/L1A	PR5-R5F11M	V1.00	2.1
RL78/L1C	PR5-R5F110	V1.01	2.1

RX Family

Group	Package name	Package version	Refer to:
RX110	PR5-R5F5110	V1.00	2.3
RX111	PR5-R5F5111	V1.01	2.3
RX113	PR5-R5F5113	V1.00	2.3
RX130	PR5-R5F5130	V1.02	2.3
RX210	PR5-R5F5210	V1.03	2.4
RX21A	PR5-R5F521A	V1.01	2.4
RX220	PR5-R5F5220	V1.01	2.5
RX230	PR5-R5F5230	V1.02	2.6
RX231	PR5-R5F5231	V1.02	2.6
RX23T	PR5-R5F523T	V1.01	2.7
RX24T	PR5-R5F524T	V1.02	2.7
RX24U	PR5-R5F524U	V1.00	2.7
RX610	PR5-R5F5610	V1.01	2.8
RX621	PR5-R5F5621	V1.01	2.9
RX62G	PR5-R5F562G	V1.01	2.10
RX62N	PR5-R5F562N	V1.01	2.9
RX62T	PR5-R5F562T	V1.01	2.10
RX630	PR5-R5F5630	V1.01	2.11
RX631	PR5-R5F5631	V1.04	2.11
RX634	PR5-R5F5634	V1.00	2.12
RX63N	PR5-R5F563N	V1.04	2.11
RX63T	PR5-R5F563T	V1.01	2.13
RX64M	PR5-R5F564M	V1.02	2.15
RX651	PR5-R5F5651	V1.02	2.16
RX65N	PR5-R5F565N	V1.02	2.16
RX66T	PR5-R5F566T	V1.00	2.15
RX71M	PR5-R5F571M	V1.01	2.15

RH850 Family

Group	Package name	Package version	Refer to:
RH850/C1x	PR5-RH850C1X	V1.03	2.15
RH850/D1x	PR5-RH850D1X	V1.03	2.15
RH850/E1x	PR5-RH850E1X	V1.02	2.15
RH850/F1H	PR5-RH850F1X	V1.10	2.15
RH850/F1K	PR5-RH850F1X	V1.10	2.17
RH850/F1L	PR5-RH850F1X	V1.10	2.14
RH850/F1M	PR5-RH850F1X	V1.10	2.15
RH850/P1M	PR5-RH850P1X	V1.06	2.15
RH850/P1M-E	PR5-RH850P1X	V1.06	2.15
RH850/P1x-C	PR5-RH850P1X	V1.06	2.17
RH850	PR5-RH850	V1.01	2.14

Renesas USB Power Delivery Family

Group	Package name	Package version	Refer to:
C30	PR5-USBPDC30	V1.00	2.1

ICs for Motor Driver/Actuator Driver

Group	Package name	Package version	Refer to:
ICs for Motor Control	PR5-R5F11B	V1.00	2.1

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78K Family

Group	Package name	Package version	Refer to:
UPD78F8032	PR5-78F8039	V1.01	2.18

V850 Family

Group	Package name	Package version	Refer to:
V850E/Sx3-H	PR5-70F3482	V1.04	2.19
V850E2/Dx4, V850E2/Dx4-H	PR5-70F3537	V1.01	2.20
V850E2/Fx4	PR5-70F4012	V1.06	2.21
V850E2/Fx4-G	PR5-70F3592	V1.01	2.22
V850E2/Fx4-L	PR5-70F3585	V1.01	2.23
V850E2/Fx4-M	PR5-70F3545	V1.02	2.21
V850E2/Px4-L	PR5-70F4155	V1.01	2.24
V850E2/PG4-S	PR5-70F4159	V1.00	2.24
V850E2/Sx4-H	PR5-70F4018	V1.02	2.25

R8C Family

Group	Package name	Package version	Refer to:
R8C/3x	PR5-R8C3X	V1.06	2.26
R8C/5x	PR5-R8C5X	V1.02	2.26
R8C/Lx	PR5-R8CLX	V1.03	2.26

SuperH Family

Group	Package name	Package version	Refer to:
SH7253	PR5-SH7250	V1.00	2.27
SH72Ax	PR5-SH72AX	V1.01	2.28

# Chapter 2.	Correspondence version and notes of PG-FP5

## 2.1	PR5-R5F10D (RL78/D1A), PR5-R5F10B (RL78/F13), PR5-R5F10P (RL78/F14), PR5-R5F113 (RL78/F15), PR5-R5F114 (RL78/F1A), PR5-R5F105 (RL78/G11), PR5-R5F104 (RL78/G14), PR5-R5F11A (RL78/G1D), PR5-R5F10F (RL78/G1E), PR5-R5F11B (RL78/G1F, ICs for Motor Driver/Actuator Driver ICs for Motor Control), PR5-R5F11E (RL78/G1G), PR5-R5F11F (RL78/G1H), PR5-R5F11N (RL78/H1D), PR5-R5F10M (RL78/I1B), PR5-R5F10N (RL78/I1C), PR5-R5F117 (RL78/I1D), PR5-R5F11C (RL78/I1E), PR5-R5F11M (RL78/L1A), PR5-R5F110 (RL78/L1C), PR5-USBPDC30 (Renesas USB Power Delivery C30)

### 2.1.1	Correspondence version and notes of PG-FP5

1. Correspondence version

The correspondence of the version of this parameter file and PG-FP5 is as follows. Please use it in this combination.

Correspondence PG-FP5 version list

PG-FP5	Version
Programming GUI for PG-FP5	V2.06 or later
Firmware for PG-FP5	V2.06 or later
FPGA for PG-FP5	V4 or later

<Version confirmation>
• Programming GUI:	Displayed by selecting [About FP5…] from the [Help] menu
• Firmware:	Displayed by selecting [Reset] from the [Programmer] menu
• FPGA:	Displayed by selecting [Reset] from the [Programmer] menu

2. Notes

a. Please set up programming GUI for PG-FP5 as follows.

Communication system setup

Communication port of Device	Port	Speed
Single-line UART	1 wire UART	115200,250000,500000,1MBaud

Supply oscillator setup

On Target check box	Supply origin	Frequency	Multiply rate
Can't be changed	Internal oscillation circuit	Can't be changed	Can't be changed

2.2   PR5-R5F10Y (RL78/G10)

2.2.1   Correspondence version and notes of PG-FP5

1. Correspondence version

The correspondence of the version of this parameter file and PG-FP5 is as follows. Please use it in this combination.

