CUSTOMER NOTIFICATION

Parameter Files of PRM78F9234 (V1.05) Supplement Documentation

Be sure to read this document before using the product.

1. The contents of the package

The kind and correspondence device of the parameter file included in this package (PRM78F9234) are as follows.

Table1-1 The contents of the package, and the correspondence device list

Package version	Microcontrollers	Parameter file		Correspondence device	
		Name	Version		
V1.05	78K0S/KU1+	78F9200.prm	V1.02	UPD78F9200	
		78F9201.prm	V1.02	UPD78F9201	
		78F9202.prm	V1.02	UPD78F9202	
	78K0S/KY1+	78F9210.prm	V1.02	UPD78F9210	
		78F9211.prm	V1.02	UPD78F9211	
		78F9212.prm	V1.02	UPD78F9212	
		78F9510.prm	V1.00	UPD78F9510	*
		78F9511.prm	V1.00	UPD78F9511	*
		78F9512.prm	V1.00	UPD78F9512	*
	78K0S/KA1+	78F9221.prm	V1.02	UPD78F9221	
		78F9222.prm	V1.02	UPD78F9222	
		78F9521.prm	V1.00	UPD78F9521	*
		78F9522.prm	V1.00	UPD78F9522	*
	78K0S/KB1+	78F9232.prm	V1.02	UPD78F9232	
		78F9234.prm	V1.02	UPD78F9234	
		78F9532.prm	V1.00	UPD78F9532	*
		78F9534.prm	V1.00	UPD78F9534	*

Note "*" is parameter file that was changed or added from the old package version.
Please refer to the change point from the old package version Chapter 4 for details.

2. Correspondence version and notes of the flash programmer

The flash programmer corresponding to this parameter file becomes as follows.

Please refer to the chapter of each flash programmer on the next page for use.

- PG-FP4
- PG-FPL2
- MINICUBE2

Please refer to the user's manual for basic use concerning each flash programmer.

In addition, the latest version of each flash programmer's programming GUI and firmware is opened to the public on the homepage of NEC Electronics in the following address. Please download and use the latest version.

http://www.necel.com/micro/ods/jpn/ (Japanese site)

http://www.necel.com/micro/ods/eng/ (English site)

2-1. Correspondence version and notes of PG-FP4

1. Correspondence version

The correspondence of the version of this parameter file and PG-FP4 is as follows. Please use it in this combination.

Table2-1 Correspondence PG-FP4 version list

PG-FP4	Version
Control code	G or later
Programming GUI for PG-FP4	V2.15 or later
Firmware for PG-FP4	V1.33 or later

<Version confirmation>

- Control code: The “control code” is the second digit from the left in the 10-digit serial number in the warranty supplied with the product you purchased. If the product has been upgraded, a label indicating the new version is attached to the product and the x in V-UP LEVEL x on this label indicates the control code.
- Programming GUI: Displayed by selecting [About] from the [Help] menu
- Firmware: Displayed by selecting [Reset] from the [Programmer] menu

2. Notes

A. When you use Programming GUI for PG-FP4, please set up a communication system as follows.
In addition, please refer to PG-FP4 Users manual about the usage of PG-FP4.

Table2-2 Communication system setup of Programming GUI for PG-FP4

Communication port of Device	Communication port of PG-Fp4
Single wired UART	UART-ch0

B. Multiply rate need not be changed.

2-2. Correspondence version and notes of PG-FPL2

The correspondence of the version of this parameter file and PG-FPL2 is as follows. Please use it in this combination.

Table2-3 Correspondence PG-FPL2 version list

PG-FPL2	Version
Control code	A or later
Programming GUI for PG-FPL2	V1.00 or later

<Version confirmation>

- Control code: The “control code” is indicated by “X” in No. X marked on the main unit board.
- Programming GUI: Displayed by selecting [About FPL2…] from the [Help] menu

2. Notes

A. When you use Programming GUI for PG-FPL2, please set up a communication system as follows.

Table2-4 Communication system setup of Programming GUI for PG-FPL2

Communication port of Device	Communication port of PG-FPL2
Single wired UART	UART-ch0

B. Multiply rate need not be changed.

2-3. Correspondence version and notes of MINICUBE2

The correspondence of the version of this parameter file and MINICUBE2 is as follows. Please use it in this combination.

