



## Ultra Low Power Microcontroller with 4x20 LCD Driver

The EM6625 is a mask ROM microcontroller featuring low voltage and low current consumption, making it the most suitable choice for battery-operated and cost sensitive applications.

### Key Features

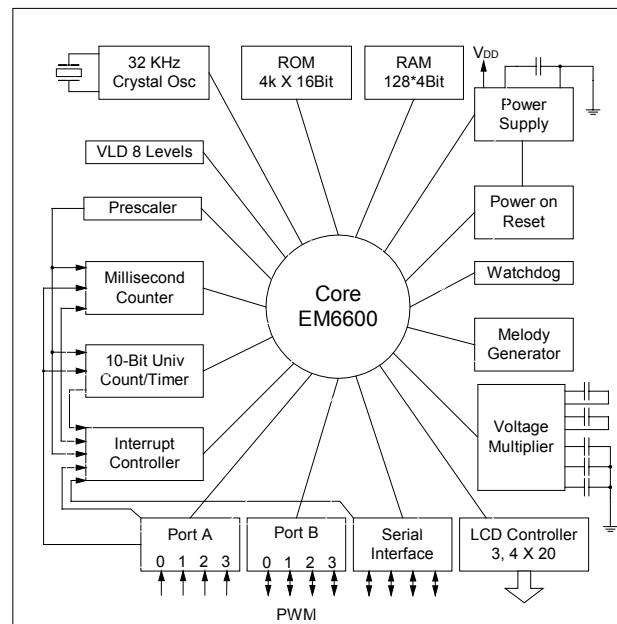
- ❑ **True Low Current:** 1.6  $\mu\text{A}$  active mode  
0.4  $\mu\text{A}$  standby mode  
0.2  $\mu\text{A}$  sleep mode
- ❑ **Temperature compensated LCD voltage levels**
- ❑ **Free LCD segment allocation**
- ❑ **Built-in LCD voltage multipliers**
- ❑ **10-bit universal counter, PWM function**
- ❑ **Millisecond counter (BCD)**
- ❑ **Melody generator (7 tones + silence)**
- ❑ **MFP version available for development**

### & BENEFITS

- ✓ *Ideal for battery-operated applications*
- ✓ *Uniform and constant LCD contrast*
- ✓ *Great flexibility in displaying LCD segments*
- ✓ *Less external components*
- ✓ *Cost effective*
- ✓ *Robust and proven design*

### And more...

- ❑ Low Voltage 1.2V to 3.6V
- ❑ 32kHz/128kHz crystal oscillator
- ❑ LCD frequency 32Hz/42.7Hz/64Hz
- ❑ LCD 20 segments, 3 or 4 times multiplexed
- ❑ Supply Voltage Level Detector (SVLD), 8 levels software selectable from 1.2V to 4.0V
- ❑ Max 12 inputs; port A, port B, port SPI
- ❑ Max 8 outputs; port B, port SPI
- ❑ Mask ROM 4k x 16bits, RAM 128 x 4bits
- ❑ 8-bit SPI, 3 wire serial port, master and slave mode



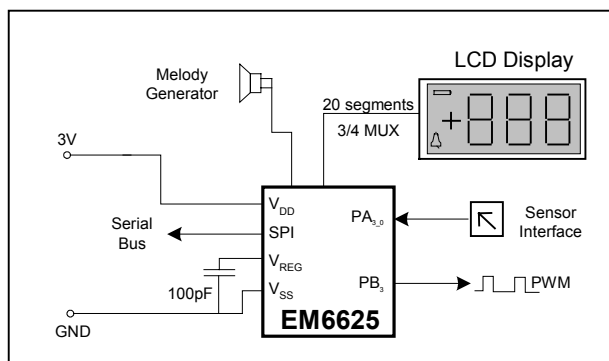
Block Diagram

### Tools & Services

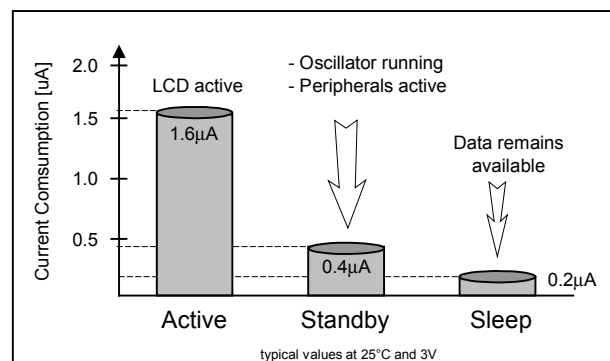
- ❑ Easy to use, well-proven simulator and emulator
- ❑ Windows-based software programs
- ❑ MFP version EM6521 available for development stage
- ❑ Dedicated team of engineers for outstanding customer and software support
- ❑ Wafer bank for fast prototyping = fast time to market
- ❑ Complete datasheet, application note, demo kit and info at <http://www.emmicroelectronic.com>

### Typical Applications

- ❑ Household appliances
- ❑ Timer/sports timing devices
- ❑ Bicycle computers
- ❑ Measurements equipment
- ❑ Security, safety and medical devices
- ❑ Interactive systems with display



Application with sensor interface and melody generator



Ultra low Current Consumption