Correspondence PG-FP5 version list

PG-FP5	Version
Programming GUI for PG-FP5	V2.10 or later
Firmware for PG-FP5	V2.10 or later
FPGA for PG-FP5	V4 or later

<Version confirmation>

- Programming GUI: Displayed by selecting [About FP5…] from the [Help] menu
- Firmware: Displayed by selecting [Reset] from the [Programmer] menu
- FPGA: Displayed by selecting [Reset] from the [Programmer] menu

2. Notes

a. Please set up programming GUI for PG-FP5 as follows.

Communication system setup

Communication port of Device	Port	Speed
Single-line UART	1 wire UART	115200Baud

Supply oscillator setup

On Target check box	Supply origin	Frequency	Multiply rate
Can't be changed	Internal oscillation circuit	Can't be changed	Can't be changed

2.3　PR5-R5F5110 (RX110), PR5-R5F5111 (RX111), PR5-R5F5113 (RX113), PR5-R5F5130 (RX130)

2.3.1　Correspondence version and notes of PG-FP5

1. Correspondence version

The correspondence of the version of this parameter file and PG-FP5 is as follows. Please use it in this combination.

Correspondence PG-FP5 version list

PG-FP5	Version
Programming GUI for PG-FP5	V2.11 or later
Firmware for PG-FP5	V2.11 or later
FPGA for PG-FP5	V4 or later

<Version confirmation>

- Programming GUI:　Displayed by selecting [About FP5…] from the [Help] menu
- Firmware:　　　　　Displayed by selecting [Reset] from the [Programmer] menu
- FPGA:　　　　　　 Displayed by selecting [Reset] from the [Programmer] menu

2. Notes

a. Please set up programming GUI for PG-FP5 as follows.

Supply oscillator setup

On Target check box	Supply origin	Frequency	Multiply rate
Can't be changed	High-speed on-chip oscillator	When using SCI1: fx=16.0MHz When using FINE: fx=8.0MHz (VCC＜3.0V), 32MHz (VCC≧3.0V)	PLL mode (CKM) 1.00 (CKP) 1.00

Communication system setup

Communication port of Device	Port	Speed
SCI1	UART	By setting the frequency and Multiply rate, you can select the communication speed can be selected.
FINE	Fine-D	

b. If microcontroller is programmed by little endian, you must use the parameter file of R5F5xxxxx_L.pr5. The other parameter file of R5F5xxxxx_B.pr5 is used by big endian.

c. Use R5F5xxxxx_x_2.pr5 when writing to R5F51305 products having 100 pins. Use R5F5xxxxx_x.pr5 to write to microcontrollers having 80 or less pins.

2.4　　PR5-R5F5210 (RX210), PR5-R5F5210A (RX21A)

2.4.1　　Correspondence version and notes of PG-FP5

1. Correspondence version

The correspondence of the version of this parameter file and PG-FP5 is as follows. Please use it in this combination.

Correspondence PG-FP5 version list

PG-FP5	Version
Programming GUI for PG-FP5	V2.11 or later
Firmware for PG-FP5	V2.11 or later
FPGA for PG-FP5	V4 or later

<Version confirmation>

- Programming GUI:　Displayed by selecting [About FP5…] from the [Help] menu
- Firmware:　　　　　Displayed by selecting [Reset] from the [Programmer] menu
- FPGA:　　　　　　Displayed by selecting [Reset] from the [Programmer] menu

2. Notes

a. Please set up programming GUI for PG-FP5 as follows.

Supply oscillator setup

On Target check box	Supply origin	Frequency	Multiply rate
Can't be changed	High-speed on-chip oscillator	fx=32.0MHz	PLL mode (CKM) 1.00 (CKP) 1.00

Communication system setup

Communication port of Device	Port	Speed
SCI1	UART	By setting the frequency and Multiply rate, you can select the communication speed can be selected.
FINE	Fine-D	

b. If microcontroller is programmed by little endian, you must use the parameter file of R5F5xxxxx_L.pr5. The other parameter file of R5F5xxxxx_B.pr5 is used by big endian.

c. Use R5F5xxxxx_x_2.pr5 when writing to R5F52105B or R5F52106B products having 144 or more pins. Use R5F5xxxxx_x.pr5 to write to microcontrollers having 100 or less pins.

d. For the Chip Version A of the RX210, FINE is not supported.

2.5   PR5-R5F5220 (RX220)

2.5.1   Correspondence version and notes of PG-FP5

1. Correspondence version

The correspondence of the version of this parameter file and PG-FP5 is as follows. Please use it in this combination.

Correspondence PG-FP5 version list

PG-FP5	Version
Programming GUI for PG-FP5	V2.11 or later
Firmware for PG-FP5	V2.11 or later
FPGA for PG-FP5	V4 or later

<Version confirmation>

• Programming GUI: Displayed by selecting [About FP5…] from the [Help] menu

• Firmware: Displayed by selecting [Reset] from the [Programmer] menu

• FPGA: Displayed by selecting [Reset] from the [Programmer] menu

2. Notes

a. Please set up programming GUI for PG-FP5 as follows.

Supply oscillator setup

On Target check box	Supply origin	Frequency	Multiply rate
Can't be changed	High-speed on-chip oscillator	fx=32.0MHz	PLL mode (CKM) 0.50 (VCC＜3.0V), 1.00 (VCC≧3.0V) (CKP) 0.50 (VCC＜3.0V), 1.00 (VCC≧3.0V)

Communication system setup

Communication port of Device	Port	Speed
SCI1	UART	By setting the frequency and Multiply rate, you can select the communication speed can be selected.
FINE	Fine-D	

b. If microcontroller is programmed by little endian, you must use the parameter file of R5F5xxxxx_L.pr5. The other parameter file of R5F5xxxxx_B.pr5 is used by big endian.

2.6 PR5-R5F5230 (RX230), PR5-R5F5231 (RX231)

2.6.1 Correspondence version and notes of PG-FP5

1. Correspondence version

The correspondence of the version of this parameter file and PG-FP5 is as follows. Please use it in this combination.

Correspondence PG-FP5 version list

PG-FP5	Version
Programming GUI for PG-FP5	V2.11 or later
Firmware for PG-FP5	V2.11 or later
FPGA for PG-FP5	V4 or later

<Version confirmation>

• Programming GUI: Displayed by selecting [About FP5…] from the [Help] menu
• Firmware: Displayed by selecting [Reset] from the [Programmer] menu
• FPGA: Displayed by selecting [Reset] from the [Programmer] menu

2. Notes

a. Please set up programming GUI for PG-FP5 as follows.

