FUJITSU

NP07-12635-1E

8-bit Microcontrollers
MB95270H Series

FF VALUE

MB95270H is 8-bit low-pin-count microcontroller series that has "Easy to use" as a product concept.
This series has the function that is enough for the control of various small scale systems such as electric home appliance.
And can be used as sub-microcontroller for function addition in the cause of the specification change.

■FEATURES

- **F²MC-8FX CPU**
  Instruction set optimized for controllers
- **Clock**
  Maximum clock frequency : 16.25MHz
- **8/16-bit composite timer**
  case for 8-bit timer : 2 channels
  case for 16-bit timer : 1 channels
- **Timebase timer** : 1 channel
- **Watch prescaler** : 1 channel
- **External interrupt** : 2 channels
  - Interrupt by edge detection
  - Can be used to wake up the device from different low power consumption (standby) modes
- **8/10-bit A/D converter** : 2 channels
- **Low power consumption (standby) modes**
  Stop mode
  Sleep mode
  Watch mode
  Time-base timer mode
- **I/O port**
  MB95F272K/F273K/F274K : 5
  MB95F272H/F273H/F274H : 4
- **On-chip debug**
  - 1-wire serial control
  - Serial writing supported (asynchronous mode)
- **Low-voltage detection reset circuit**
  MB95F272K/F273K/F274K
- **Clock supervisor counter**
- **Dual operation Flash memory**
- **Flash memory security function**
- **Power supply** : 2.4~5.5V
  *The range of the power supply voltage is different according to the operating frequency and the operating temperature.
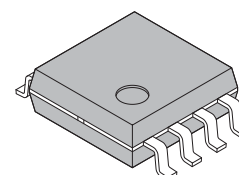
■PRODUCT LINEUP

Part number / Parameter	MB95F 272H	MB95F 273H	MB95F 274H	MB95F 272K	MB95F 273K	MB95F 274K
Type	Flash memory product					
ROM (Byte)	8K	12K	20K	8K	12K	20K
RAM (Byte)	240	496		240	496	
Low-voltage detection reset	No			Yes		

