

CUSTOMER NOTIFICATION

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## **V850E/IA3, V850E/IA4 Device File**

### **DF703186 (V2.01)**

### **User's Manual**

[Supported machines/OS]

PC-9800 Series (Windows™ Based)

IBM PC/AT Compatibles (Windows™ Based)

Be sure to read this document before using the product.

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## 1. OUTLINE

A device file is a binary file that contains device-dependent information and is prepared for each device model or for each product in the same series.

Device files are commonly used with development tools (such as compilers and debuggers). Employing device files enables generation and debugging of device-unique codes. In addition, when developing applications, device files enable the SFR names unique to the device being used to can be used for programming.

The DF703186 contains device files necessary for developing applications using the V850 Series V850E/IA3 or V850E/IA4.

## 2. CONTENTS OF PACKAGE

The device files included in this product and the corresponding devices are as follows.

**Table 2-1. Contents of Package**

Types	Device File Name	Corresponding Device Name	Model Specification Name	Version
Device file	D3183.800	$\mu$ PD703183	3183	V2.01
	D3185.800	$\mu$ PD703185	3185	V2.01
	D3186.800	$\mu$ PD703186	3186	V2.01
	DF3184.800	$\mu$ PD70F3184	f3184	V2.01
	DF3186.800	$\mu$ PD70F3186	f3186	V2.01

The “model specification name” is used as the character string specified with the CA850 compile option “-cpu”, the “#pragma cpu directive” in source programs, and the “.option directive”. The names are not case sensitive.

## 3. USER ENVIRONMENT

Like development tools, device files are available for Windows.

User environment for device files is as follows.

Machine	Operating System
PC-9800 series, IBM PC/AT compatible machines	Windows 98 Windows NT 4.0 Windows 2000 Windows Me Windows XP

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## 4. CORRESPONDING VERSIONS OF DEVELOPMENT TOOLS

The corresponding versions of the DF703186 and V850 Series development tools made by NEC Electronics are shown below. Use these tools in the following combinations.

Tool Used	Version of Corresponding Tool
C compiler package CA850	V2.60 or later
Integrated debugger ID850NWC	V2.52 or later
Integrated debugger ID850QB	V2.80 or later

## 5. INSTALLATION

Device files are included on one floppy disk. Use the device file installer (DFINST) included in the NEC Electronics development tools (CA850, ID850NWC, and ID850QB) to install the device file.

**Note** A self-extraction file (an execution file) is downloaded along with device files with ODS (on-line delivery service). If this file is executed, a disk image is created. Copy this to hard disk or to a floppy disk and then begin the installation process.

The installation procedure is explained below.

- (1) Start Windows.
- (2) Start the device file installer (DFINST). If the NEC Electronics development tool has been installed in the standard directory, the device file installer will be in *installed drive*\Nectools32\bin.
- (3) If installing from the floppy disk, insert the floppy disk in the floppy disk drive.
- (4) Click the [Install] button.
- (5) If installing from the floppy disk, use the [FD Browse] button to display the path where the disk image (icon) is located. Use the [Browse] button to do this if installing from hard disk.
- (6) Necsetup.ini file and \_csetup.ini file are displayed in the file list of the dialog box that appears after step (5). Select \_csetup.ini to install the English version and Necsetup.ini to install the Japanese version.
- (7) Follow the installation wizard to continue installation.

## 6. USAGE

Refer to the user's manual of each tool listed in **7. RELATED DOCUMENTS** for details of how to use the device file.

## 7. RELATED DOCUMENTS

The documents related to the DF703186 are listed below.

User's Manuals
V850E/IA3, V850E/IA4 - Hardware
V850E1 - Architecture
CA850 C Compiler Package - Operation
CA850 C Compiler Package - C Language
CA850 C Compiler Package - Assembly Language
PM plus
ID850NWC Operation
ID850QB Operation
V850 Series Development Tools Tutorial Guide (Windows Base)

## 8. REVISION HISTORY

### 8.1 V1.00

- (1) First edition

### 8.2 V2.00

- (1) Addition of device files that support the following devices.

$\mu$ PD703183, 703185, 703186, 70F3184

- (2) The ID850QB (for IECUBE) is now supported.

- (3) Modification of peripheral I/O register access attributes

The following peripheral I/O register bit access attribute of the  $\mu$ PD70F3186 has been modified.

Reserved Word	Address	Before Change	After Change
OP1CTL1	0xfffff269	REEERRRE <sup>Note</sup>	REEEERRRR <sup>Note</sup>

**Note** The attributes are read from left to right in the order bit 7, bit 6, bit 5, ... bit 0.

E: Read/Write, R: Read only, W: Write only, -: Access impossible

- (4) Deletion of peripheral I/O register

The following peripheral I/O register has been deleted.

Reserved Word	Address
OCDM	0xfffff9fc

### 8.3 V2.01

#### (1) Modification of peripheral I/O register access attributes

UA0RX (0xFFFFFA06)	8 bits	R <sup>Note</sup>	→	Read prohibited
UA1RX (0xFFFFFA16)	8 bits	R <sup>Note</sup>	→	Read prohibited
CB0RX (0xFFFFFD04)	16 bits	R <sup>Note</sup>	→	Read prohibited
CB0RXL (0xFFFFFD04)	8 bits	R <sup>Note</sup>	→	Read prohibited
CB1RX (0xFFFFFD14)	16 bits	R <sup>Note</sup>	→	Read prohibited
CB1RXL (0xFFFFFD14)	8 bits	R <sup>Note</sup>	→	Read prohibited

**Note** R: Read-only