Supply oscillator setup

On Target check box	Supply origin	Frequency	Multiply rate
Can't be changed	High-speed on-chip oscillator	fx=8.0MHz (VCC＜3.0V), 32.0MHz (VCC≧3.0V)	When using SCI1: PLL mode (CKM) 2.00 (CKP) 2.00 When using FINE: PLL mode (CKM) 1.00 (CKP) 1.00

Communication system setup

Communication port of Device	Port	Speed
SCI1	UART	By setting the frequency and Multiply rate, you can select the communication speed can be selected.
FINE	Fine-D	When using SCI1 and fx=32.0MHz, 4.000Mbd not selected. When using fx=8.0MHz, 1.000Mbd or more is not selected.

b. If microcontroller is programmed by little endian, you must use the parameter file of R5F5xxxxx_L.pr5. The other parameter file of R5F5xxxxx_B.pr5 is used by big endian.

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2.7   PR5-R5F523T (RX23T), PR5-R5F524T (RX24T), PR5-R5F524U (RX24U)

2.7.1   Correspondence version and notes of PG-FP5

1. Correspondence version

The correspondence of the version of this parameter file and PG-FP5 is as follows. Please use it in this combination.

Correspondence PG-FP5 version list

PG-FP5	Version
Programming GUI for PG-FP5	V2.11 or later
Firmware for PG-FP5	V2.11 or later
FPGA for PG-FP5	V4 or later

<Version confirmation>
- Programming GUI: Displayed by selecting [About FP5…] from the [Help] menu
- Firmware: Displayed by selecting [Reset] from the [Programmer] menu
- FPGA: Displayed by selecting [Reset] from the [Programmer] menu

2. Notes

a. Please set up programming GUI for PG-FP5 as follows.

Supply oscillator setup

On Target check box	Supply origin	Frequency	Multiply rate
Can't be changed	High-speed on-chip oscillator	fx=32.0MHz	When using SCI1: PLL mode (CKM) 2.00 (CKP) 2.00
			When using FINE: PLL mode (CKM) 1.00 (CKP) 1.00

Communication system setup

Communication port of Device	Port	Speed
SCI1	UART	By setting the frequency and Multiply rate, you can select the communication speed can be selected. When using SCI1, 4.000Mbd not selected.
FINE	Fine-D	

b. If microcontroller is programmed by little endian, you must use the parameter file of R5F5xxxxx_L.pr5. The other parameter file of R5F5xxxxx_B.pr5 is used by big endian.

2.8   PR5-R5F5610 (RX610)

2.8.1   Correspondence version and notes of PG-FP5

1. Correspondence version

The correspondence of the version of this parameter file and PG-FP5 is as follows. Please use it in this combination.

Correspondence PG-FP5 version list

PG-FP5	Version
Programming GUI for PG-FP5	V2.06 or later
Firmware for PG-FP5	V2.06 or later
FPGA for PG-FP5	V4 or later

<Version confirmation>

- Programming GUI: Displayed by selecting [About FP5…] from the [Help] menu
- Firmware: Displayed by selecting [Reset] from the [Programmer] menu
- FPGA: Displayed by selecting [Reset] from the [Programmer] menu

2. Notes

a. Please set up programming GUI for PG-FP5 as follows.

Supply oscillator setup

On Target check box	Supply origin	Frequency	Multiply rate
Can't be changed	External oscillation circuit	8.0MHz≦fx≦14.0MHz [Note]	PLL mode [Note] (CKM) 1.00,2.00,4.00,8.00 (CKP) 1.00,2.00,4.00,8.00

Note) Please set so that "Frequency * CKM=8MHz～100MHz(ICLK)" and "Frequency * CKP=8MHz～50MHz(PCLK)".
        Please refer to the user's manual of a device for Operation Conditions.

Communication system setup

Communication port of Device	Port	Speed
SCI4	UART	By setting the frequency and Multiply rate, you can select the communication speed can be selected.

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2.9   PR5-R5F5621 (RX621), PR5-R5F562N (RX62N)

2.9.1   Correspondence version and notes of PG-FP5

1. Correspondence version
The correspondence of the version of this parameter file and PG-FP5 is as follows. Please use it in this combination.
Correspondence PG-FP5 version list

PG-FP5	Version
Programming GUI for PG-FP5	V2.06 or later
Firmware for PG-FP5	V2.06 or later
FPGA for PG-FP5	V4 or later

<Version confirmation>

- Programming GUI: Displayed by selecting [About FP5…] from the [Help] menu
- Firmware: Displayed by selecting [Reset] from the [Programmer] menu
- FPGA: Displayed by selecting [Reset] from the [Programmer] menu

2. Notes

a. Please set up programming GUI for PG-FP5 as follows.
Supply oscillator setup

On Target check box	Supply origin	Frequency	Multiply rate
Can't be changed	External oscillation circuit	8.0MHz≦fx≦14.0MHz Note	PLL mode Note (CKM) 1.00,2.00,4.00,8.00 (CKP) 1.00,2.00,4.00,8.00

Note) Please set so that "Frequency * CKM=8MHz～100MHz(ICLK)" and "Frequency * CKP=8MHz～50MHz(PCLK)".
         Please refer to the user's manual of a device for Operation Conditions.
Communication system setup

Communication port of Device	Port	Speed
SCI1	UART	By setting the frequency and Multiply rate, you can select the communication speed can be selected.

2.10 PR5-R5F562G (RX62G), PR5-R5F562T (RX62T)

2.10.1 Correspondence version and notes of PG-FP5

1. Correspondence version
The correspondence of the version of this parameter file and PG-FP5 is as follows. Please use it in this combination.
Correspondence PG-FP5 version list

PG-FP5	Version
Programming GUI for PG-FP5	V2.06 or later
Firmware for PG-FP5	V2.06 or later
FPGA for PG-FP5	V4 or later

<Version confirmation>

- Programming GUI: Displayed by selecting [About FP5…] from the [Help] menu
- Firmware: Displayed by selecting [Reset] from the [Programmer] menu
- FPGA: Displayed by selecting [Reset] from the [Programmer] menu

2. Notes

a. Please set up programming GUI for PG-FP5 as follows.
Supply oscillator setup

On Target check box	Supply origin	Frequency	Multiply rate
Can't be changed	External oscillation circuit	8.0MHz≦fx≦12.5MHz [Note]	PLL mode [Note] (CKM) 1.00,2.00,4.00,8.00 (CKP) 1.00,2.00,4.00,8.00

Note) Please set so that "Frequency * CKM=8MHz～100MHz(ICLK)" and "Frequency * CKP=8MHz～50MHz(PCLK)".
        Please refer to the user's manual of a device for Operation Conditions.

