

EF3062F-100G User's Guide

Susei Electronics System Co., Ltd
6nd edition issued May, 2002

1. General Description

EF3062F-100G is a parallel writing unit to use to set to EFP-I.

Reading and writing data to MCU Renesas Technology M16C/60, 80 series with built-in Flash memory are enabled by using EF3062F-100G.

IC socket for 100-pin 0.65mm pitch QFP (100P6S-A) is mounted on EF3062F-100G.

<Packing contents>

- 1) EF3062F-100G
- 2) Users guide (this manual)

Fig 1.1 shows the adapter appearance.

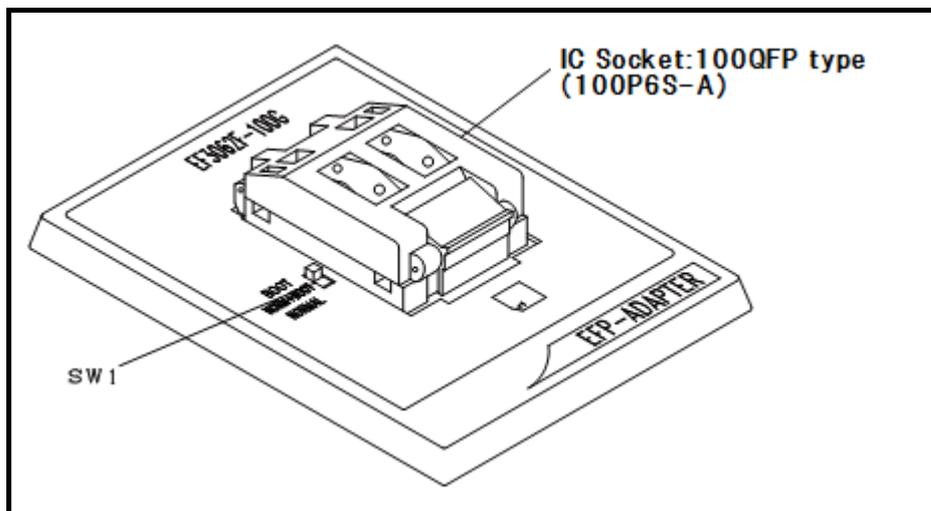


Fig.1.1: Appearance of the EF3062F-100G

2. Insertion Direction of MCU and cleaning of IC socket

2.1 Insertion Direction of MCU

When MCU is inserted, No.1 pin of the IC socket on EF3062F-100G and MCU's No.1 pin should be connected.

The wrong insertion would cause a serious breakage of MCU.

Insertion direction of MCU is shown in Fig.2.1.

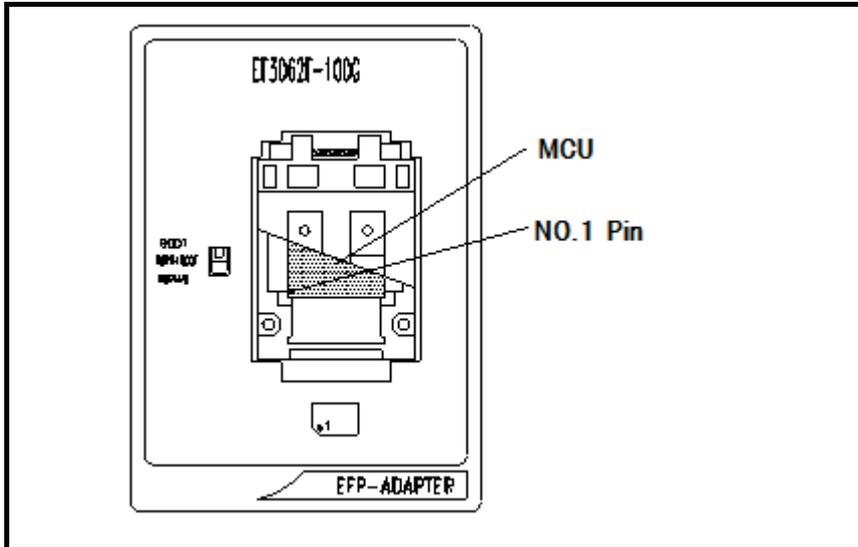


Figure 2.1: Pin Orientation of The socket

2.2 Cleaning of IC Socket

A contact pin inside of the IC socket of the MCU unit might deteriorate and a contact failure might occur because of the number of times used and its age of service. As the contact failure may cause incorrect writing of MCU and malfunction of the writer, please take the below measures.