Table2-5 Correspondence MINICUBE2 version list

MINICUBE2	Version
Control code	A or later
Programming GUI for MINICUBE2 QB-Programmer	V1.00 or later
Firmware for MINICUBE2	V3.00 or later

<Version confirmation>

- Control code: The “control code” is indicated by “X” in No. X marked on the main unit board.
- Programming GUI: Displayed in [Programmer] frame of the main window. (QB-Programmer)
- Firmware: Displayed in [Programmer] frame of the main window. (Firmware)

2. NOTES

A. When you use Programming GUI for MINICUBE2 (QB-Programmer), please set up a communication system as follows.

Table2-6 Communication system setup of Programming GUI for MINICUBE2

Communication port of Device	Communication port of MINICUBE2
Single wired UART	UART-ch0

B. Multiply rate need not be changed.

3. The example of connection used the flash Adapter (FA series)

The example of connection in the case of communicating using a flash adapter is shown below.

Note FA series is a product of Naito Densei Machida Mfg. Co., Ltd.

3-1. 78K0S/KU1+ flash adapter (FA-78F9202MA-CAC-MX)

As for FA-78F9202MA-CAC-MX, wiring of Table 3-1 is carried out.

Table3-1 Connection table of the flash adapter (FA-78F9202MA-CAC-MX)

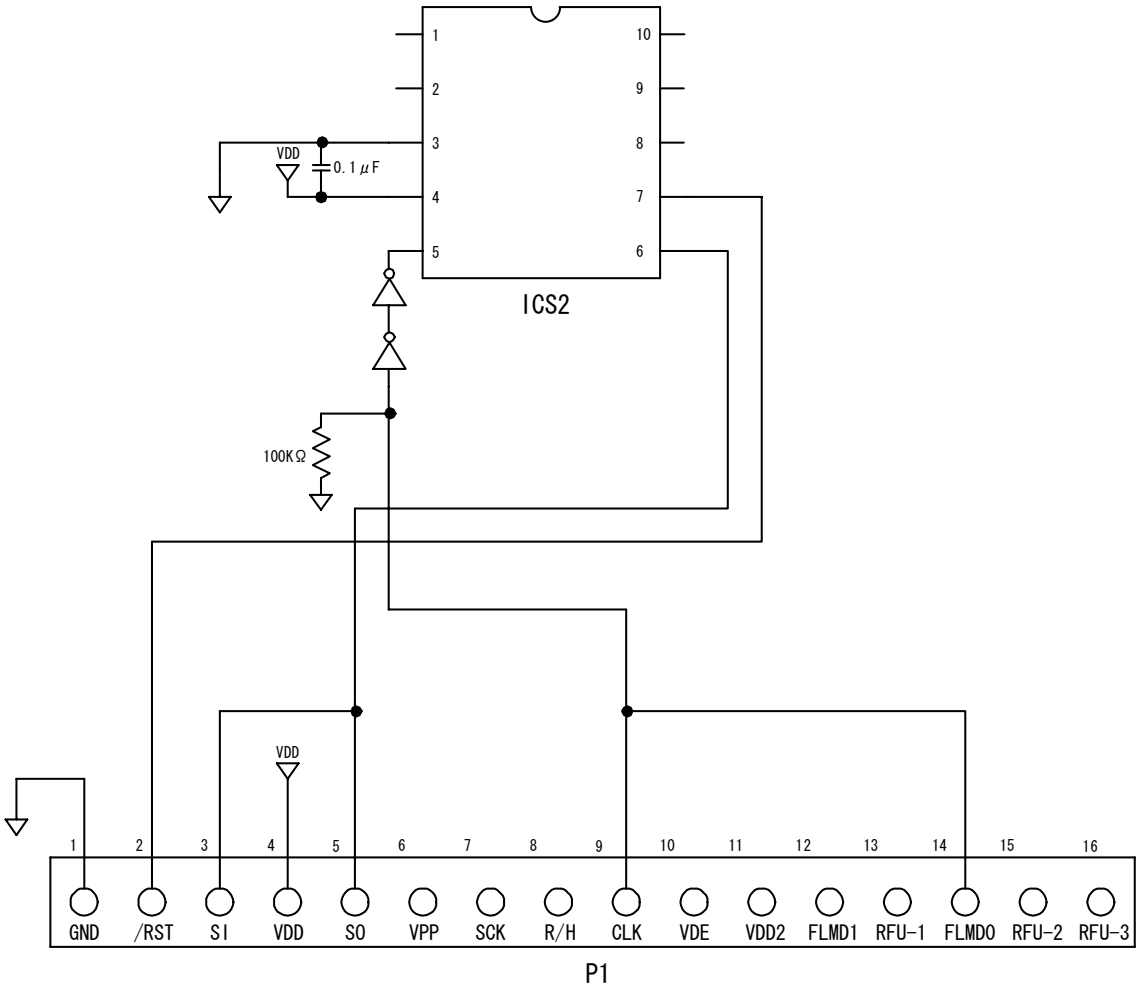
Flash programmer			78K0S/KU1+	
Signal	I/O	Function	Pin name	Pin No.
SI/RxD	I	Serial data input	P22/X2/ANI2 *2	6
SO/TxD	O	Serial data output	P22/X2/ANI2	6
CLK	O	CPU clock	P23/X1/ANI3 *1	5
/RESET	O	Reset	P34/$\overline{\text{RESET}}$	7
FLMD0	O	Flash mode0	P23/X1/ANI3 *2	5
VDD	-	VDD	VDD	4
GND	-	Ground	VSS	3