Communication system setup

Communication port of Device	Port	Speed
SCI1	UART	By setting the frequency and Multiply rate, you can select the communication speed can be selected.

2.11 PR5-R5F5630 (RX630), PR5-R5F5631 (RX631), PR5-R5F563N (RX63N)

2.11.1 Correspondence version and notes of PG-FP5

1. Correspondence version

The correspondence of the version of this parameter file and PG-FP5 is as follows. Please use it in this combination.

Correspondence PG-FP5 version list

PG-FP5	Version
Programming GUI for PG-FP5	V2.09 or later
Firmware for PG-FP5	V2.09 or later
FPGA for PG-FP5	V4 or later

<Version confirmation>

- Programming GUI: Displayed by selecting [About FP5…] from the [Help] menu
- Firmware: Displayed by selecting [Reset] from the [Programmer] menu
- FPGA: Displayed by selecting [Reset] from the [Programmer] menu

2. Notes

a. Please set up programming GUI for PG-FP5 as follows.

Supply oscillator setup (R5F56316, R5F56317, R5F56318, R5F5631F, R5F5631G, R5F5631J, R5F5631W, R5F5631Y, R5F563NF, R5F563NG, R5F563NJ, R5F563NW, R5F563NY)

On Target check box	Supply origin	Frequency	Multiply rate
Can't be changed	External oscillation circuit	4.0MHz≦fx≦16.0MHz [Note]	PLL mode [Note] (CKM) 1.00,2.00,4.00,8.00, 16.00 (CKP) 1.00,2.00,4.00,8.00

Note) Please set so that "Frequency * CKM=4MHz～100MHz(ICLK)" and "Frequency * CKP=4MHz～50MHz(PCLK)".
      Please refer to the user's manual of a device for Operation Conditions.

Supply oscillator setup (Except R5F56316, R5F56317, R5F56318, R5F5631F, R5F5631G, R5F5631J, R5F5631W, R5F5631Y, R5F563NF, R5F563NG, R5F563NJ, R5F563NW, R5F563NY)

On Target check box	Supply origin	Frequency	Multiply rate
Can't be changed	External oscillation circuit	4.0MHz≦fx≦16.0MHz [Note]	PLL mode [Note] (CKM) 1.00,2.00,4.00,8.00, 16.00 (CKP) 1.00,2.00,4.00,8.00

Note) Please set so that "Frequency * CKM=8MHz～100MHz(ICLK)" and "Frequency * CKP=8MHz～50MHz(PCLK)".
      Please refer to the user's manual of a device for Operation Conditions.

Communication system setup

Communication port of Device	Port	Speed
SCI1	UART	By setting the frequency and Multiply rate, you can select the communication speed can be selected.

b. If microcontroller is programmed by little endian, you must use the parameter file of R5F5xxxxx_L.pr5. The other parameter file of R5F5xxxxx_B.pr5 is used by big endian.

2.12   PR5-R5F5634 (RX634)

2.12.1   Correspondence version and notes of PG-FP5

1. Correspondence version

The correspondence of the version of this parameter file and PG-FP5 is as follows. Please use it in this combination.

Correspondence PG-FP5 version list

PG-FP5	Version
Programming GUI for PG-FP5	V2.09 or later
Firmware for PG-FP5	V2.09 or later
FPGA for PG-FP5	V4 or later

<Version confirmation>

• Programming GUI: Displayed by selecting [About FP5…] from the [Help] menu
• Firmware: Displayed by selecting [Reset] from the [Programmer] menu
• FPGA: Displayed by selecting [Reset] from the [Programmer] menu

2. Notes

a. Please set up programming GUI for PG-FP5 as follows.

Supply oscillator setup

On Target check box	Supply origin	Frequency	Multiply rate
Can't be changed	External oscillation circuit	4.0MHz≦fx≦20.0MHz [Note]	PLL mode [Note] (CKM) 1.00,2.00,4.00,8.00, 16.00 (CKP) 1.00,2.00,4.00,8.00

Note) Please set so that "Frequency * CKM=4MHz〜54MHz(ICLK)" and "Frequency * CKP=4MHz〜32MHz(PCLK)".
        Please refer to the user's manual of a device for Operation Conditions.

Communication system setup

Communication port of Device	Port	Speed
SCI1	UART	By setting the frequency and Multiply rate, you can select the communication speed can be selected.

b. If microcontroller is programmed by little endian, you must use the parameter file of R5F5xxxxx_L.pr5. The other
   parameter file of R5F5xxxxx_B.pr5 is used by big endian.

2.13   PR5-R5F563T (RX63T)

2.13.1   Correspondence version and notes of PG-FP5

1. Correspondence version

The correspondence of the version of this parameter file and PG-FP5 is as follows. Please use it in this combination.

Correspondence PG-FP5 version list

PG-FP5	Version
Programming GUI for PG-FP5	V2.09 or later
Firmware for PG-FP5	V2.09 or later
FPGA for PG-FP5	V4 or later

<Version confirmation>

- Programming GUI: Displayed by selecting [About FP5…] from the [Help] menu
- Firmware: Displayed by selecting [Reset] from the [Programmer] menu
- FPGA: Displayed by selecting [Reset] from the [Programmer] menu

2. Notes

a. Please set up programming GUI for PG-FP5 as follows.

Supply oscillator setup (R5F563TB, R5F563TC, R5F563TE)

On Target check box	Supply origin	Frequency	Multiply rate
Can't be changed	External oscillation circuit	8.0MHz≦fx≦12.5MHz [Note]	PLL mode [Note] (CKM) 1.00,2.00,4.00,8.00, 16.00 (CKP) 1.00,2.00,4.00,8.00

Note) Please set so that "Frequency * CKM=8MHz～100MHz(ICLK)" and "Frequency * CKP=8MHz～50MHz(PCLK)".
    Please refer to the user's manual of a device for Operation Conditions.

