

KAllink-UART

The driver for TPUART

„ Traditional connection for over one decade.“

KAllink-UART continues our successful tradition of supporting the TPUART. KAllink-UART is an enhanced version of our reliable and stable TPUART driver existing for almost a decade and used in a huge amount of devices.

Exemplary highlights are support of additional features like extended frame format and bus monitor mode for long frames. The interface to higher layers was redesigned for more flexibility in various environments and higher performance.

Interface functions like message received, send message and others make the usage almost self explaining and very easy to integrate in your project.

KAllink-UART can run in several instances. This is used to connect two or more TPUARTs, even in different modes e.g. one in normal mode, a second one in bus monitor mode.

KAllink-UART runs on almost every microcontroller. It is fully implemented in ANSI-C and independent of any target platform with or without any RTOS. All hardware dependent parts are isolated in a hardware abstraction layer.

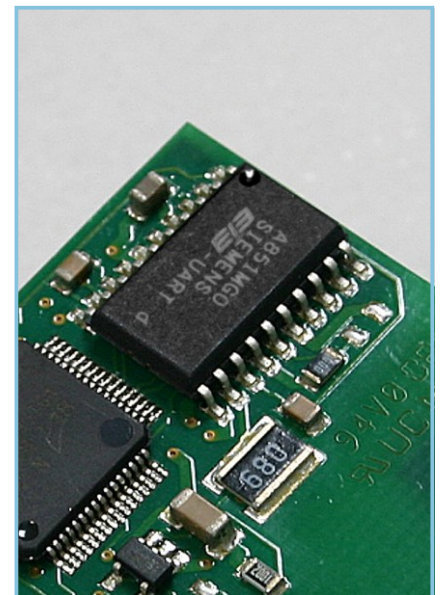
KAllink-UART is fully interrupt driven. It is available on various microcontrollers: ARM cores from various manufacturers, MSP430 from Texas Instruments, M16 and M32 from Renesas, Atmel, Freescale and others.

Different licensing models are available for object or source code license.

If needed, a separate evaluation board is available.



The traditional connection



Features

- Standard and extended frame format
- Long telegrams up to maximum of TPUART (64 byte)
- Normal Link Layer mode and bus monitor mode
- Adaptable address check with sorted list or filter table
- Reaction on bus controlled by address check: ACK, NACK, BUSY
- Receive or drop message controlled by address check

Packages

The TPUART driver is available in different packages :

Basic: All normally used features required to connect to KNX

Extended: Added features. For more efficient memory usage several libraries are included in this package.

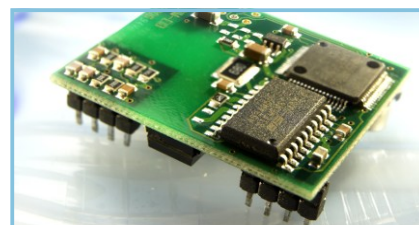
Source: The most flexible package. Adaptable to any usage.

Demo: A restricted version for evaluating **KALink-UART**

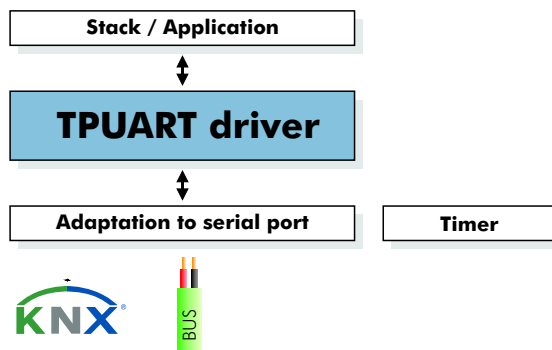
Feature \ Package	Demo	Basic	Full	Source
standard KNX frames (24Byte)	12 Byte	✓	✓	✓
long frames (64 byte)			✓	✓
busmonitor			✓	✓
multiple instances				✓
polling slave				✓
libraries basic		✓	✓	✓
extended				✓
source code				✓
address range	restricted	full	full	full
hardware adaptation in source code	✓	✓	✓	✓

The resources needed by **KALink-UART** can be summarised in the following table:

	Basic	Full	
	short frames	short	long
RAM (incl. rcv buffer)	~ 40 Byte	~ 40 Byte	~ 100 Byte
ROM	~ 2kByte	~ 2kByte	~ 2kByte
serial interface (interrupt driven)	✓	✓	✓
timer (1ms)	✓	✓	✓



Structure



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The data contained herein are subject of change without notice.



Im Gewerbepark A 15, 93059 Regensburg

+49941 307470 +49941 30747

@info@tapko.de

www.tapko.de