Though enquiries on contact failures can be made, we regard IC sockets as consumable supplies. We may recommend you to replace them if a contact failure of IC socket occurs due to its use deterioration.

Measures against IC Socket Contact Failure

- (i) Please clean the contact pin surface inside of IC socket with a brush, etc. regularly, depending on the number of times used.
- (ii) If the product is not to be used for a long period, please keep it with less humidity in a plastic bag, etc.

【Recommended item for cleaning】

About the cleaning of the contact pin in the IC socket, we recommend the use of the nanotech brush (Kita Mfg Co., Ltd).

The nanotech brush can remove the dirt which stuck to a contact pin, a very small amount of metastasis of solder. When a contact poor problem occurred, please try it.

About nanotech brush, please ask us or Kita Mfg Co., Ltd (refer to the following site).

Nanotech brush (Kita Mfg Co., Ltd.) http://www.kita-mfg.com/pro_nanotech_e.html

3. List of Corresponding MCU and corresponding version

3.1 Corresponding MCU

The correspondence MCU name list of EF3062F-100G is given in Table 3.1.

Table 3.1: The correspondence MCU name list

MCU Type	Memory type	Corresponding MCU name	Program Memory Area	SW1
M3062xF8N (BOOT)	Flash Memory	M3062GF8NFP	FF000H ~ FFFFFH	BOOT
M3062xF8N (NORMAL)	Flash Memory	M3062GF8NFP	F0000H ~ FFFFFH	NORMAL
M3062xFCN (BOOT)	Flash Memory	M30620FCNFP	FF000H ~ FFFFFH	BOOT
M3062xFCN (NORMAL)	Flash Memory	M30620FCNFP	E0000H ~ FFFFFH	NORMAL
M3062xFGN (BOOT)	Flash Memory	M30624FGNFP	FF000H ~ FFFFFH	BOOT
M3062xFGN (NORMAL)	Flash Memory	M30624FGNFP	C0000H ~ FFFFFH	NORMAL
M3062xFG (BOOT)	Flash Memory	M30624FGxFP	FE000H ~ FFFFFH	BOOT
M3062xFG (NORMAL)	Flash Memory	M30624FGxFP	C0000H ~ FFFFFH	NORMAL
M3080xFC (BOOT)	Flash Memory	M30800FCFP	FFE000H ~ FFFFFFFH	BOOT
M3080xFC (NORMAL)	Flash Memory	M30800FCFP	FE0000H ~ FFFFFFFH	NORMAL
M3080xFG (BOOT)	Flash Memory	M30803FGFP	FFE000H ~ FFFFFFFH	BOOT
M3080xFG (NORMAL)	Flash Memory	M30803FGFP	FC0000H ~ FFFFFFFH	NORMAL
M3083xFJ (BOOT)	Flash Memory	M30833FJFP	FFE000H ~ FFFFFFFH	BOOT
M3083xFJ (NORMAL)	Flash Memory	M30833FJFP	F80000H ~ FFFFFFFH	NORMAL

3.2 About Software version(S/W)

Please download the latest version up data on the following site when the S/W version.

Please use S/W of the latest version and confirm S/W version regularly.

【S/W version confirmation method】

The version numbers are displayed by [Help]→[About] in the WinEFP or WinEFP2 window menu.