*1 After it is short-circuited, CLK and FLMD0 are input to CLKIN.

And, connect the X2 terminal of FA with device X1 terminal.

*2 When using IIC/78K0S/KX1+ Adapter, it is not necessary to wire.

Figure3-1 Example of connection of the flash adapter (FA-78F9202MA-CAC-MX)



3-2. 78K0S/KY1+ flash adapter (FA-78F9212GR-JJG-MX)

As for FA-78F9212GR-JJG-MX, wiring of Table 3-2 is carried out.

Table3-2 Connection table of the flash adapter (FA-78F9212GR-JJG-MX)

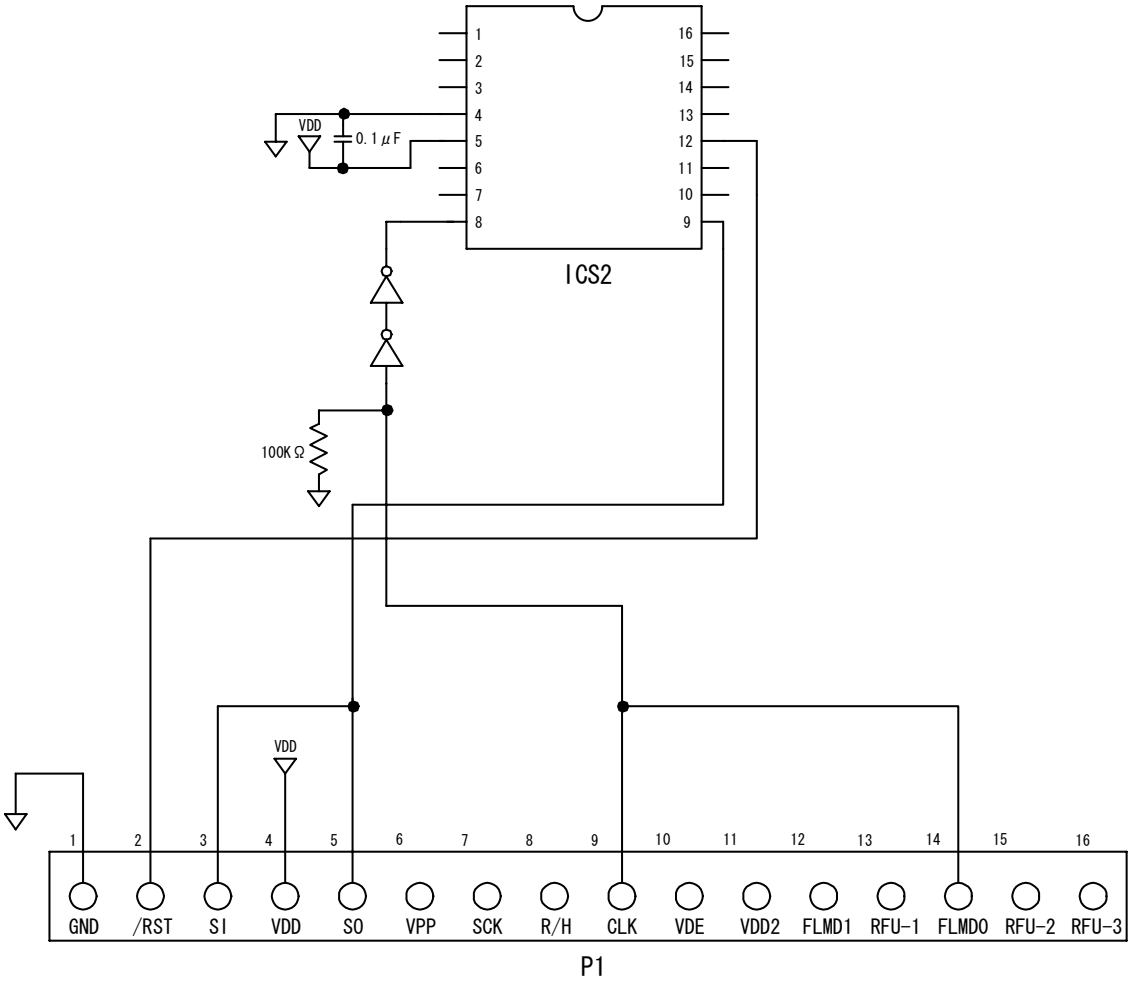
Flash programmer			78K0S/KY1+	
Signal	I/O	Function	Pin name	Pin No.
SI/RxD	I	Serial data input	P22/X2/ANI2 *2	9
SO/TxD	O	Serial data output	P22/X2/ANI2	9
CLK	O	CPU clock	P23/X1/ANI3 *1	8
/RESET	O	Reset	P34/$\overline{\text{RESET}}$	12
FLMD0	O	Flash mode0	P23/X1/ANI3 *2	8
VDD	-	VDD	VDD	5
GND	-	Ground	VSS	4

