EVK75024-110-940-1 EVK75024-80-940-1



Scope

This document describes the content of the customer package available to every customer buying an EVK75024-80-940-1 or EVK75024-110-940-1. A registration card inside the EVK package will allow customers to register on the Melexis website (https://www.melexis.com/EVK75024/register) and download the customer package.

EVK75024 Customer Package Contents

EVK75024's customer package includes a lot of tools to develop custom applications on Windows development platforms :

★ EVK75024 Installation Manual

• This document describes all steps required to install & use EVK75024 on your pc.

★ EVK75024 Spec sheet

 Document presenting the typical performance values measured with the EVK75024-110-940-1 and EVK75024-80-940-1.

★ How to Daisy Chain EVKs

• Short application note describing how to configure and use several EVKs together without them interfering with each other.

Software

★ C-C++

- BLT ToF API: Reference API to develop C/C++ applications with the EVK75024.
- BLT ToF API Example code: Example code on how to use the C/C++ API. It describes how to get somes images from the EVK75024, read/write registers and make calculations on the data.

★ EVK75024 Register Files

Several .bltreg files can be found in the software part of the customer package. These
files can be used together with the BltTofSuite for using predefined registers configurations
or revert to default settings the EVK75024.

★ Python SDK

• Development package used to configure and get data from the EVK75024 using Python.

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• Available for both Windows and Linux distributions.

★ MATLAB

- Matlab SDK: Development package used to interface MATLAB with the EVK75024.
- EVK75024 Matlab Visualizer: Example code on how to capture and display distance and amplitude images using MATLAB.

★ BltTofSuite

 BLT Tof Suite is a visualization tool developed by Bluetechnix. It is used for all their standard products. EVK75024 has a modified BLT ToF Suite in order to be compatible with all the features of the Gen2 chipset.

★ Latest firmware

EVK75024 firmware version v0.12.0.

★ EVK75024 Software User Manual

• This software user manual describes the necessary steps and settings to work with EVK75024 and describes firmware dependent interfaces up to API version v2.9.3.

Hardware

★ 3D Drawing:

- EVK75024-80-940-1 Illumination+SensorBoards.step
- o Full 3D Model.step

★ Illumination board :

- o Illumination board (LEDs & VCSELs) Schematics
- Illumination board Layout (LEDs) (Altium .PcbDoc)
- Illumination board BOM (LEDs)

★ Interface board :

- Interface board Schematic
- Interface board Layout (Altium .PcbDoc)
- Interface board BOM

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★ Lens:

- o Lens specification document
- Lenses 3D step files (with and without lens holder)

★ Sensor board :

o Schematic and Layout files. (Altium .PcbDoc)

Datasheets

- ★ MLX75024 latest datasheet.
- ★ MLX75123BA latest datasheet.
- ★ MLX75024&MLX75123BA reference register map with a complete register map with details for a typical time of flight application.

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