< EFP-I/IM S/W the latest free download site >

http://www.suisei.co.jp/download_e/productdata_efp1_e.html

< EFP-S2 S/W the latest free download site >

http://www.suisei.co.jp/download_e/productdata_s2_e.html

< EFP-S2V S/W the latest free download site >

http://www.suisei.co.jp/download_e/productdata_s2_e.html

Note on Corresponding Versions

Above corresponding versions might change without notice on account of the future capability improvement, etc. Furthermore in case the upgrade procedure manual is attached when this product is purchased, please refer to that manual as a priority.

4. Setting of SW1

It can perform writing to BOOT domain and NORMAL domain and reading by setting SW1 of EF3062F-100G. The setting method of each domain is shown below.

1) The setting of BOOT domain

Set SW1 of EF3062F-100G in BOOT side and set a device type parameter in the environmental setting dialogue of WinEFP in "M3062xFG (BOOT)".

2) The setting of NORMAL domains

Set SW1 of EF3062F-100H in NORMAL side and set a use device parameter in the environmental setting dialogue of WinEFP in "M3062xFG (NORMAL)".

※ When the device LED (red) of the main body of EFP-I turns on, please do not set SW1.

* When you set SW1 in "NORM + BOOT" and it performs to read and write NORMAL domain and BOOT domain, please refer to **8. Device batch macroinstruction.**

5. Block Set Command

The block set command handles for viewing and setting lock bit.

Setting "Lock" block's lock bit, it can protect from writing and erase.

5.1 Screen Layout

The screen layout for the block set command is shown in Fig. 5.1.

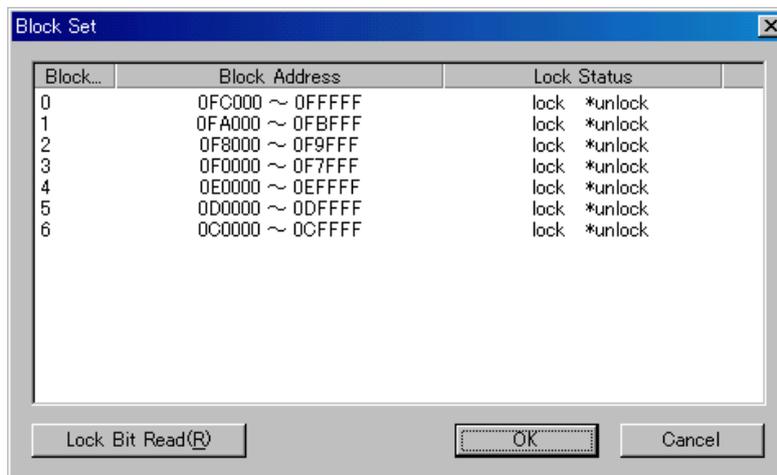


Fig. 5.1: Block Set Command Screen layout

(1) Block No. (Block number)

Indicates the block No. assigned for each block.

(2) Block Address

Indicates start and end address for each block.

(3) Lock Status

Indicates the lock bit status for each block.

*lock unlock: The lock bit is locked.

lock *unlock: The lock bit is unlocked.

(4) Lock Bit Read button

Reads all lock bit data from target MCU, and indicates lock bit status according to data contents.

(5) OK button

It writes to the target MCU the lock bit data of the block is set to "locked".

(6) Cancel button

Cancels command.

5.2 Lock Bit Setting

The procedure for setting lock bit to lock is as follows:

1) Check mouse cursor in the suitable line and double-click. The state of the lock bit in the lock status is replaced. Please set it in the lock side.

2) Click the OK button.

Write the lock bit data of the block which is set to "Lock" to the target MCU.

※ It cannot return the block set by a lock state to the non-lock state by the block set command after having written in lock bit data to MCU by the OK button.

※Please refer to **6. Erase Command** when it returns the lock bit in lock state a non-lock state.

6. Erase Command

The erase type parameter contained in the erase command enables you to erase by block or erase all blocks.

The erase command parameter input dialog is shown in Fig. 6.1.