*1 After it is short-circuited, CLK and FLMD0 are input to CLKIN.

And, connect the X2 terminal of FA with device X1 terminal.

*2 When using IIC/78K0S/KX1+ Adapter, it is not necessary to wire.

Figure 3-2 Example of connection of the flash adapter (FA-78F9212GR-JJG-MX)



3-3. 78K0S/KA1+ flash adapter (FA-78F9222MC-5A4-MX)

As for FA-78F9222MC-5A4-MX, wiring of Table 3-3 is carried out.

Table3-3 Connection table of the flash adapter (FA-78F9222MC-5A4-MX)

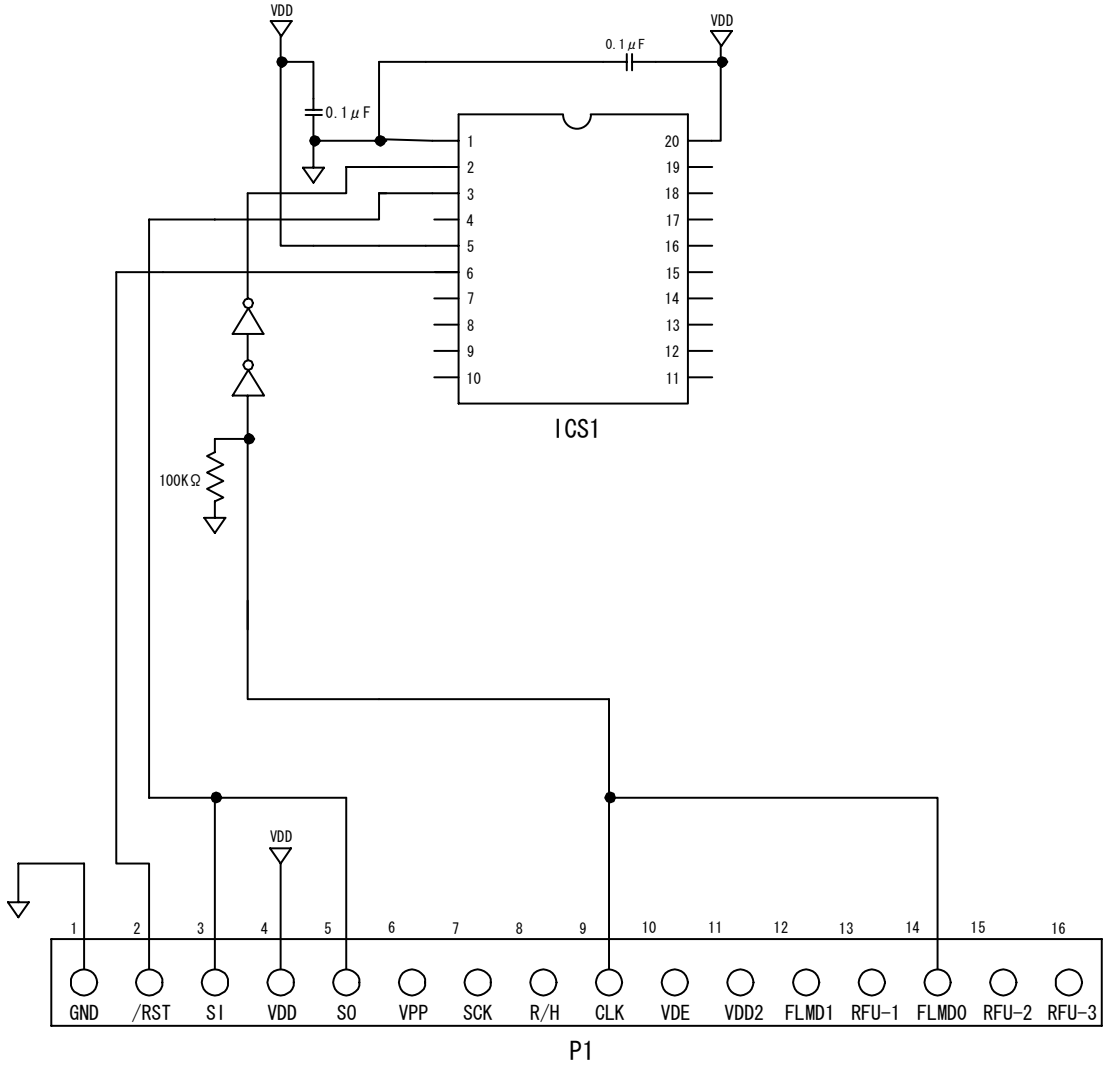
Flash programmer			78K0S/KA1+	
Signal	I/O	Function	Pin name	Pin No.
SI/RxD	I	Serial data input	P22/X2 *2	3
SO/TxD	O	Serial data output	P22/X2	3
CLK	O	CPU clock	P23/X1 *1	2
/RESET	O	Reset	P34/$\overline{\text{RESET}}$	6
FLMD0	O	Flash mode0	P23/X1 *2	2
VDD	-	VDD	VDD	5
			AVREF	20
GND	-	Ground	VSS	1

*1 After it is short-circuited, CLK and FLMD0 are input to CLKIN.

And, connect the X2 terminal of FA with device X1 terminal.

*2 When using IIC/78K0S/KX1+ Adapter, it is not necessary to wire.

Figure3-3 Example of connection of the flash adapter (FA-78F9222MC-5A4-MX)



3-4. 78K0S/KB1+ flash adapter (FA-78F9234MC-5A4-MX)

As for FA-78F9234MC-5A4-MX, wiring of Table 3-4 is carried out.

Table3-4 Connection table of the flash adapter (FA-78F9234MC-5A4-MX)

