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Capacitive touch demonstration board based on the STMPE321

Data brief



Features

- STM32 microcontroller is used as the main digital controller to interface the STMPE321 device
- STMPE321 device controls 3 different touch keys
- Touch events are indicated on the LEDs
- RoHS compliant

Description

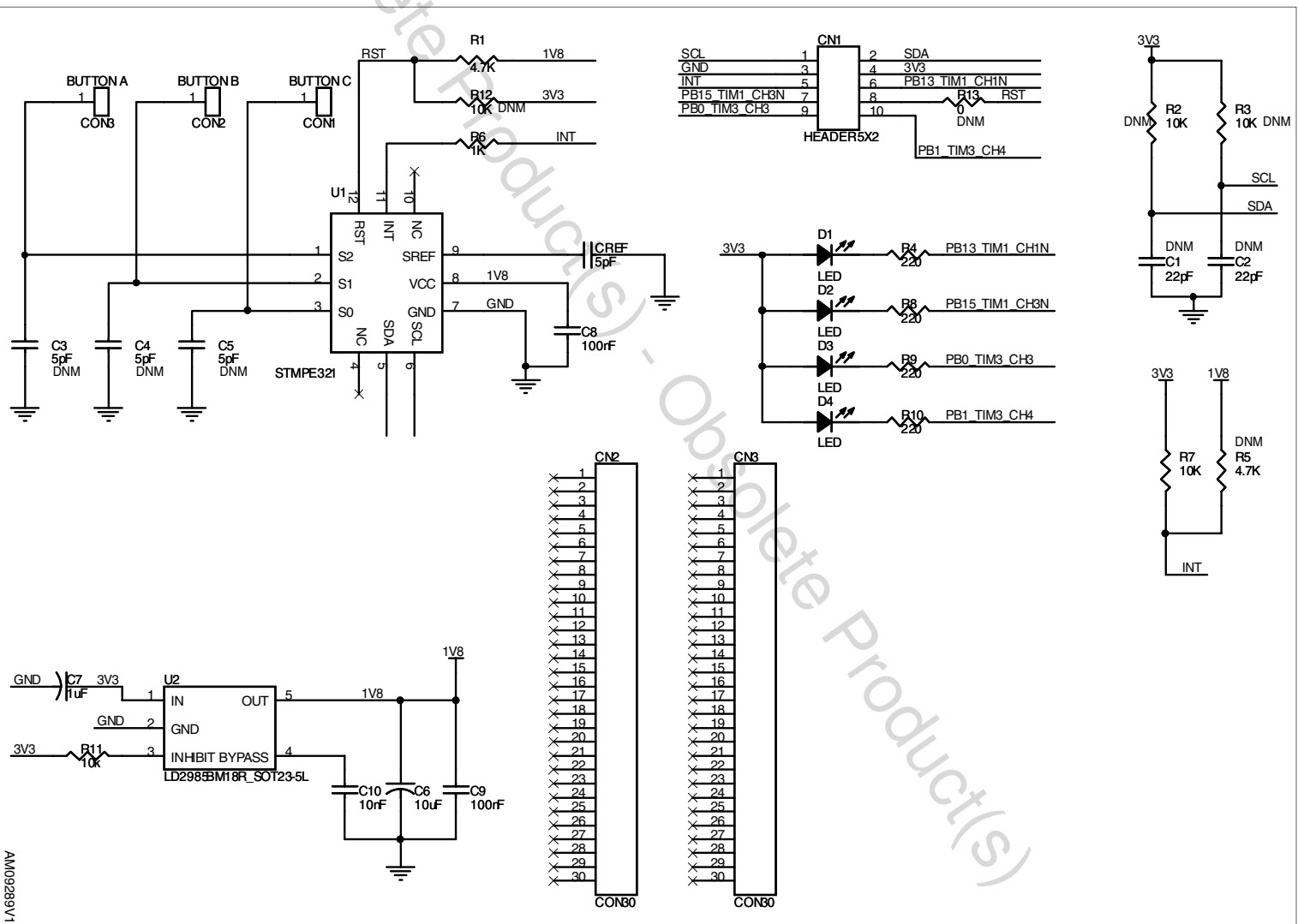
The STEVAL-ICB007V1 demonstration board employs STM32-based capacitive touch to demonstrate the functionality and performance of the STMPE321, a 3-channel capacitive touch key controller.

Capacitance measurement is implemented in fully optimized hardware, and the 3 I/Os can be configured as either capacitive touchkeys or as GPIOs (general purpose input/output). The device is capable of interfacing with a main digital ASIC/controller through the 2-line communication protocol I2C.

In the STEVAL-ICB007V1 demonstration board, the STM32 microcontroller is used as the main digital controller to interface with the STMPE321 device. The system utilizes the capacitive touchkey controller of the STMPE321 and PWM features of the STM32 to demonstrate the application.

The STMPE321 controls 3 different touchkeys using an integrated capacitive touch controller. Touch events are indicated on the LEDs using the STM32 GPIO pins, and the corresponding PWM frequency is generated on a separate LED using the STM32 timer.

1 Circuit schematic



2 Revision history

Date	Revision	Changes
03-Jun-2011	1	Initial release.

Obsolete Product(s) - Obsolete Product(s)

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