

	TLCS-870 Family TLCS-870/C1 Series	
<b>8bit</b>	<b>TMP89FH42UG</b> <b>TMP89FM42UG</b>	<b>FLASH</b>
		44pin

## 8-bit microcontrollers delivering high functionality and performance in low-pin-count packages

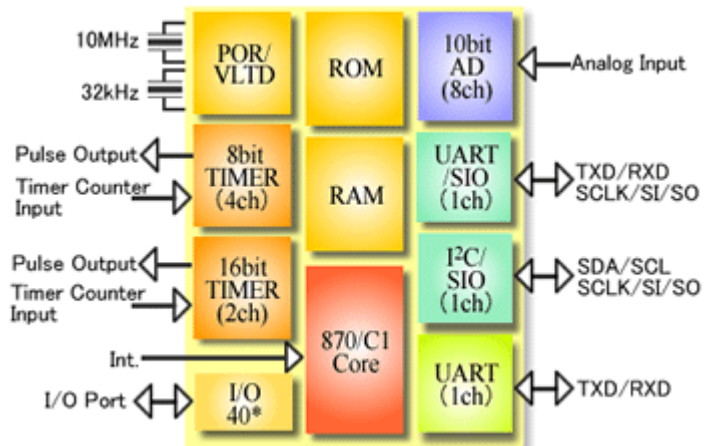
### Features

#### ● TLCS-870/C1 CPU Core

- Operating voltage
  - 4.3 to 5.5 V at 10 MHz
  - 2.7 to 5.5 V at 4.2 MHz
  - 2.2 to 5.5 V at 2 MHz
- Clock gear
  - 1/4, 1/2, 1/1

#### ● Built-in Functions

- Voltage detecting circuit  
(Two voltage levels detectable, reset or interrupt selectable)
- Power-on reset circuit
- 10-bit AD converter : 8 channels
- 8-bit timer : 4 channels
- 16-bit timer : 2 channels
- UART/SIO : 1 channel
- UART : 1 channel
- I<sup>2</sup>C/SIO : 1 channel  
(One SIO channel can be used at a time.)
- Built-in pull-up resistors
- On-chip debug function (Flash version only)



\*:Two pins are used for high-frequency oscillation and cannot be used as input/output ports.

#### ● Flash Memory Size

Part number	ROM(Flash)	RAM
TMP89FH42UG	16 Kbytes	2 Kbytes
TMP89FM42UG	32 Kbytes	2 Kbytes

#### ● Product Lineup

Part number	ROM	RAM
TMP89CH42UG	16 Kbytes	2 Kbytes
TMP89CM42UG	32 Kbytes	2 Kbytes

### Development Systems

#### ● Software Products

Toshiba Integrated Development Environment	C Compiler	SW89CN0-ZCC: 1 license SW89CN3-ZCC: 10 licenses
	Integrated Development Environment	SW00MN0-ZCC: 1 license SW00MN3-ZCC: 10 licenses The emulator comes with a single-seat download license.

#### ● Hardware Products

\*\* : Under development

On-Chip Debug Emulator	Emulator	BMP89A400010A-G
In-Circuit Emulator	Emulator	BMP89A300010A-G
	Emulation chip	TMP89C900XBG**

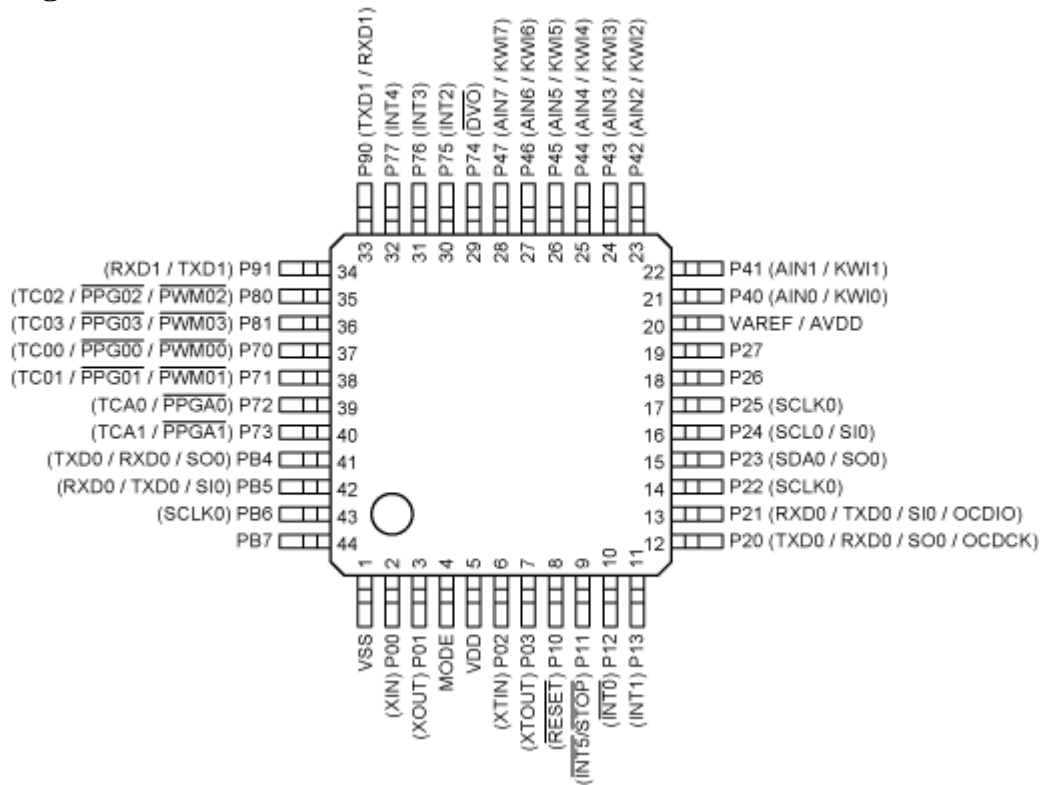
- › Use either an On-Chip Debug Emulator or an In-Circuit Emulator.
- › As to hardware products, additional accessories are also needed.

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» Contact the Toshiba sales representative for information about RoHS compliance before you purchase any components.

## Package Information

### ● Pin Assignments



Package name: LQFP44-P-1010-0.80B

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