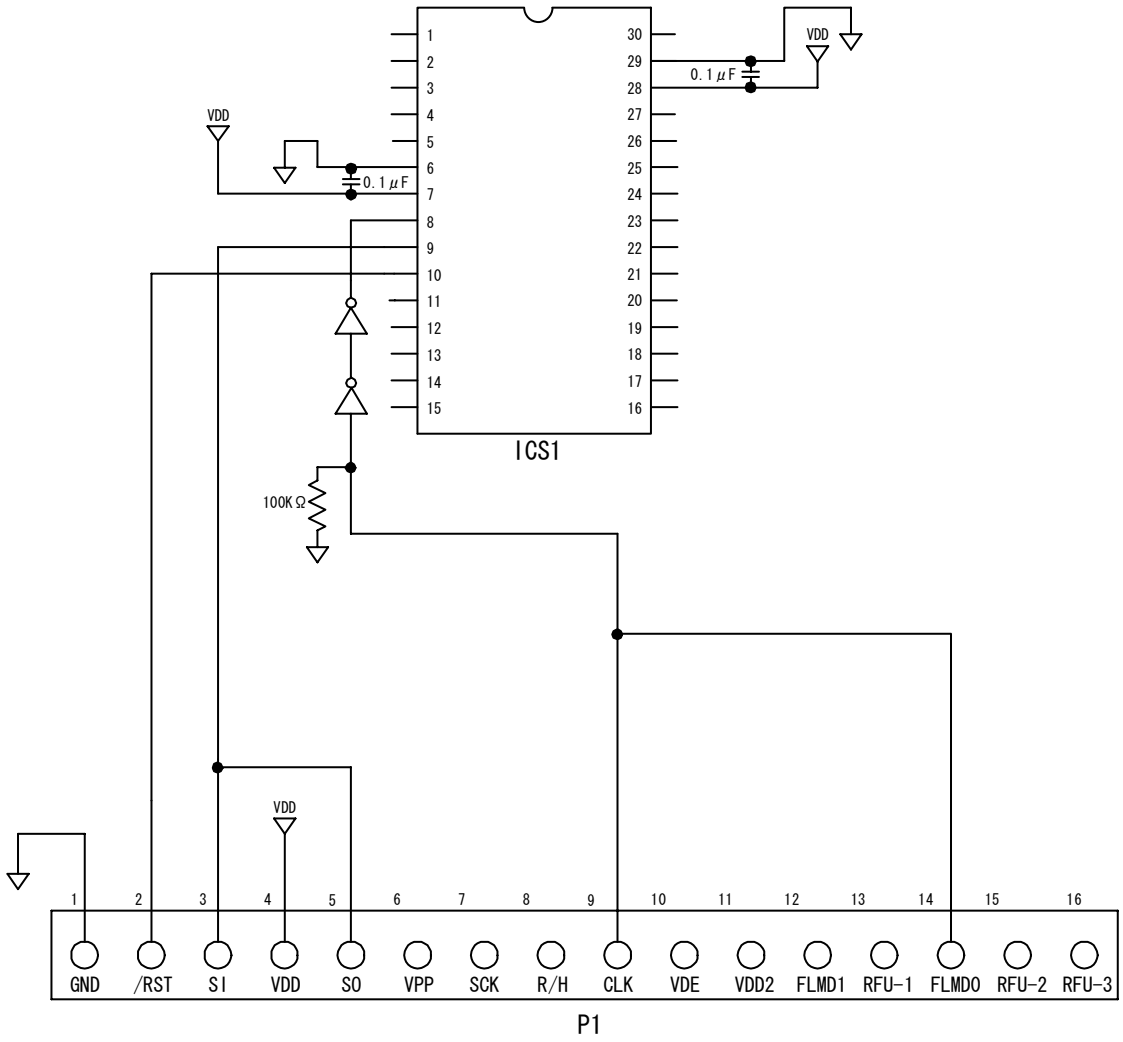
Flash programmer			78K0S/KB1+	
Signal	I/O	Function	Pin name	Pin No.
SI/RxD	I	Serial data input	P22/X2/ANI2 *2	9
SO/TxD	O	Serial data output	P22/X2/ANI2	9
CLK	O	CPU clock	P23/X1/ANI3 *1	8
/RESET	O	Reset	P34/$\overline{\text{RESET}}$	10
FLMD0	O	Flash mode0	P23/X1/ANI3 *2	8
VDD	-	VDD	VDD	7
			AVREF	28
GND	-	Ground	VSS	6
			AVSS	29

*1 After it is short-circuited, CLK and FLMD0 are input to CLKIN.

And, connect the X2 terminal of FA with device X1 terminal.

*2 When using IIC/78K0S/KX1+ Adapter, it is not necessary to wire.

Figure 3-4 Example of connection of the flash adapter (FA-78F9234MC-5A4-MX)



4. Change point from old package version

The change point of V1.05 is described from V1.04 of PRM78F9234 as follows.

・The parameter file for 78F9510, 78F9511, 78F9512,78F9521, 78F9522, 78F9532 and 78F9534 was added.