STEVAL-IAS003V1

Counter with STM8L101xx low-power microcontroller and LCD

Data brief

Features

- 1.6 µA consumption @ 18 Hz refresh rate
- 3 digit LCD glass driven by software
- 2 buttons
- CR1220 battery operated
- Minimum external components:
  - only 2 capacitors on top of mandatory parts (battery, LCD, MCU, buttons)
- Low-cost PCB (single layer)
- RoHS compliant

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Description

The STEVAL-IAS003V1 counter demonstration board is intended as an example for applications where a directly-driven LCD with the associated programmable functionality is needed. Targeted areas include the medical and healthcare field, battery-operated counters, meters and many others.
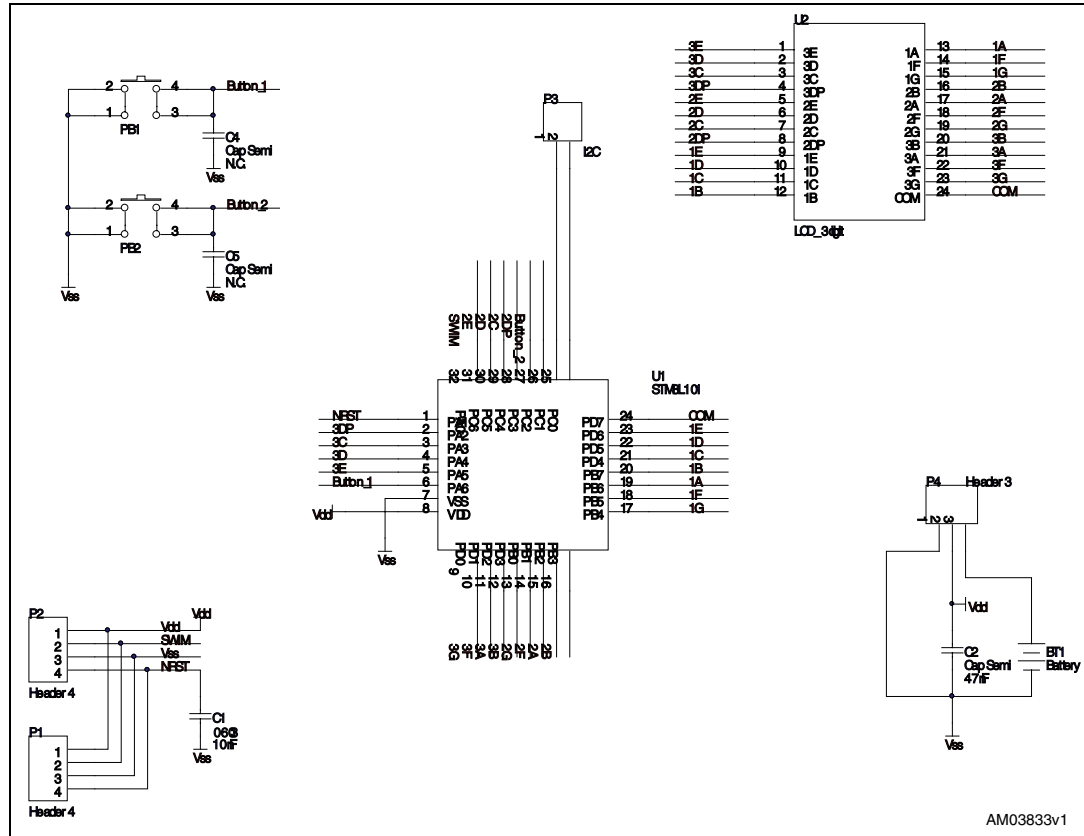
The application is focused on low power consumption, so the STM8L101xx MCU is used, and software is written to optimally use the low-power modes available. This results in an average current consumption for the entire application of below 1.5 µA, including direct LCD drive, implemented by software.

Very low consumption is achieved by keeping the microcontroller in the active-halt low-power mode for most of the time. From this mode, the STM8L101xx is awakened regularly by the auto wake-up timer.

1 Circuit schematic

Figure 1.   STEVAL-IAS003V1 schematic diagram

AM03833v1

2   Revision history

Table 1.   Document revision history

Date	Revision	Changes
10-Sep-2009	1	Initial release.

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