Supply oscillator setup (Except R5F563TB, R5F563TC, R5F563TE)

On Target check box	Supply origin	Frequency	Multiply rate
Can't be changed	External oscillation circuit	4.0MHz≦fx≦16.0MHz [Note]	PLL mode [Note] (CKM) 1.00,2.00,4.00,8.00, 16.00 (CKP) 1.00,2.00,4.00,8.00

Note) Please set so that "Frequency * CKM=4MHz～100MHz(ICLK)" and "Frequency * CKP=4MHz～50MHz(PCLK)".
    Please refer to the user's manual of a device for Operation Conditions.

Communication system setup

Communication port of Device	Port	Speed
SCI1	UART	By setting the frequency and Multiply rate, you can select the communication speed can be selected.

b. If microcontroller is programmed by little endian, you must use the parameter file of R5F5xxxxx_L.pr5. The other
   parameter file of R5F5xxxxx_B.pr5 is used by big endian.

2.14   PR5-RH850F1X (RH850/F1L), PR5-RH850 (RH850)

2.14.1   Correspondence version and notes of PG-FP5

1. Correspondence version

The correspondence of the version of this parameter file and PG-FP5 is as follows. Please use it in this combination.

Correspondence PG-FP5 version list

PG-FP5	Version
Programming GUI for PG-FP5	V2.12 or later
Firmware for PG-FP5	V2.12 or later
FPGA for PG-FP5	V4 or later

<Version confirmation>

- Programming GUI: Displayed by selecting [About FP5…] from the [Help] menu
- Firmware: Displayed by selecting [Reset] from the [Programmer] menu
- FPGA: Displayed by selecting [Reset] from the [Programmer] menu

2.15 PR5-R5F564M (RX64M), PR5-R5F566T (RX66T), PR5-R5F571M (RX71M), PR5-RH850C1X (RH850/C1x), PR5-RH850D1X (RH850/D1x), PR5-RH850E1X (RH850/E1x), PR5-RH850F1X (RH850/F1M, RH850/F1H), PR5-RH850P1X (RH850/P1M, RH850/P1M-E)

2.15.1 Correspondence version and notes of PG-FP5

1. Correspondence version

The correspondence of the version of this parameter file and PG-FP5 is as follows. Please use it in this combination.

Correspondence PG-FP5 version list (Except RH850/D1M: R7F701441, R7F701442, R7F701461, R7F701462)

PG-FP5	Version
Programming GUI for PG-FP5	V2.13 or later
Firmware for PG-FP5	V2.13 or later
FPGA for PG-FP5	V4 or later

Correspondence PG-FP5 version list (RH850/D1M: R7F701441, R7F701442, R7F701461, R7F701462)

PG-FP5	Version
Programming GUI for PG-FP5	V2.14 or later
Firmware for PG-FP5	V2.14 or later
FPGA for PG-FP5	V4 or later

<Version confirmation>
- Programming GUI: Displayed by selecting [About FP5…] from the [Help] menu
- Firmware: Displayed by selecting [Reset] from the [Programmer] menu
- FPGA: Displayed by selecting [Reset] from the [Programmer] menu

2. Notes

a. In the case of RH850/C1x, RH850/E1x, RH850/P1M, it is not possible to write it by supplying power from the flash programmer to VDD terminal. Please supply power from the outside.

b. In the case of RH850/C1H, it uses the 16MB (1 division) or 10MB (2 division) of the programming area.

c. In the case of RX66T, it is not possible to erase all by ID authentication failure. FINE connection is not possible.

2.16   PR5-R5F5651 (RX651), PR5-R5F565N (RX65N)

2.16.1   Correspondence version and notes of PG-FP5

1. Correspondence version

The correspondence of the version of this parameter file and PG-FP5 is as follows. Please use it in this combination.

Correspondence PG-FP5 version list (R5F56514, R5F56517, R5F56519, R5F565N4, R5F565N7, R5F565N9)

PG-FP5	Version
Programming GUI for PG-FP5	V2.15 or later
Firmware for PG-FP5	V2.15 or later
FPGA for PG-FP5	V4 or later

Correspondence PG-FP5 version list (R5F5651C, R5F5651E, R5F565NC, R5F565NE)

PG-FP5	Version
Programming GUI for PG-FP5	V2.15 or later
Firmware for PG-FP5	V2.16 or later
FPGA for PG-FP5	V4 or later

<Version confirmation>

- Programming GUI: Displayed by selecting [About FP5…] from the [Help] menu
- Firmware: Displayed by selecting [Reset] from the [Programmer] menu
- FPGA: Displayed by selecting [Reset] from the [Programmer] menu

2. Notes

a. In the case of R5F5651C, R5F5651E, R5F565NC, R5F565NE, if microcontroller is programmed by Dual Mode, you must use the parameter file of R5F565x_D_2.pr5. The other parameter file of R5F565x_L_2.pr5 is used by Linear Mode.

2. Notes

RX651: R5F5651C, R5F5651E
RX65N: R5F565NC, R5F565NE

Select the parameter file according to the setting of the Option-Setting Memory "Bank Mode Select" to create a setting file (ESF file).

Bank Mode Select	Target Device	Parameter File
Linear Mode	R5F5651C	R5F5651_L_2.pr5
	R5F5651E	R5F5651_L_2.pr5
	R5F565NC	R5F565N_L_2.pr5
	R5F565NE	R5F565N_L_2.pr5
Dual Mode	R5F5651C	R5F5651_D_2.pr5
	R5F5651E	R5F5651_D_2.pr5
	R5F565NC	R5F565N_D_2.pr5
	R5F565NE	R5F565N_D_2.pr5

When connecting to the MCU of "Bank Mode Select" different from the setting file, the following error is displayed.

   Message display on the main unit: ERROR:023 Inv. Sig. addr.
   FP6 Terminal: ERROR(E023): Connection or synchronisation failed.

The Bank Mode of the MCU is changed at the following timing.

- When MCU is reset after programming Bank Mode setting different from present condition to "Bank Mode Select".
- When MCU in the Dual Mode is reset after erasing with the Erase Options "Erase Chip".

How to change to the Dual Mode

   1. Make the setting file for Linear Mode.

   2. Erase with selecting "Configuration Clear after Erase".

   3. Program the program file of only Option-Setting Memory area set to Dual Mode.

   4. Reset MCU.

2.17 PR5-RH850F1X (RH850/F1K, RH850/F1KM), PR5-RH850P1X (RH850/P1x-C)

2.17.1 Correspondence version and notes of PG-FP5

1. Correspondence version

The correspondence of the version of this parameter file and PG-FP5 is as follows. Please use it in this combination.

