

TLCS-870 Family TLCS-870/C1 Series

8-bit / 44-pin

NEW TMP89FM43KQG

FLASH

**8-bit microcontroller in a compact package,
supporting low-voltage erase/program operations,
and reducing peripheral components count by embedding circuits
such as on-chip oscillator and power-on-reset.**

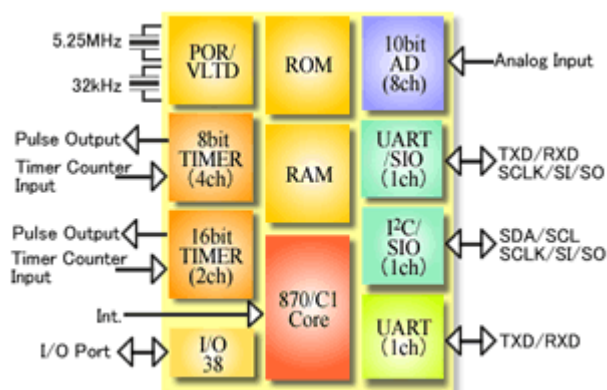
Features

TLCS-870/C1 CPU Core

- ▶ Operating voltage
 - 3.0 to 3.6 V at 5.25 MHz (erase/write)
 - 2.7 to 3.6 V at 5.25 MHz (read)
 - 2.2 to 3.6 V at 2 MHz (read)
 - 2.2 to 3.6 V at 32 kHz (read)
- ▶ Clock gear 1/4, 1/2, 1/1

Built-in Functions

- ▶ On-chip oscillator (5.25 MHz)
External oscillator also selectable by software
- ▶ Power-on reset circuit (POR)
- ▶ Voltage detecting circuit (VLTD)
(Two voltage levels detectable, reset or interrupt selectable)
- ▶ On-chip debug function
- ▶ I/O ports : 38 pins
- ▶ 16-bit timer : 2 channels
- ▶ 8-bit timer : 4 channels
- ▶ UART/SIO : 1 channel
- ▶ UART : 1 channel
- ▶ I²C/SIO : 1 channel (One SIO channel can be used at a time.)
- ▶ 10-bit AD converter : 8 channels
- ▶ Built-in programmable pull-up resistors



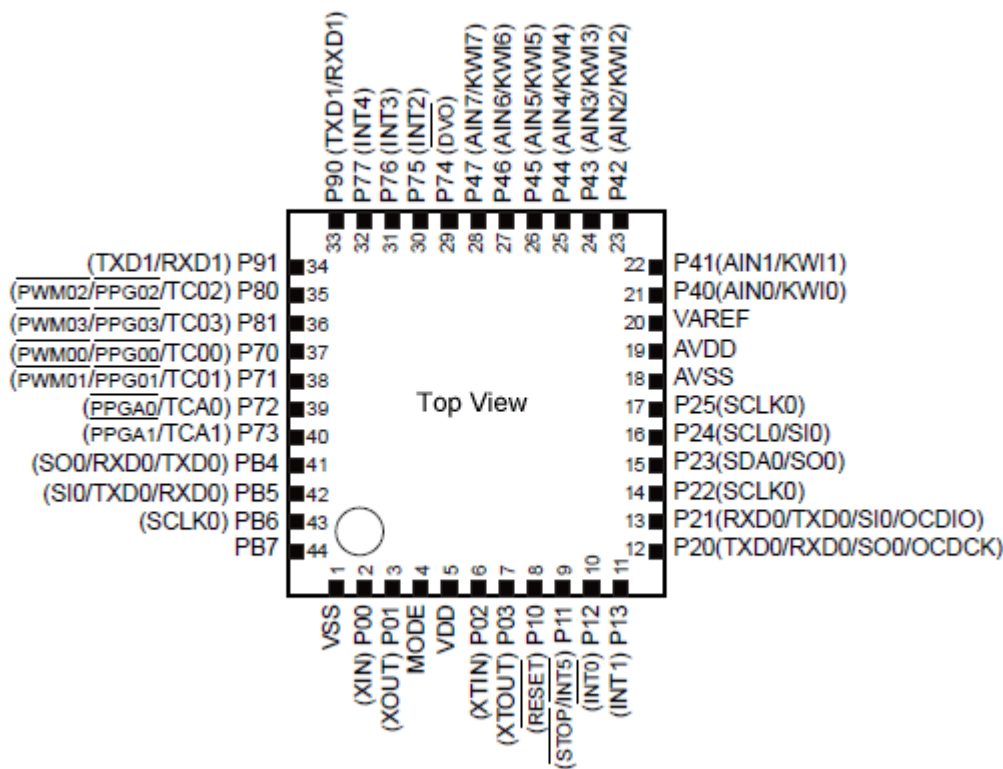
Memory Size

Part number	ROM (Flash)	RAM
TMP89FM43KQG	32 Kbytes	2 Kbytes

* This product uses the SuperFlash® technology under license of Silicon Storage Technology, Inc. Super Flash® is a registered trademark of Silicon Storage Technology, Inc.

Package Information

Pin Assignments



Package : VQON44 (6 × 6 mm)

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

On-Chip Debug Emulator	Emulator	BMP89A400010A-G
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* As to hardware products, additional accessories are also needed.

» For further information about Toshiba microcomputers and Toshiba microcomputer development systems, please visit
<http://www.semicon.toshiba.co.jp/eng/product/micro/index.html>

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