■ORDERING INFORMATION

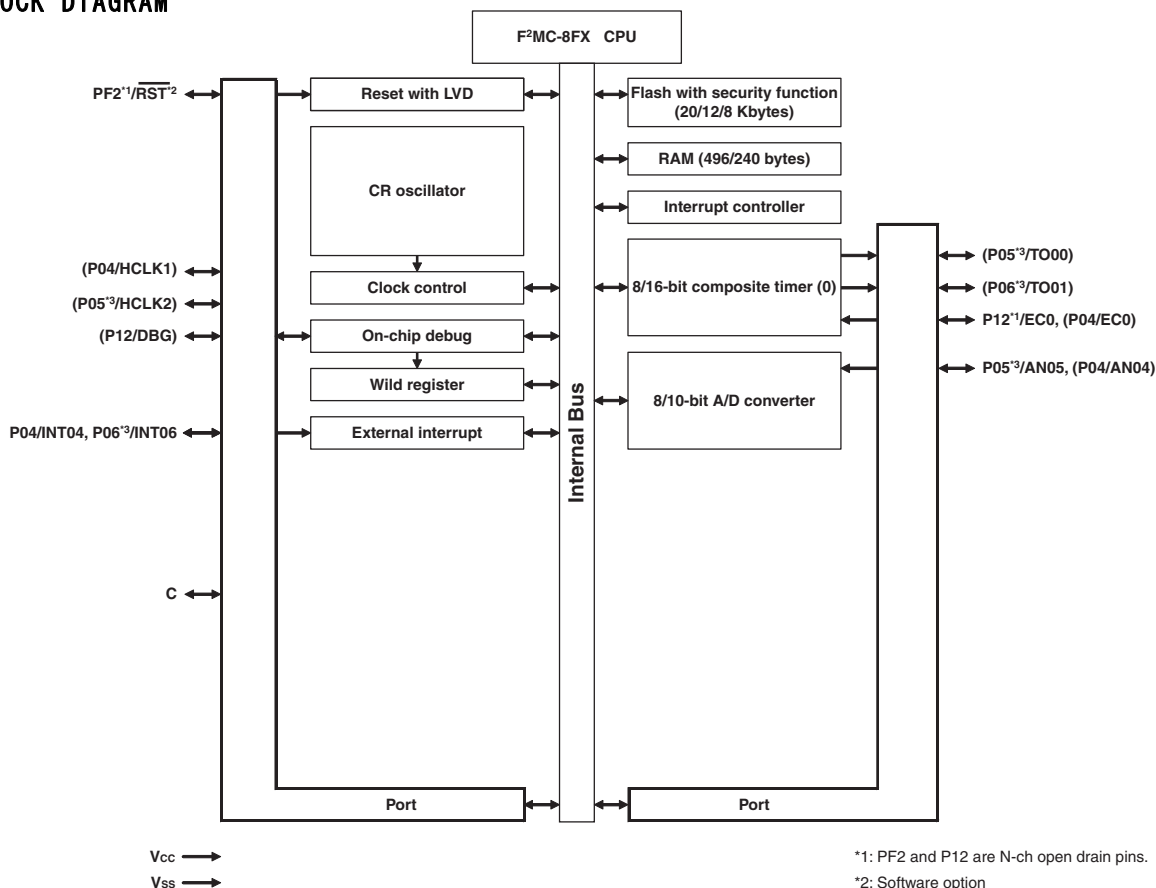| Product name	Package	Remarks
MB95F272HPH MB95F272KPH MB95F273HPH MB95F273KPH MB95F274HPH MB95F274KPH	Plastic・DIP, 8-pins (DIP-8P-M03) 6.35mm×9.40mm, 2.54mm pitch	–
MB95F272HPF MB95F272KPF MB95F273HPF MB95F273KPF MB95F274HPF MB95F274KPF	Plastic・SOP, 8-pins (FPT-8P-M08) 5.30mm×5.24mm, 1.27mm pitch	–

■PACKAGE EXAMPLE OF REFERENCE

Plastic ・ SOP, 8-pins
(FPT-8P-M08)

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■BLOCK DIAGRAM

F²MC-8FX CPU

Left side blocks	Right side blocks
Reset with LVD	Flash with security function (20/12/8 Kbytes)
CR oscillator	RAM (496/240 bytes)
	Interrupt controller
Clock control	8/16-bit composite timer (0)
On-chip debug	
Wild register	8/10-bit A/D converter
External interrupt	
Port	Port

PF2*1/RST*2

(P04/HCLK1)
(P05*3/HCLK2)
(P12/DBG)

P04/INT04, P06*3/INT06

C

Internal Bus

(P05*3/TO00)
(P06*3/TO01)
P12*1/EC0, (P04/EC0)
P05*3/AN05, (P04/AN04)

Vcc →
Vss →

*1: PF2 and P12 are N-ch open drain pins.
*2: Software option
*3: P05 and P06 are high-current pins.

■SUPPORT TOOL

● HARDWARE

Name	Part Number	Remarks
BGM adapter	MB2146-08-E	For F²MC-8FX MB95200 series
PC cable	USB cable	Attached to MB2146-08-E, 1.0m

● SOFTWARE

Software	Part Number	Operating System
SOFTUNE V3 Professional Pack	SP36503Z008-P01	Windows2000/XP/Vista

● FLASH MICROCONTROLLER PROGRAMMER

Name	Remarks
Parallel programmer	Made by Flash Support Group, Hi-Lo Systems, Data I/O, etc.
Serial on board programmer	FUJITSU FLASH MCU Programmer

■STARTER KIT

We can provide the STARTER KIT that can easily do the product evaluation and the program development of MB95200 series.
・The kit includes
 - BGM adapter
 - Evaluation board
 - USB cable (for connecting BGM adapter and PC)
 - Document and sample program (CD-ROM)

STARTER KIT MB2146-420A-01-E

NP07-12635-1E