KNX Stack for XMC™ 1400/4000

AVNET SILICA

FOR HOME AND BUILDING AUTOMATION SYSTEMS

Stack implementation for KNX

The bus system KNX has evolved to become one of the most important solutions in the field of home and building electronic systems. It is an approved European (EN) and International (ISO) standard. The KNX Standard defines a complex communication protocol that requires a significant investment in terms of both implementation and certification. Avnet Silica contracted its partner Weinzierl to develop a new KNX Stack NGS offering a fully certified platform to develop bus devices in a very effective manner. Compared to legacy solutions you can radically reduce the typical development time, especially for complex applications.

Hardware architecture

The core of a KNX device utilizes a microcontroller that implements both the bus communication (KNX protocol) in addition to the application task. A new release is now available for Infineon XMC.
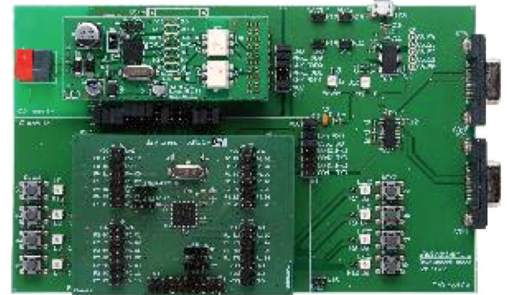
Infineon 32-Bit Industrial Microcontroller

One microcontroller platform. Countless solutions.

The Infineon XMC™ microcontroller family optimizes system cost and efficiency for demanding industrial applications.
Highlights include analog-mixed signal, timer/PWM and communication peripherals powered by either an ARM® Cortex®-M0 core (XMC1000 family) or a Cortex®-M4 core with a floating-point unit (XMC4000 family).

Development board with XMC1404 and UART from Elmos or On Semiconductor.

CONTACT

Hans Happ
Senior Business Development Manager
Phone: +49 2301 919 132
Email: hans.happ@avnet.eu

Thomas Rockland
Senior Technical Marketing Engineer MCU
Phone: +49 6122 5871 171
Email: thomas.rockland@avnet.eu

FEATURES

- System software for KNX devices
- KNX Media: Twisted pair (TP), Radio Frequency (RF), Ethernet (IP)
- Configuration method: System mode (ETS)
- KNX device model: System B
- Source-Code in "C"
- Evaluation boards
- Software tools
- ETS support
- KNX certified

Infineon   WEINZIERL

Firmware architecture

The firmware offers a very lean system especially designed for the needs of KNX bus devices. It includes not only the communication stack, but also a complete implementation of the standardized device model, called System B. All KNX resources like memory or properties are fully emulated by the firmware. So compatibility to the ETS software is achieved without any restrictions.
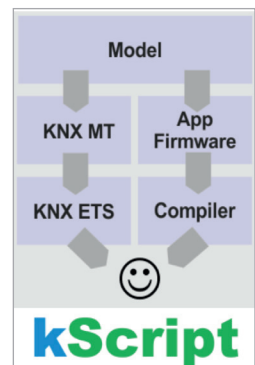
Support

Included in our package is a comprehensive training workshop. Additionally, we provide advice for your system architecture and of course, you will get full support during your development cycle.

KNX certification

One essential pillar for quality of the KNX System is product certification. Weinzierl's internal Test Lab accredited by KNX Association offers test services for KNX system software as well as for interworking.

Tool environment

Via the scripting tool kScript the KNX Stack NGS provides a model driven approach for application development. Via an application description in Python syntax kScript generates the database entry for ETS software as well as configuration and header files for the KNX Stack.