CUSTOMER NOTIFICATION

Parameter Files of PRM78F0397 (V1.02) 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 (PRM78F0397) are as follows.

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

Package version	Subseries	Parameter file		Correspondence device	
		Name	Version		
V1.02	78K0/LE2	78F0361.prm	V1.02	UPD78F0361	*
		78F0362.prm	V1.02	UPD78F0362	*
		78F0363.prm	V1.02	UPD78F0363	*
		78F0363D.prm	V1.02	UPD78F0363D	*
	78K0/LF2	78F0372.prm	V1.02	UPD78F0372	*
		78F0373.prm	V1.02	UPD78F0373	*
		78F0374.prm	V1.02	UPD78F0374	*
		78F0375.prm	V1.02	UPD78F0375	*
		78F0376.prm	V1.02	UPD78F0376	*
		78F0376D.prm	V1.02	UPD78F0376D	*
		78F0382.prm	V1.02	UPD78F0382	*
		78F0383.prm	V1.02	UPD78F0383	*
		78F0384.prm	V1.02	UPD78F0384	*
		78F0385.prm	V1.02	UPD78F0385	*
		78F0386.prm	V1.02	UPD78F0386	*
		78F0386D.prm	V1.02	UPD78F0386D	*
	78K0/LG2	78F0393.prm	V1.02	UPD78F0393	*
		78F0394.prm	V1.02	UPD78F0394	*
		78F0395.prm	V1.02	UPD78F0395	*
		78F0396.prm	V1.02	UPD78F0396	*
		78F0397.prm	V1.02	UPD78F0397	*
		78F0397D.prm	V1.02	UPD78F0397D	*

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-FPL3
- 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/index.html (Japanese site)

http://www.necel.com/micro/ods/eng/index.html (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
CSI10 (Internal oscillator)	CSI-Internal-OSC
UART6 (External oscillator)	UART-Ext-OSC
UART6 (Programmer clock)	UART-Ext-FP4CLK

B. Multiply rate need not be changed.

2-2. Correspondence version and notes of PG-FPL3

The correspondence of the version of this parameter file and PG-FPL3 is as follows. Please use it in this combination.

Table2-3 Correspondence PG-FPL3 version list

PG-FPL3	Version
Control code	A or later
Programming GUI for PG-FPL3	V1.01 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 FPL3…] from the [Help] menu

2. Notes

A. When you use Programming GUI for PG-FPL3, please set up a communication system as follows.

Table2-4 Communication system setup of Programming GUI for PG-FPL3

Communication port of Device	Communication port of PG-FPL3
UART6 (External oscillator)	UART-Ext-OSC *1
UART6 (Programmer clock)	UART-Ext-FPL3CLK *2

*1: Please do not connect CLK line of PG-FPL3 when you use External oscillator.

*2: Please input CLK line of PG-FPL3 in X1 and input the reversing signal through the buffer to X2 when you use Programmer clock.

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	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 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
UART6 (External oscillator)	UART-Ext-OSC
UART6 (Programmer clock)	UART-Ext-QB2CLK

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. 78K0/LE2 flash adapter (FA-78F0363GB-8EU-MX/FA-78F0363GK-UEU-MX)

As for FA-78F0363GB-8EU-MX/FA-78F0363GK-UEU-MX, wiring of Table 3-1 is carried out.

Table3-1 Connection table of the flash adapter (FA-78F0363GB-8EU-MX/FA-78F0363GK-UEU-MX)

Flash programmer			CSI10 (Internal oscillator)		UART6 (Programmer clock)	
Signal	I/O	Function	Pin name	Pin No.	Pin name	Pin No
SI/RxD	I	Serial data input	P12/SO10	48	P13/TXD6	47
SO/TxD	O	Serial data output	P11/SI10/RXD0	49	P14/RXD6	46
SCK	O	Serial clock	P10/SCK10/TXD0	50	-	-
CLK	O	CPU clock	-	-	P121/X1	5
			-	-	P122/X2/EXCLK	4
/RESET	O	Reset	$\overline{\text{RESET}}$	64	$\overline{\text{RESET}}$	64
FLMD0	O	Flash mode0	FLMD0	3	FLMD0	3
VDD	-	VDD	V_{DD}	8	V_{DD}	8
			LV_{DD}	39	LV_{DD}	39
			AV_{DD}	51	AV_{DD}	51
GND	-	Ground	V_{SS}	7	V_{SS}	7
			LV_{SS}	38	LV_{SS}	38
			AV_{SS}	52	AV_{SS}	52