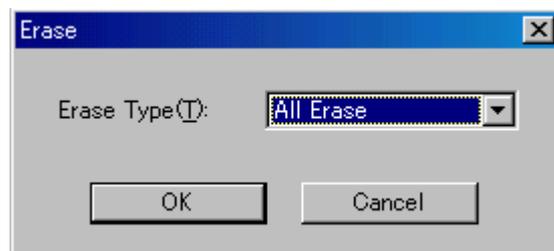


Fig. 6.1: Erase Command Parameter Input Dialog

(1) Erase type

All erase and block address field (xxxxxxh – xxxxxxh) are displayed in the drop-down list to the right of the erase type parameter display field (displayed by clicking the arrow pointing downward with the mouse). Select the block erase method.

(2) OK button

Executes block erase command.

(3) Cancel button

Cancels command.

※ Please operate the following to erase the block of the lock state. In addition, operate the following, it can return the blocking of the lock state to unlocking (a non-lock state).

1) Choose [Option] → [Environment Setting] in the menu of the WinEFP window and open an environmental setting dialogue. Set Lock Type parameter in Use Device in "Lock bit ineffective" and click the OK button.

2) Choose [Device] → [Erase] in the menu of the WinEFP window and open Erase command parameter input dialogue. Set Erase type parameter to the block of the lock state and click the OK button.

7. Parameter Input by Device Command

MCU of the parallel I/O method of the M16C/60 series (100P6S-A package product) performs writing of data by a page unit and performs reading by a WORD unit.

The parameter input formality of an address domain to perform writing and reading to MCU with device command is shown in the following.

1) Writing to MCU

Please perform by a page unit the appointment of the address domain when it writes in data from MCU. Data size of one page is 256 bytes.

The input form of the start address and end address of Program command and the device macro command is the following setting.

In addition, the parameter error occurs when it input an address except the page unit into a Start address and End address.

Input form>

Start Address x x x x 0 0 H

End Address x x x x F F H

2) Reading to MCU

Please perform by WORD unit the appointment of an address domain when it reads data from MCU.

Please input an even number in the start address of Blank, Read, and verify command.

Input an odd number to an end address.

In addition, a parameter error occurs when it inputs an address except the WORD unit into a start address, an end address.

8. Device batch macroinstruction

Device batch macro command is a command to write and to read that NORMAL domain of MCU and BOOT domain by batch. When it uses Device batch macro command, please set SW1 on MCU unit "NORM +BOOT". Please use this command when it works to write in reading data to MCU of the blank after it reads data from MCU which is finished writing.

The parameter input dialogue of the device batch macro command is shown in Fig.8.1.

Device batch macroinstruction

BOOT Area

Start Address(I): 07E000

End Address(B): 07FFFF

NORMAL Area

Start Address(S): 0C0000

End Address(O): 0FFFFFF

Device Type(D): Erase

Include Block Information(L)

OK Cancel

Fig.8.1 Device batch macro command parameter input dialogue

1) Start , End Address (BOOT domain)

Appoint a domain reading or writing in the BOOT domain.

Please appoint domains from 7E000H to 7FFFFH in this parameter.

* In the BOOT domain, NORMAL domain and address space repeat.

From 7E000H to 7FFFFH of the EFP-I Installed RAM is assigned to the work domain for the BOOT domain.

The diagrammatical view of the work domain is shown in Fig. 8.2.

