Blinky_LED_1
for KIT_AURIX_TC234_TFT
Blinky LED

AURIX™ TC2xx Microcontroller Training
V1.0.1

Scope of work

An LED is blinking based on the timing given by a wait function.

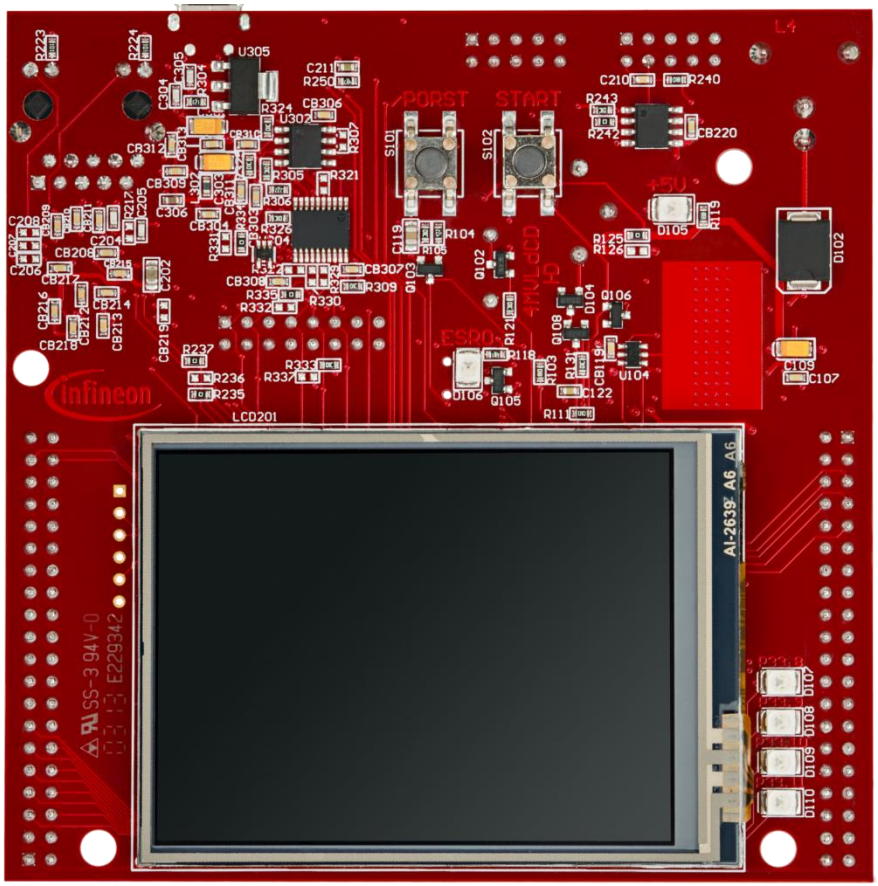
A wait function is used to add delays between switching on and switching off an LED on port pin P13.0.

Introduction

- The individual control and data bits of each GPIO port are implemented in a number of registers. The registers are used to configure and use the port as general-purpose I/O.
- The port input/output control registers configure the functionality and characteristics of the GPIO port pin such as port direction (input or output), pull-up, pull-down, and push-pull or open-drain functionality.

Hardware setup

This code example has been developed for the board KIT_AURIX_TC234_TFT_AC-Step.



