Blinky\_LED\_1
for KIT\_AURIX\_TC397\_TFT
Blinky LED

AURIX™ TC3xx 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.



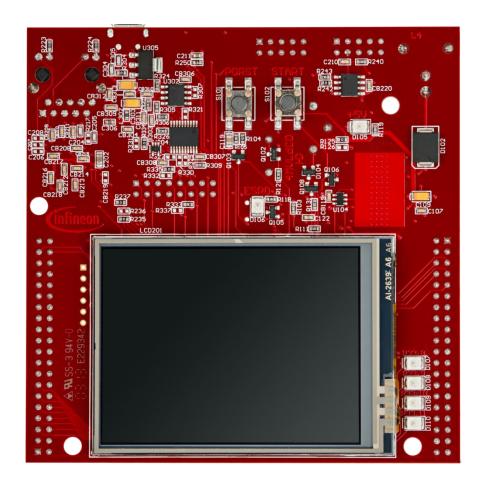
#### Introduction

- 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\_A2G\_TC397\_5V\_TFT.





## **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

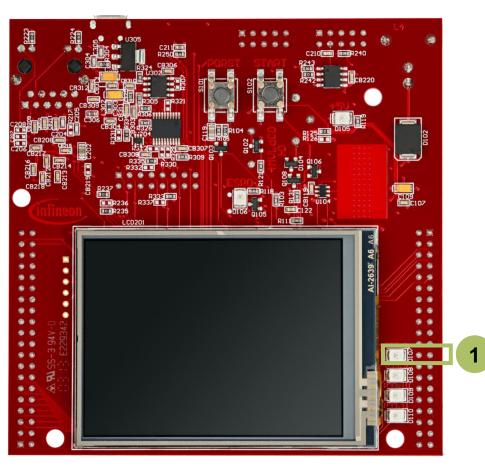
- The state of the LED is toggled with the function IfxPort\_togglePin() from the iLLD IfxPort.h.
- This state is hold during one second with the function waitTime() from the iLLD Bsp.h.



### 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

© 2020 Infineon Technologies AG. All Rights Reserved.

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

Document reference Blinky\_LED\_1\_KIT\_TC397\_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 (<a href="www.infineon.com">www.infineon.com</a>).

#### 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.