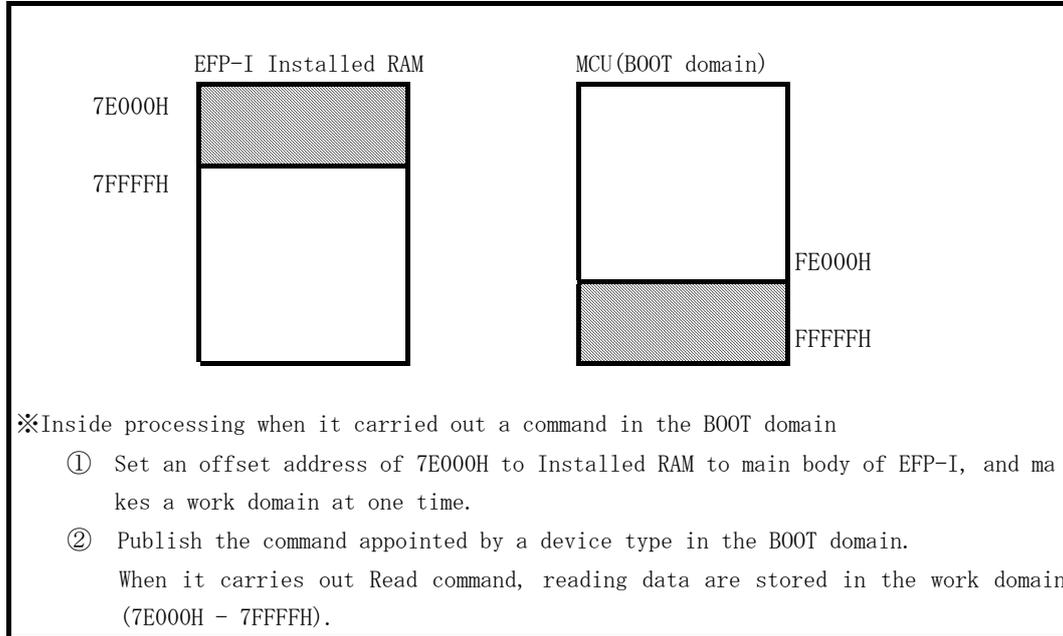


Fig.8.2 Work domain diagrammatical view

2) Start, End Address (NORMAL Domain)

Appoint a domain reading or writing in the NORMAL domain.

Please use address in NORMAL domain of the device.

3) Device Type

Appoint a command to publish. Please choose from drop-downs list in this parameter displayed area right side.

It is displayed when it click a downward arrow with a mouse.

4) Include Block Information

When it is set ON the check box of this parameter, it performs automatically the reading or writing of the lock bit data of the block which appointed in the start address and end address parameter an effective command of this parameter is shown in the following.

* Erase

It erases the data of the appointment domain.

It becomes the unlocking state when the block of the appointment domain is in a state Lock.

* Read command

It reads the data of the appointment domain and the data of the lock bit of the block.

* Program command

It writes in the data of data between appointment domains and the lock bit of the block.

The data of the lock bit of block writing writes in Read or Block Read the data which performed reading.

5) OK button

Carry out a device batch macro command.

6) Cancel button

Cancel the command

※ About use example of device batch macro command

When it begins to read data from MCU which is finished writing, with device batch macro command, and it write in data to MCU of the blank article, use example is shown in the following.

1) Set SW1 of EF3062F-100G in "NORM + BOOT" and choose [Device]→[Device batch macroinstruction] in the WinEFP menu.

2) Insert MCU which is finished writing in EF3062F-100G. The start and the end address of the device batch macro command set an arbitrary address and set device type in "read" and click the OK button.

(When it reads the lock bit of the block, please set ON check box of "block information includes")
Take out MCU from EF3062F-100G when a command was finished normally.

3) Insert MCU of the blank article in EF3062F-100G. Set a start and end address of the device batch macro and set a device type in "program" and click the OK button.

(It writes automatically the data of the lock bit of the block which is begun to read when at the time of reading when it set ON in check box of "block information includes".)

9. Automatic offset address for EFP-I internal RAM

EFP-I has built-in 512k Byte user buffer RAM. It can use domain from 0h to 7FFFFFFh.

The address domain of the built-in flash memory of M30624FG is FFFFFFFH from C0000H. It lacks RAM domain of the main body of EFP-I.

Therefore WinEFP is set automatically HEX off set address of 80000H, and 0H of the main body of EFP-I Installed RAM becomes 80000H, and an end address becomes FFFFFFFH.

*Please set domain of FFFFFFFh - 80,000h the command in the [Edit] in WinEFP window menu.

For automatic offset setting, it cannot use the domain of 7FFFFFFh - 0h.

※The automatic offset of 80000H is not displayed in HEX offset addresses.

The offset which added the address value that is input into 80000H to is set when you input an address into HEX offsets.