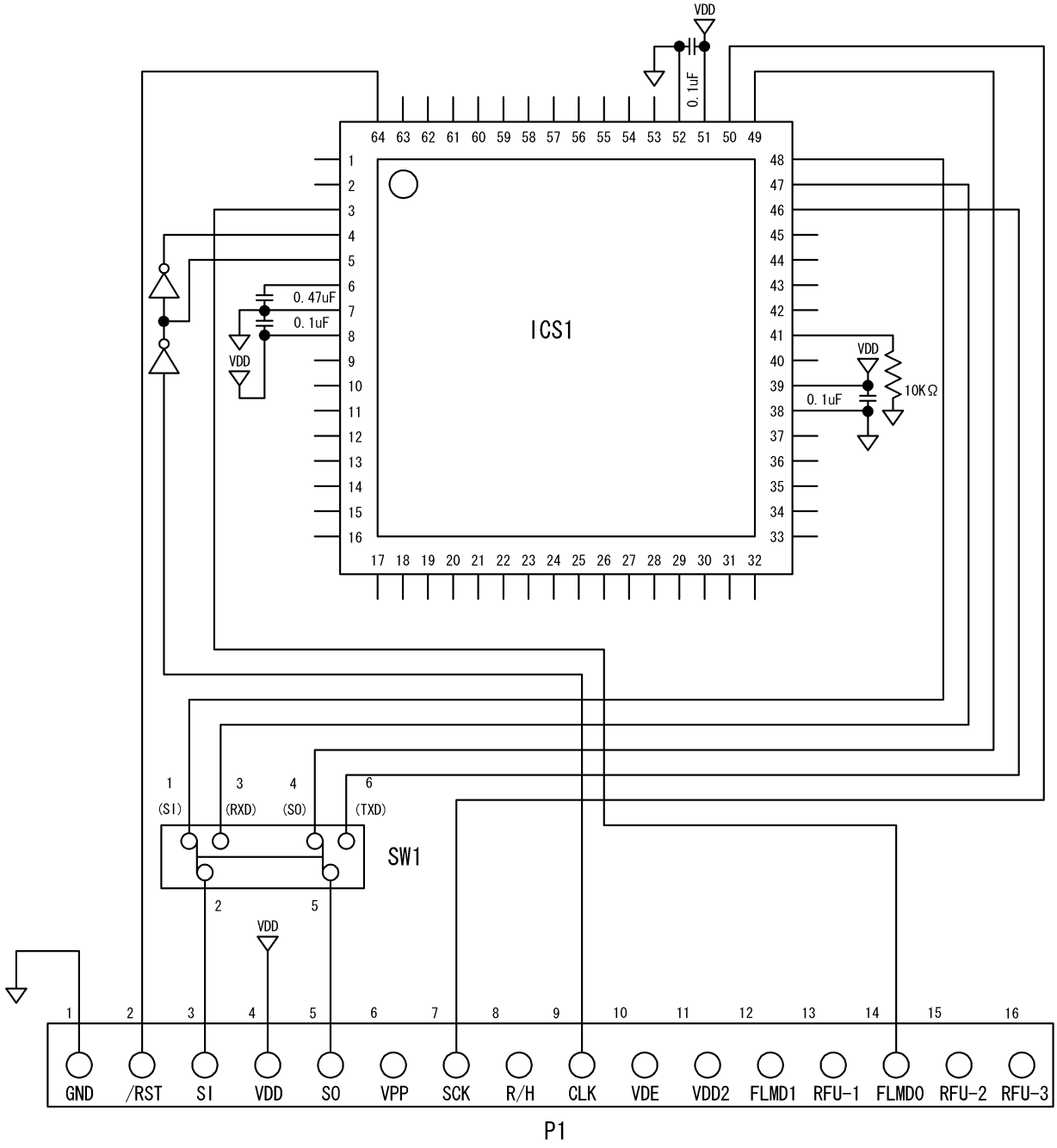
Caution1. CLK inputs the reversing signal to X2 through the buffer.

Caution2. The communication is switched with SW1.