Correspondence PG-FP5 version list

PG-FP5	Version
Programming GUI for PG-FP5	V2.14 or later
Firmware for PG-FP5	V2.14 or later
FPGA for PG-FP5	V4 or later

<Version confirmation>

• Programming GUI: Displayed by selecting [About FP5…] from the [Help] menu
• Firmware: Displayed by selecting [Reset] from the [Programmer] menu
• FPGA: Displayed by selecting [Reset] from the [Programmer] menu

2. Notes

a. In the case of RH850/P1x-C, it is not possible to write it by supplying power from the flash programmer to VDD terminal. Please supply power from the outside.

b. In the case of RH850/P1x-C, it uses the 16MB (1 division) of the programming area.

2.18   PR5-78F8039 (UPD78F8032)

2.18.1   Correspondence version and notes of PG-FP5

1. Correspondence version
The correspondence of the version of this parameter file and PG-FP5 is as follows. Please use it in this combination.
Correspondence PG-FP5 version list

PG-FP5	Version
Programming GUI for PG-FP5	V1.00 or later
Firmware for PG-FP5	V1.00 or later
FPGA for PG-FP5	V1 or later

<Version confirmation>
- Programming GUI: Displayed by selecting [About FP5…] from the [Help] menu
- Firmware: Displayed by selecting [Reset] from the [Programmer] menu
- FPGA: Displayed by selecting [Reset] from the [Programmer] menu

2. Notes
a. Please set up programming GUI for PG-FP5 as follows.
Communication system setup

Communication port of Device	Port	Speed
CSI10 (Internal oscillation circuit)	CSI-Internal-OSC	9.8kHz～2500kHz
UART6 (External clock/Programmer clock)	UART-EXCLK	115200Baud
UART6 (External oscillation circuit)	UART-X1-OSC	115200Baud

Supply oscillator setup

On Target check box	Supply origin [Note1]	Frequency	Multiply rate
Check box is selected	Internal oscillation circuit	Can't be changed	Can't be changed
	External clock/External oscillation circuit	$2.0\text{MHz} \leqq fx \leqq 20.0\text{MHz}$ [Note2]	
Check box isn't selected	Programmer clock		

Note1) Supply origin is changed by communication port of Device.
Note2) Please refer to the user's manual of a device for Operation Conditions.

2.19   PR5-70F3482 (V850E/Sx3-H)

2.19.1   Correspondence version and notes of PG-FP5

1. Correspondence version

The correspondence of the version of this parameter file and PG-FP5 is as follows. Please use it in this combination.

Correspondence PG-FP5 version list

PG-FP5	Version
Programming GUI for PG-FP5	V2.01 or later
Firmware for PG-FP5	V2.01 or later
FPGA for PG-FP5	V2 or later

<Version confirmation>

- Programming GUI: Displayed by selecting [About FP5…] from the [Help] menu
- Firmware: Displayed by selecting [Reset] from the [Programmer] menu
- FPGA: Displayed by selecting [Reset] from the [Programmer] menu

2. Notes

a. Please set up programming GUI for PG-FP5 as follows.

Communication system setup

Communication port of Device	Port	Speed
UARTA0	UART-ch0	9600,19200,31250,38400,57600,76800,115200, 128000,153600,500000Baud
CSIB0	SIO-ch0 (70F3xxx_CSI0.pr5)	9.8kHz～5000kHz
CSIB0+HS	SIO-H/S (70F3xxx_CSI0.pr5)	9.8kHz～5000kHz
CSIB3	SIO-ch0 (70F3xxx_CSI3.pr5)	9.8kHz～5000kHz
CSIB3+HS	SIO-H/S (70F3xxx_CSI3.pr5)	9.8kHz～5000kHz

Supply oscillator setup

On Target check box	Supply origin	Frequency	Multiply rate
Check box is selected [Note1]	External oscillation circuit	$3.0MHz \leqq fx \leqq 6.0MHz$ [Note2]	PLL mode 8.00
		$6.0MHz < fx \leqq 10.0MHz$ [Note2]	PLL mode 4.00

Note1) Please don't use programmer clock.

Note2) Please refer to the user's manual of a device for Operation Conditions.

2.20   PR5-70F3537 (V850E2/Dx4, V850E2/Dx4-H)

2.20.1   Correspondence version and notes of PG-FP5

1. Correspondence version

The correspondence of the version of this parameter file and PG-FP5 is as follows. Please use it in this combination.

Correspondence PG-FP5 version list

PG-FP5	Version
Programming GUI for PG-FP5	V2.05 or later
Firmware for PG-FP5	V2.05 or later
FPGA for PG-FP5	V2 or later

<Version confirmation>

- Programming GUI: Displayed by selecting [About FP5…] from the [Help] menu
- Firmware: Displayed by selecting [Reset] from the [Programmer] menu
- FPGA: Displayed by selecting [Reset] from the [Programmer] menu

2. Notes

a. Please set up programming GUI for PG-FP5 as follows.

Communication system setup

Communication port of Device	Port	Speed
FLUR0	UART-ch0	115200,250000,500000,1MBaud
FLCS0	SIO-ch0	9.8kHz～5000kHz

Supply oscillator setup

On Target check box	Supply origin	Frequency	Multiply rate
Check box is selected	External oscillation circuit	Note	Note

Note) Please refer to the user's manual of a device for Operation Conditions.

b. It is not possible to write it by supplying power from the flash programmer. Please supply power from the outside.

2.21   PR5-70F4012 (V850E2/Fx4), PR5-70F3545 (V850E2/Fx4-M)

2.21.1   Correspondence version and notes of PG-FP5

1. Correspondence version

The correspondence of the version of this parameter file and PG-FP5 is as follows. Please use it in this combination.

Correspondence PG-FP5 version list

PG-FP5	Version
Programming GUI for PG-FP5	V2.05 or later
Firmware for PG-FP5	V2.05 or later
FPGA for PG-FP5	V2 or later

<Version confirmation>

• Programming GUI: Displayed by selecting [About FP5…] from the [Help] menu
• Firmware: Displayed by selecting [Reset] from the [Programmer] menu
• FPGA: Displayed by selecting [Reset] from the [Programmer] menu

2. Notes

a. Please set up programming GUI for PG-FP5 as follows.

