Infineon

Never stop thinking

UWLink© – TDA5230
Universal Wireless Link – Extension-Board

Dear Customer,

Thank you for working with Infineon Wireless Control products!

This UWLink Extension-Board will support you in testing Infineon's TDA5230 SmartLEWIS™ RX product and to develop and debug your Wireless Control application. Before you can experience the full capabilities of UWLink you have to download the latest package of complementary software and documentation from the Infineon Technologies www pages: **www.infineon.com/UWLink**

This UWLink Extension-board may be used in two alternative scenarios:

- Using the UWLink Mainboard as an open programmable XC886 microcontroller board: You can implement your own SmartLEWIS demonstration or application software using Keil's µVision 4 programming environment. A specific TDA523x library and SW-framework (low level SPI interface example code) simplify your work. A typical application example implemented on the TDA5230 UWLink is documented in the Application Note **TDA523x - MessageID Demo and Example**.
- Using the TDA5230 UWLink Extension-Board as a stand-alone-module with any other embedded system environment.

Important note: In contrast to other UWLink combinations, the TDA523x UWLink **may not be used** as a pre-programmed interface to an MS-Windows PC-Evaluation-Software (TDA523x Explorer).

On the next page you will find a short step-by-step guideline to start the UWLink TDA5230 Extension-Board together with the UWLink Mainboard. We strongly recommend reading the User Guides of the UWLink Mainboard and the UWLink TDA5230 Extension-Board before you start operating this UWLink combination for the first time.

For further support please contact your local Infineon Distributor, your responsible Infineon Sales Office, contact us directly at **wirelesscontrol@infineon.com** or call us at **0(0)800 951 951 951.** This is an international toll free phone number. In case this service is not supported in your country, you can find a complete list of Infineon service phone numbers at **www.infineon.com/customercarecenter**.

Please, don't forget to take notice of the legal disclaimer sheet.

We wish your development work using the SmartLEWIS product family will be successful.

Kit Content

- UWLink TDA5230 Extension-Board
- UWLink Mainboard
- 1 antenna, ¼ lambda - reduced size
- Legal disclaimer sheet

Software and documentation available for download at
www.infineon.com/UWLink
- UWLink Mainboard User Guide
- SILink System Interface Link SW
- UWLink Mainboard test SW

www.infineon.com/TDA5230
- TDA523x IAF Configuration Tool
- TDA523x Basic Application SW package

Order number of this TDA5230 UWLink combination:
- SP000559072

Other available UWLink Extension Boards:
- TDA5150 UWLink RF-board
- TDA5225 UWLink RF-board
- TDA5235 UWLink RF-board
- TDA5240 UWLink RF-board
- TDA7255V UWLink RF-board
- TDA5255 UWLink adapter-board for use with the original TDA5255 evaluation board

www.infineon.com/UWLink   www.infineon.com/TDA5230

UWLink© TDA5230 Extension-Board

Step-by-Step Quick Start Guide

Please follow this step-by-step approach when you start up your UWLink TDA5230 Extension-Board for the first time:

Important Note: The UWLink Mainboard setup including the installation of the DAS Device Access Server and the Keil C51 µVISION4 Tool Chain (see UWLink Mainboard Quick Start Guide and UWLink Mainboard User Guide) must be finalized **BEFORE** the software for the UWLink TDA5230 Extension-Board is installed!

Step 1 – Download and install TDA523x IAF Configuration Tool:
- Go to **www.infineon.com/TDA5230** and download the latest TDA523x - Configuration Software, e.g. **TDA523x_SW_IAFConfiguration_V2.0.0.zip**
- Extract the ZIP-archive to a temporary directory on your PC
- Execute **Setup.exe** and follow the on-screen instructions
- After creating a TDA5230 configuration this may be saved in a file (e.g. TDA523x_config.txt)

Step 2 - Download and install TDA523x Basic Application SW package:
- Go to **www.infineon.com/TDA5230** and download the latest Basic Application SW package, e.g. **TDA523x - Basic Application SW in C (TDA523x_SW_Basic Application_V1.0.zip)**
- Extract the ZIP-archive to a temporary directory on your PC
- Inside the ZIP-archive you will find a document named **TDA5230_Basic_Application_Software_Overview.pdf** for further instructions.

Step 3 – Convert TDA523x configuration file into C-header file
- In the PDF mention in Step 2 above you find a description (Chapter 3) how to convert the TDA523x configuration saved during Step 1 (TDA523x_config.txt) into a C-header file (e.g. TDA523x_config.h).

Step 4 – Create new project in the Keil C51 µVISION4 environment
- After opening a new project in the Keil environment add the following source files to your project:
  - o **TDA523x.c** and **TDA523x.h** included in subdirectory **Keil/TDA523x** of the TDA523x Basic Application SW package
  - o **TDA523x_config.h** which was generated during Step 3 above

Next Steps:
Now you are ready to program, compile and download your TDA523x UWLink application. An excellent starting point is the example project **TDA523x - MessageID Demo and Example** which is part of the TDA523x Basic Application SW package (see C-source file TDA523x_MID.c) and documented in the application note **TDA523x - MessageID Demo and Example.**

Antenna Colour Coding

- Green: 315 MHz
- Red: 434MHz
- White: 868 MHz
- Yellow: 915 MHz