Table3-2 Switch setting of the flash adaptor (FA-78F0363GB-8EU-MX/FA-78F0363GK-UEU-MX)

SW1	UART	NON UART
Communication	UART6 (Programmer clock)	CSI10 (Internal oscillator)

Figure3-1 Example of connection of the flash adapter (FA-78F0363GB-8EU-MX/FA-78F0363GK-UEU-MX)



SW1:

1-2, 4-5	NON UART
2-3, 5-6	UART

3-2. 78K0/LF2 flash adapter (FA-78F0376GK-8EU-MX/FA-78F0376GC-UBT-MX)

As for FA-78F0376GK-8EU-MX/FA-78F0376GC-UBT-MX, wiring of Table 3-3 is carried out.

Table3-3 Connection table of the flash adapter (FA-78F0376GK-8EU-MX/FA-78F0376GC-UBT-MX)

Flash programmer			CSI10 (Internal oscillator)		UART6 (Programmer clock)	
Signal	I/O	Function	Pin name	Pin No.	Pin name	Pin No
SI/RxD	I	Serial data input	P12/SO10	57	P13/TXD6	56
SO/TxD	O	Serial data output	P11/SI10/RXD0	58	P14RXD6	55
SCK	O	Serial clock	P10/SCK10/TXD0	59	-	-
CLK	O	CPU clock	-	-	P121/X1	8
			-	-	P122/X2/EXCLK	7
/RESET	O	Reset	$\overline{\text{RESET}}$	3	$\overline{\text{RESET}}$	3
FLMD0	O	Flash mode0	FLMD0	6	FLMD0	6
VDD	-	VDD	V_{DD}	11	V_{DD}	11
			LV_{DD}	48	LV_{DD}	48
			AV_{DD}	60	AV_{DD}	60
GND	-	Ground	V_{SS}	10	V_{SS}	10
			LV_{SS}	47	LV_{SS}	47
			AV_{SS}	61	AV_{SS}	61

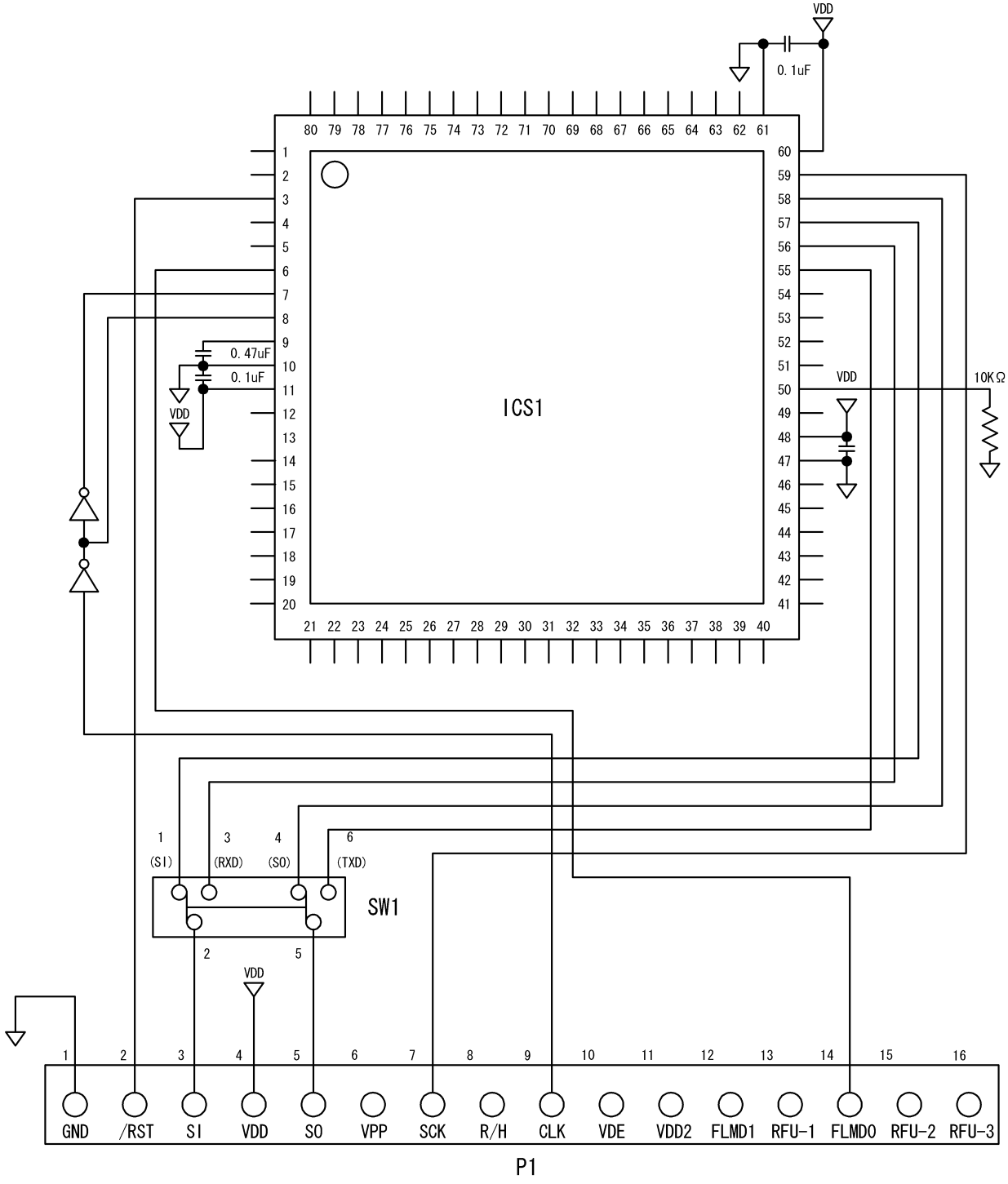
Caution1. CLK inputs the reversing signal to X2 through the buffer.