Communication system setup

Communication port of Device	Port	Speed
FLUR0	UART-ch0	115200,250000,500000,1MBaud
FLCS0	SIO-ch0	9.8kHz～5000kHz

Supply oscillator setup

On Target check box	Supply origin	Frequency	Multiply rate
Check box is selected	External oscillation circuit	$fx = 4.0MHz$ [Note]	PLL mode 20.00
		$4.0MHz < fx \leq 5.0MHz$ [Note]	PLL mode 16.00
		$5.0MHz < fx \leq 8.0MHz$ [Note]	PLL mode 10.00
		$8.0MHz < fx \leq 16.0MHz$ [Note]	PLL mode 5.00
		$16.0MHz < fx \leq 20.0MHz$ [Note]	PLL mode 4.00

Note) Please refer to the user's manual of a device for Operation Conditions.

2.22 PR5-70F3592 (V850E2/Fx4-G)

2.22.1 Correspondence version and notes of PG-FP5

1. Correspondence version

The correspondence of the version of this parameter file and PG-FP5 is as follows. Please use it in this combination.

Correspondence PG-FP5 version list

PG-FP5	Version
Programming GUI for PG-FP5	V2.07 or later
Firmware for PG-FP5	V2.07 or later
FPGA for PG-FP5	V4 or later

<Version confirmation>

- Programming GUI: Displayed by selecting [About FP5…] from the [Help] menu
- Firmware: Displayed by selecting [Reset] from the [Programmer] menu
- FPGA: Displayed by selecting [Reset] from the [Programmer] menu

2. Notes

a. Please set up programming GUI for PG-FP5 as follows.

Communication system setup

Communication port of Device	Port	Speed
FLUR0	UART-ch0	115200,250000,500000,1MBaud
FLCS0	SIO-ch0	9.8kHz〜5000kHz

Supply oscillator setup (UPD70F3592)

On Target check box	Supply origin	Frequency	Multiply rate
Check box is selected	External oscillation circuit	fx=4.0MHz Note	PLL mode 20.00
		4.0MHz＜fx≦5.0MHz Note	PLL mode 16.00
		5.0MHz＜fx≦8.0MHz Note	PLL mode 10.00
		8.0MHz＜fx≦16.0MHz Note	PLL mode 5.00
		16.0MHz＜fx≦20.0MHz Note	PLL mode 4.00

Supply oscillator setup (Except UPD70F3592)

On Target check box	Supply origin	Frequency	Multiply rate
Check box is selected	External oscillation circuit	fx=4.0MHz Note	PLL mode 16.00
		4.0MHz＜fx≦5.0MHz Note	PLL mode 9.00
		5.0MHz＜fx≦8.0MHz Note	PLL mode 8.00
		8.0MHz＜fx≦16.0MHz Note	PLL mode 4.00
		16.0MHz＜fx≦20.0MHz Note	PLL mode 1.00

Note) Please refer to the user's manual of a device for Operation Conditions.

2.23   PR5-70F3585 (V850E2/Fx4-L)

2.23.1   Correspondence version and notes of PG-FP5

1. Correspondence version
The correspondence of the version of this parameter file and PG-FP5 is as follows. Please use it in this combination.
Correspondence PG-FP5 version list

PG-FP5	Version
Programming GUI for PG-FP5	V2.07 or later
Firmware for PG-FP5	V2.07 or later
FPGA for PG-FP5	V4 or later

<Version confirmation>
- Programming GUI: Displayed by selecting [About FP5…] from the [Help] menu
- Firmware: Displayed by selecting [Reset] from the [Programmer] menu
- FPGA: Displayed by selecting [Reset] from the [Programmer] menu

2. Notes
a. Please set up programming GUI for PG-FP5 as follows.
Communication system setup

Communication port of Device	Port	Speed
FLUR0	UART-ch0	115200,250000,500000,1MBaud
FLCS0	SIO-ch0	9.8kHz～5000kHz

Supply oscillator setup (UPD70F3579, UPD70F3580, UPD70F3584, UPD70F3585)

On Target check box	Supply origin	Frequency	Multiply rate
Check box is selected	External oscillation circuit	$fx=4.0MHz$ [Note]	PLL mode 16.00
		$4.0MHz < fx \leq 5.0MHz$ [Note]	PLL mode 9.00
		$5.0MHz < fx \leq 8.0MHz$ [Note]	PLL mode 8.00
		$8.0MHz < fx \leq 16.0MHz$ [Note]	PLL mode 4.00
		$16.0MHz < fx \leq 20.0MHz$ [Note]	PLL mode 1.00

Supply oscillator setup (Except UPD70F3579, UPD70F3580, UPD70F3584, UPD70F3585)

On Target check box	Supply origin	Frequency	Multiply rate
Check box is selected	External oscillation circuit	$fx=4.0MHz$ [Note]	PLL mode 12.00
		$4.0MHz < fx \leq 5.0MHz$ [Note]	PLL mode 9.00
		$5.0MHz < fx \leq 8.0MHz$ [Note]	PLL mode 5.00
		$8.0MHz < fx \leq 16.0MHz$ [Note]	PLL mode 2.00
		$16.0MHz < fx \leq 20.0MHz$ [Note]	PLL mode 1.00

Note) Please refer to the user's manual of a device for Operation Conditions.

2.24 PR5-70F4155 (V850E2/Px4-L), PR5-70F4159 (V850E2/PG4-S)

2.24.1 Correspondence version and notes of PG-FP5

1. Correspondence version

The correspondence of the version of this parameter file and PG-FP5 is as follows. Please use it in this combination.

Correspondence PG-FP5 version list

PG-FP5	Version
Programming GUI for PG-FP5	V2.07 or later
Firmware for PG-FP5	V2.07 or later
FPGA for PG-FP5	V4 or later

<Version confirmation>

- Programming GUI: Displayed by selecting [About FP5…] from the [Help] menu
- Firmware: Displayed by selecting [Reset] from the [Programmer] menu
- FPGA: Displayed by selecting [Reset] from the [Programmer] menu

2. Notes

a. Please set up programming GUI for PG-FP5 as follows.

Communication system setup

Communication port of Device	Port	Speed
FLUR	UART-ch0	115200,250000,500000,1MBaud
FLCS	SIO-ch0	9.8kHz～5000kHz

Supply oscillator setup

On Target check box	Supply origin	Frequency	Multiply rate
Check box is selected	External oscillation circuit	Note	Note

Note) Depends on the operating conditions of the option byte settings. Please refer to the user's manual for the device.