Implementation

Initialization of the LED

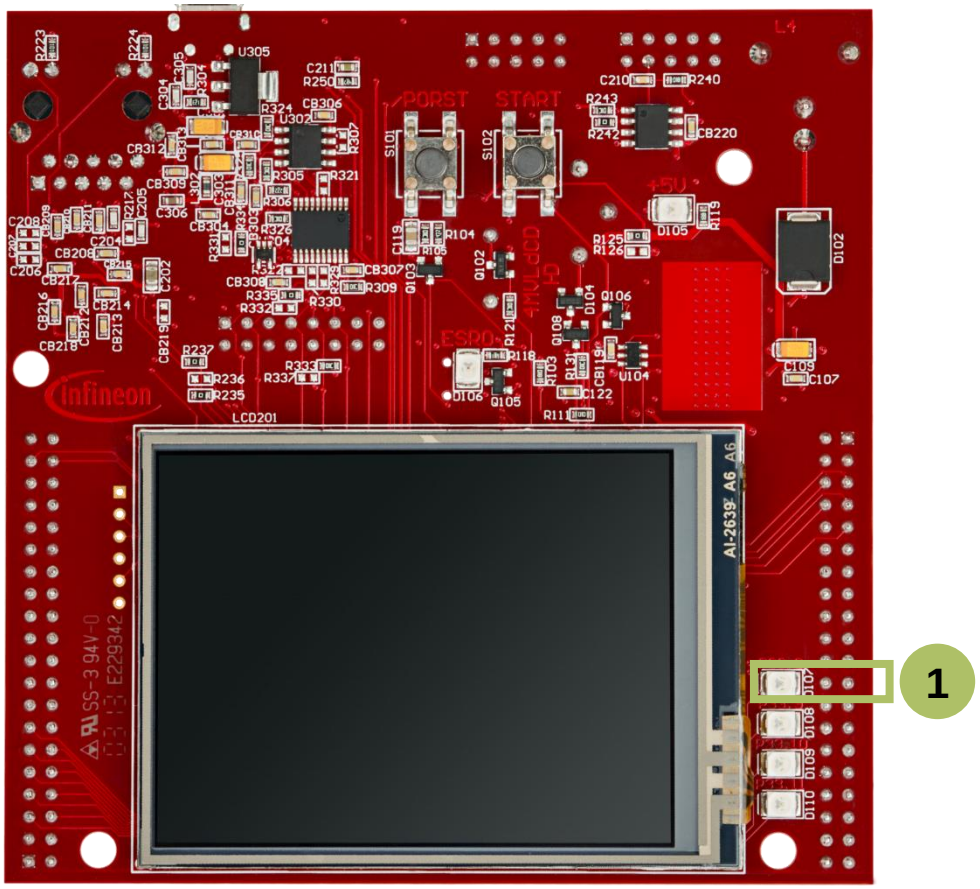
- The LED is initialized with the function ***IfxPort_setPinModeOutput()*** from the iLLD ***IfxPort.h***.
- The LED is switched off with the function ***IfxPort_setPinHigh()*** from the iLLD ***IfxPort.h***.

Toggling of the LED

- The state of the LED is toggled with the function ***IfxPort_togglePin()*** from the iLLD ***IfxPort.h***.
- This state is hold during one second with the function ***waitTime()*** from the iLLD ***Bsp.h***.

Run and Test

After code compilation and flashing the device, observe the **LED D107** (1), which should be blinking
at a frequency of approximately
1 Hz.



References

- AURIX™ Development Studio is available online:
- https://www.infineon.com/aurixdevelopmentstudio
- Use the *„Import...“* function to get access to more code examples.

- More code examples can be found on the GIT repository:
- https://github.com/Infineon/AURIX_code_examples

- For additional trainings, visit our webpage:
- https://www.infineon.com/aurix-expert-training

- For questions and support, use the AURIX™ Forum:
- https://www.infineonforums.com/forums/13-Aurix-Forum

Revision history

Revision	Description of change
V1.0.1	Update of version to be in line with the code example’s version
V1.0.0	Initial version

Trademarks
All referenced product or service names and trademarks are the property of their respective owners.

Edition 2020-12
Published by
Infineon Technologies AG
81726 Munich, Germany

Do you have a question about this document?
Email: erratum@infineon.com

Document reference
Blinky_LED_1_KIT_TC234_TFT

IMPORTANT NOTICE
The information given in this document shall in no event be regarded as a guarantee of conditions or characteristics ("Beschaffenheitsgarantie") .

With respect to any examples, hints or any typical values stated herein and/or any information regarding the application of the product, Infineon Technologies hereby disclaims any and all warranties and liabilities of any kind, including without limitation warranties of non-infringement of intellectual property rights of any third party.

In addition, any information given in this document is subject to customer's compliance with its obligations stated in this document and any applicable legal requirements, norms and standards concerning customer's products and any use of the product of Infineon Technologies in customer's applications.

The data contained in this document is exclusively intended for technically trained staff. It is the responsibility of customer's technical departments to evaluate the suitability of the product for the intended application and the completeness of the product information given in this document with respect to such application.

For further information on the product, technology, delivery terms and conditions and prices please contact your nearest Infineon Technologies office (www.infineon.com).

WARNINGS
Due to technical requirements products may contain dangerous substances. For information on the types in question please contact your nearest Infineon Technologies office.

Except as otherwise explicitly approved by Infineon Technologies in a written document signed by authorized representatives of Infineon Technologies, Infineon Technologies' products may not be used in any applications where a failure of the product or any consequences of the use thereof can reasonably be expected to result in personal injury.