Caution2. The communication is switched with SW1.

Table3-4 Switch setting of the flash adaptor (FA-78F0376GK-8EU-MX/FA-78F0376GC-UBT-MX)

SW1	UART	NON UART
Communication	UART6 (Programmer clock)	CSI10 (Internal oscillator)

Figure 3-2 Example of connection of the flash adapter (FA-78F0376GK-8EU-MX/FA-78F0376GC-UBT-MX)



SW1:

1-2, 4-5	NON UART
2-3, 5-6	UART

3-3. 78K0/LF2 flash adapter (FA-78F0386GK-8EU-MX/FA-78F0386GC-UBT-MX)

As for FA-78F0386GK-8EU-MX/FA-78F0386GC-UBT-MX, wiring of Table 3-5 is carried out.

Table3-5 Connection table of the flash adapter (FA-78F0386GK-8EU-MX/FA-78F0386GC-UBT-MX)

Flash programmer			CSI10 (Internal oscillator)		UART6 (Programmer clock)	
Signal	I/O	Function	Pin name	Pin No.	Pin name	Pin No
SI/RxD	I	Serial data input	P12/SO10	61	P13/TXD6	62
SO/TxD	O	Serial data output	P11/SI10/RXD0	60	P14RXD6	63
SCK	O	Serial clock	P10/SCK10/TXD0	59	-	-
CLK	O	CPU clock	-	-	P121/X1	5
			-	-	P122/X2/EXCLK	4
/RESET	O	Reset	RESET	80	RESET	80
FLMD0	O	Flash mode0	FLMD0	3	FLMD0	3
VDD	-	VDD	V_{DD}	8	V_{DD}	8
			AV_{DD}	55	AV_{DD}	55
GND	-	Ground	V_{SS}	7	V_{SS}	7
			A V_{SS}	54	A V_{SS}	54

