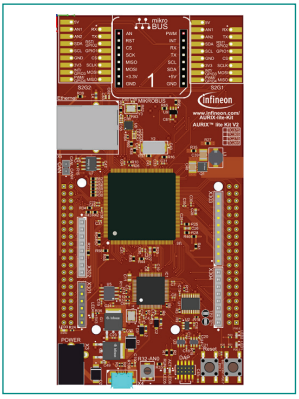
QUICK START GUIDE

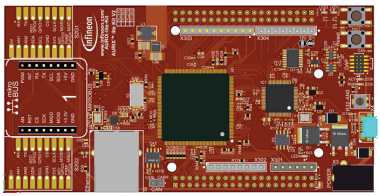
AURIX™ TC375 Safety Lite Kit

Kit contents

1. AURIX™ TC375 Lite Kit
2. USB-A to USB Micro-B cable
3. Quick start guide (this document)



www.infineon.com/aurixtc3xsafetylite



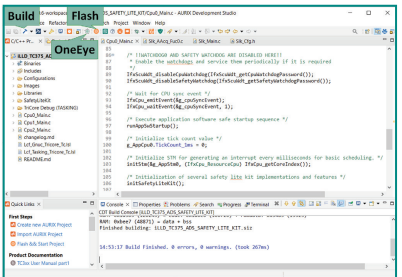
1 | Connect and power the board

Before you start

1. Ensure that you have the following:
   - AURIX™ TC375 Lite Kit
   - USB connector
2. Visit kit webpage to download and install the required software

Connect and power up the board

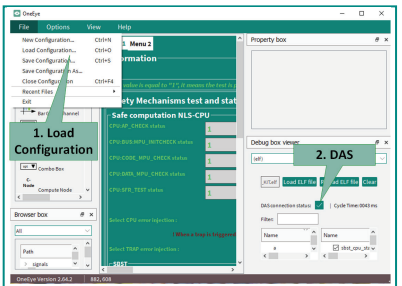
1. Connect the USB connector to the board
2. Connect the PC and the board with the USB cable.



2 | Powering the borad

Powering up the board

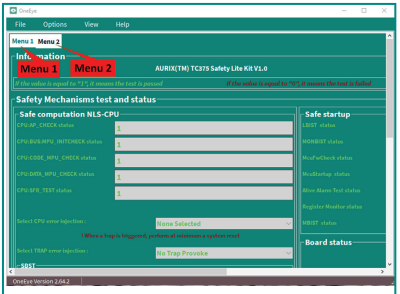
1. Open AURIX™ Development Studio (ADS)
2. Import the Safety Lite Kit project
3. Build the project
4. Flash the board
5. Launch the OneEye GUI



3 | OneEye GUI launch

Launching OneEye GUI

1. Import the OneEye configuration file for the Safety Lite Kit
2. Establish the DAS connection
3. Load the ELF file (if not loaded already)

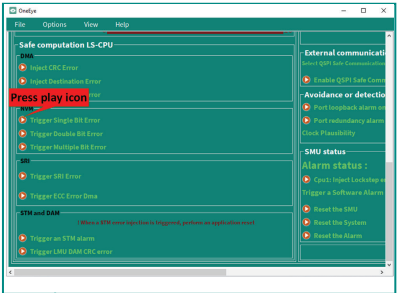


4 Safety Lite Kit GUI

Safety Lite Kit GUI

1. There are two menus implemented
   - Menu 1
   - Menu 2

Each menu displays the real-time status of board and test results along with the error injection .



5 Error or fault injection

Error or fault injection

1. The OneEye GUI allows error injection for different safety mechanism. For example, PFlash single bit error can be injected.
2. Press the **Trigger Single Bit Error** icon, turns red, to inject the error.

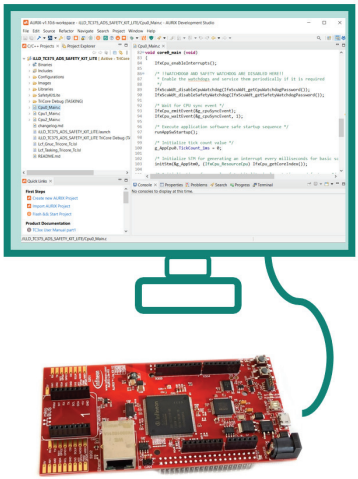
6 Single-bit error

Single-bit error injection

As result of **Trigger Single Bit Error** the **FSI_Pflash_1bitErr** message displays in the alarm status tab

1. SMU status window have the following three options:
   - **Reset the SMU (What is SMU)**: This option will clear all alarms.
   - **Reset the system:** This option will reset the whole system and the board to default condition.
   - **Reset the ALM**: This option will reset the alarm on the alarm status tab.

AURIX™ TC375 Safety Lite Kit



1 Safe startup
2 Analog acquisition
3 Digital acquisition
4 Digital actuation
5 Safe computation NLS-CPU
6 Safe computation LS-CPU
7 Safe state support
8 Port redundancy
9 Port loopback
10 External communication
11 Avoidance or detection of CCF
12 Coexistance of HW/SW elements
13 Register monitor test
14 Broken wire detection simulation

Additional resources

AURIX™ TC375 Safety Lite Kit:
– https://www.infineon.com/aurixtc3xsafetylite

AURIX™ Development Studio:
– https://www.infineon.com/aurixdevelopmentstudio

AURIX™ code examples:
– https://github.com/Infineon/AURIX_code_examples

AURIX™ Forum for questions and support:
– https://community.infineon.com

Document number: 002-41271 Rev. **
Date:03/2025

Published by Infineon Technologies AG
81726 Munich, Germany