EM MICROELECTRONIC - MARIN SA

SWATCH GROUP ELECTRONIC SYSTEMS

EM6682

World's first sub-1V, 8-pin Microcontroller

EM6682 has a 3kB mask ROM memory. It comes in a small 8-pin SO and TSSOP packages and have a high integration level for best use in battery-operated and cost sensitive applications.

Key Features

- **Small 8-pin package**
- **True Low Current**
- **4-bit ADC or 12 levels Voltage Level detector**
- **High drive outputs**
- **No external component**
- **Large supply voltage range from 0.9V up to 5.5V**
- **CPU clock: can be selected from 32kHz to 800kHz on the fly**

& BENEFITS

- ✓ *Ideal for portable and battery-operated applications*
- ✓ *Suitable for one 1.5V cell-battery*
- ✓ *Useful in simple analog sensing applications*
- ✓ *Save PCB space*
- ✓ *Cost effective*
- ✓ *Compatible with EM6580 flash version*

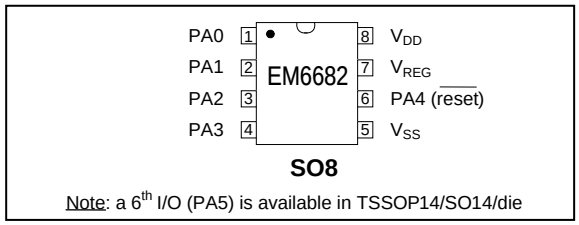
And more…

- Max 5/6* I/Os with 2 high drive outputs of 25mA
- Power-On-Reset with brownout control
- Original EM design: Sleep Counter Reset (automatic wake-up from sleep mode)
- Internal RC oscillator 32 kHz – 800 kHz with outstanding stability
- 8-bit serial interface

	EM6682
Memory	ROM 1536 x 16 bit
Supply voltage	0.9 V to 5.5 V
Current active 32kHz	4.0 µA
standby 32kHz	3.0 µA
sleep (no clock)	0.35 µA
Package	SO-8/14*
	TSSOP-14*

Tools & Services

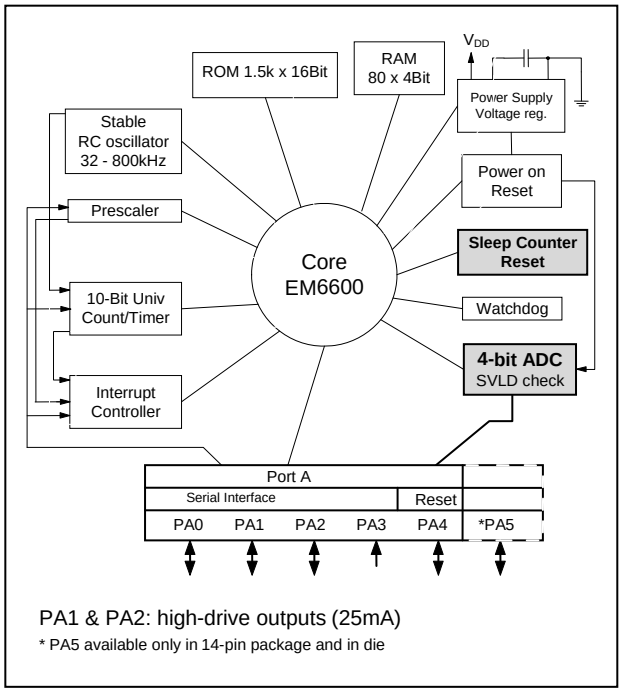
- Easy to use, well-proven simulator and emulator
- Windows-based software programs
- Programmer available
- Demo board available



SO8

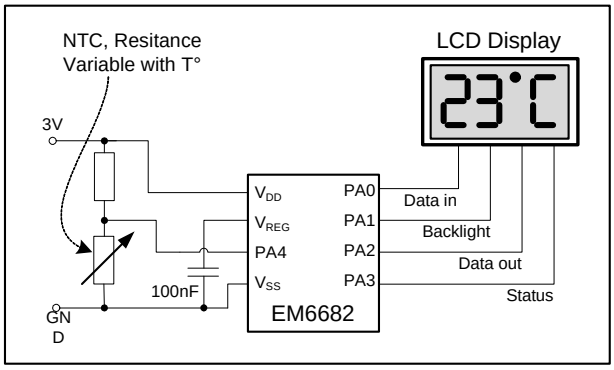
Note: a 6th I/O (PA5) is available in TSSOP14/SO14/die

Pin Configuration



Block Diagram

Example of Application



4-bit ADC in Temperature Sensing Application

Typical Applications

- Domestic Appliances & Toys
- Safety and security devices
- Communication
- Sensor interfaces
- Watchdog
- Intelligent ADC
- Driver (LED, triac)

A COMPANY OF THE SWATCH GROUP

Rev. C, 04/2008

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