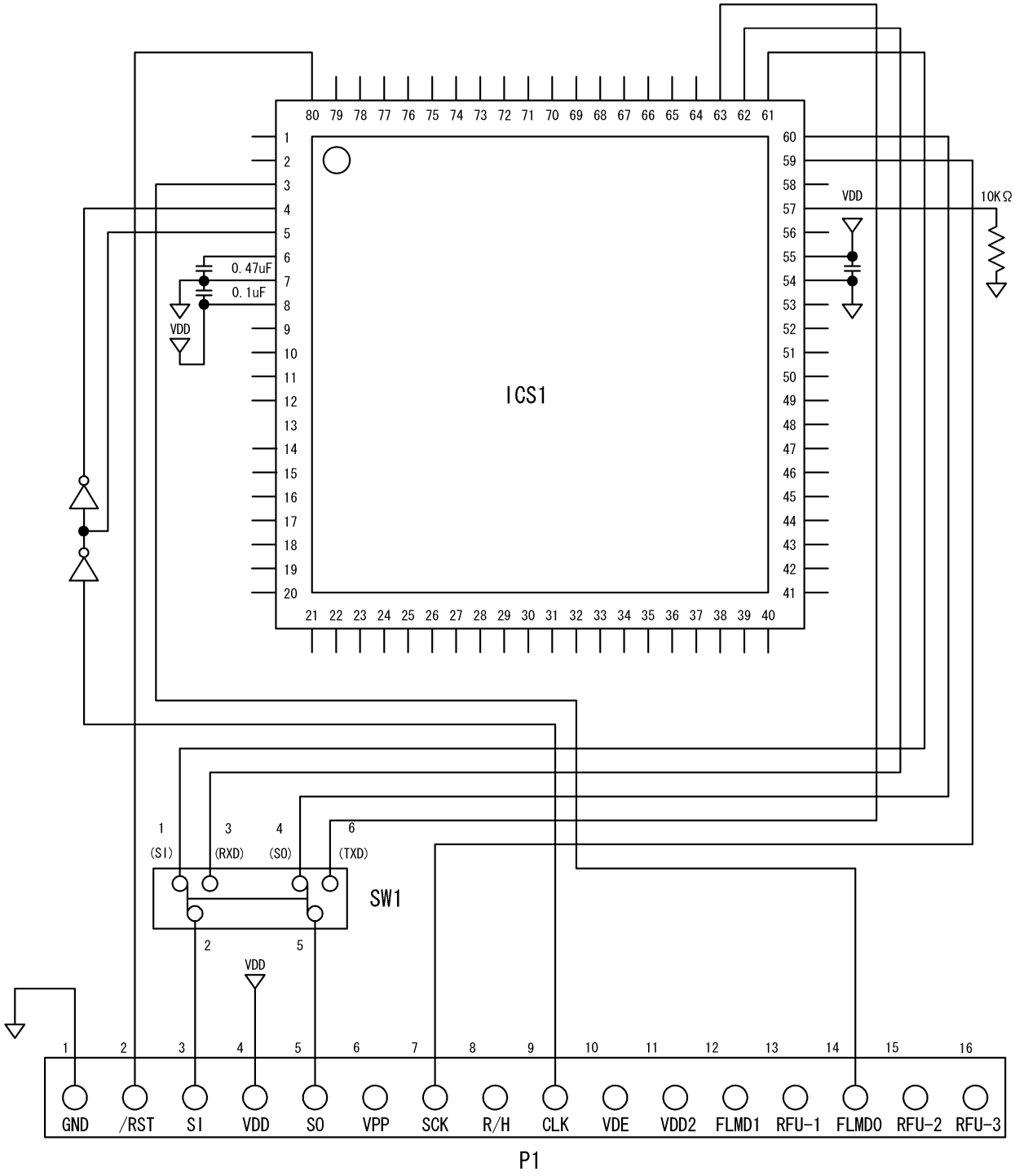
Caution1. CLK inputs the reversing signal to X2 through the buffer.

Caution2. The communication is switched with SW1.

Table3-6 Switch setting of flash adaptor (FA-78F0386GK-8EU-MX/FA-78F0386GC-UBT-MX)

SW1	UART	NON UART
Communication	UART6 (Programmer clock)	CSI10 (Internal oscillator)

Figure3-3 Example of connection of the flash adapter (FA-78F0386GK-8EU-MX/FA-78F0386GC-UBT-MX)



SW1:

1-2, 4-5	NON UART
2-3, 5-6	UART

3-4. 78K0/LG2 flash adapter (FA-78F0397GC-8EU-MX)

As for FA-78F0397GC-8EU-MX, wiring of Table 3-7 is carried out.

Table3-7 Connection table of the flash adapter (FA-78F0397GC-8EU-MX)

Flash programmer			CSI10 (Internal oscillator)		UART6 (Programmer clock)	
Signal	I/O	Function	Pin name	Pin No.	Pin name	Pin No
SI/RxD	I	Serial data input	P12/SO10	74	P13/TXD6	73
SO/TxD	O	Serial data output	P11/SI10/RXD0	75	P14RXD6	72
SCK	O	Serial clock	P10/$\overline{SCK10}$/TXD0	76	-	-
CLK	O	CPU clock	-	-	P121/X1	11
			-	-	P122/X2/EXCLK	10
/RESET	O	Reset	$\overline{RESET}$	6	$\overline{RESET}$	6
FLMD0	O	Flash mode0	FLMD0	9	FLMD0	9
VDD	-	VDD	V_{DD}	14	V_{DD}	14
			LV_{DD}	65	LV_{DD}	65
			AV_{DD}	77	AV_{DD}	77
GND	-	Ground	V_{SS}	13	V_{SS}	13
			LV_{SS}	64	LV_{SS}	64
			A V_{SS}	78	A V_{SS}	78