2.25   PR5-70F4018 (V850E2/Sx4-H)

2.25.1   Correspondence version and notes of PG-FP5

1. Correspondence version

The correspondence of the version of this parameter file and PG-FP5 is as follows. Please use it in this combination.

Correspondence PG-FP5 version list

PG-FP5	Version
Programming GUI for PG-FP5	V2.05 or later
Firmware for PG-FP5	V2.05 or later
FPGA for PG-FP5	V2 or later

<Version confirmation>

• Programming GUI: Displayed by selecting [About FP5…] from the [Help] menu
• Firmware: Displayed by selecting [Reset] from the [Programmer] menu
• FPGA: Displayed by selecting [Reset] from the [Programmer] menu

2. Notes

a. Please set up programming GUI for PG-FP5 as follows.

Communication system setup

Communication port of Device	Port	Speed
FLUR0	UART-ch0	115200,250000,500000,1MBaud
FLCS0	SIO-ch0	9.8kHz～5000kHz

Supply oscillator setup

On Target check box	Supply origin	Frequency	Multiply rate
Check box is selected	External oscillation circuit	$fx = 4.0MHz$ [Note]	PLL mode 40.00
		$4.0MHz < fx \leq 5.0MHz$ [Note]	PLL mode 32.00
		$5.0MHz < fx \leq 8.0MHz$ [Note]	PLL mode 20.00
		$8.0MHz < fx \leq 16.0MHz$ [Note]	PLL mode 10.00
		$16.0MHz < fx \leq 20.0MHz$ [Note]	PLL mode 8.00

Note) Please refer to the user's manual of a device for Operation Conditions.

2.26 PR5-R8C3X (R8C/3x), PR5-R8C5X (R8C/5x), PR5-R8CLX (R8C/Lx)

2.26.1 Correspondence version and notes of PG-FP5

1. Correspondence version
The correspondence of the version of this parameter file and PG-FP5 is as follows. Please use it in this combination.
Correspondence PG-FP5 version list

PG-FP5	Version
Programming GUI for PG-FP5	V2.09 or later
Firmware for PG-FP5	V2.09 or later
FPGA for PG-FP5	V4 or later

<Version confirmation>
- Programming GUI: Displayed by selecting [About FP5…] from the [Help] menu
- Firmware: Displayed by selecting [Reset] from the [Programmer] menu
- FPGA: Displayed by selecting [Reset] from the [Programmer] menu

2. Notes
a. Please set up programming GUI for PG-FP5 as follows.
Communication system setup

Communication port of Device	Port	Speed
Standard serial I/O mode 3	UART I/O mode3	9600,19200,38400,57600,115200,250000,500000Baud

Supply oscillator setup

On Target check box	Supply origin	Frequency	Multiply rate
Can't be changed	Internal oscillation circuit	Can't be changed	Can't be changed

b. For the R8C/Lx, if microcontroller is programmed by 2.7V≦VCC≦5.5V, you must use the parameter file of R5F2LAxxx.pr5. The other parameter file of R5F2LAxxx_LV.pr5 is used by 1.8V≦VCC＜2.7V.

2.27   PR5-SH7250 (SH7253)

2.27.1   Correspondence version and notes of PG-FP5

1. Correspondence version

The correspondence of the version of this parameter file and PG-FP5 is as follows. Please use it in this combination.

Correspondence PG-FP5 version list

PG-FP5	Version
Programming GUI for PG-FP5	V2.11 or later
Firmware for PG-FP5	V2.11 or later
FPGA for PG-FP5	V4 or later

<Version confirmation>

- Programming GUI: Displayed by selecting [About FP5…] from the [Help] menu
- Firmware: Displayed by selecting [Reset] from the [Programmer] menu
- FPGA: Displayed by selecting [Reset] from the [Programmer] menu

2. Notes

a. Please set up programming GUI for PG-FP5 as follows.

Supply oscillator setup

On Target check box	Supply origin	Frequency	Multiply rate	Pin Setting
Can't be changed	External oscillation circuit	16.0MHz≦fx≦20.0MHz	PLL mode (CKM) 6.00 (CKP) 1.00	MD_CLK0: 0 MD_CLKP: 0
			PLL mode (CKM) 6.00 (CKP) 2.00	MD_CLK0: 0 MD_CLKP: 1
			PLL mode (CKM) 8.00 (CKP) 1.00	MD_CLK0: 1 MD_CLKP: 0
			PLL mode (CKM) 8.00 (CKP) 2.00	MD_CLK0: 1 MD_CLKP: 1

Communication system setup

Communication port of Device	Port	Speed
SCI_A	UART	By setting the frequency and Multiply rate, you can select the communication speed can be selected.

2.28   PR5-SH72AX (SH72Ax)

2.28.1   Correspondence version and notes of PG-FP5

1. Correspondence version

The correspondence of the version of this parameter file and PG-FP5 is as follows. Please use it in this combination.

Correspondence PG-FP5 version list

PG-FP5	Version
Programming GUI for PG-FP5	V2.11 or later
Firmware for PG-FP5	V2.11 or later
FPGA for PG-FP5	V4 or later

<Version confirmation>

- Programming GUI: Displayed by selecting [About FP5…] from the [Help] menu
- Firmware: Displayed by selecting [Reset] from the [Programmer] menu
- FPGA: Displayed by selecting [Reset] from the [Programmer] menu

2. Notes

a. Please set up programming GUI for PG-FP5 as follows.

Supply oscillator setup (SH72AW, SH72AY)

On Target check box	Supply origin	Frequency	Multiply rate
Can't be changed	External oscillation circuit	fx=20.0MHz	PLL mode (CKM) 4.00 (CKP) 2.00

Supply oscillator setup (SH72A0)

On Target check box	Supply origin	Frequency	Multiply rate
Can't be changed	External oscillation circuit	fx=8.0MHz, 10.0MHz	PLL mode (CKM) 8.00 (CKP) 4.00

Supply oscillator setup (SH72A2)

On Target check box	Supply origin	Frequency	Multiply rate
Can't be changed	External oscillation circuit	fx=8.0MHz, 10.0MHz	PLL mode (CKM) 10.00 (CKP) 5.00

Communication system setup

Communication port of Device	Port	Speed
SCI1	UART	By setting the frequency and Multiply rate, you can select the communication speed can be selected.

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