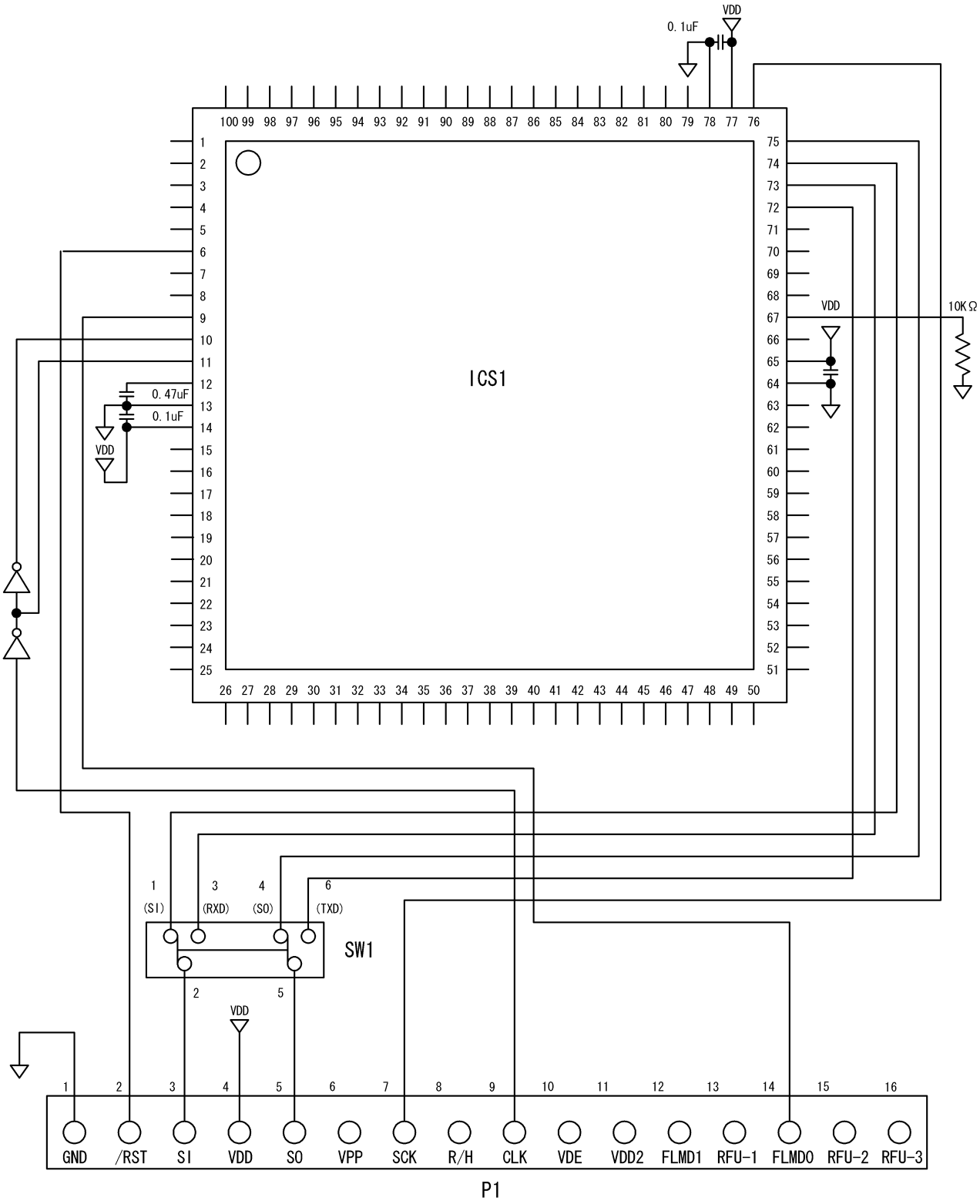
Caution1. CLK inputs the reversing signal to X2 through the buffer.

Caution2. The communication is switched with SW1.

Table3-8 Switch setting of the flash adaptor (FA-78F0397GC-8EU-MX)

SW1	UART	NON UART
Communication	UART6 (Programmer clock)	CSI10 (Internal oscillator)

Figure 3-4 Example of connection of the flash adapter (FA-78F0397GC-8EU-MX)



SW1:

1-2, 4-5	NON UART
2-3, 5-6	UART

4. Change point from old package version

The change point of V1.02 is described from V1.01 of PRM78F0397 as follows.

・The parameter file for 78F0361, 78F0362, 78F0363, 78F0372, 78F0373, 78F0382, 78F0383 and 78F0393 was added.

・Optimization of communication by tuning of parameter value.