

# The KNX technology experts



TAPKO Technologies GmbH was founded in October 1999 by Klaus Adler and Petar Tomić. Both managing directors, Dipl.-Ing. (FH) Klaus Adler and Dipl.-Ing. Petar Tomić brought 10 years of experience with them as driving forces of the KNX scene.

The company's headquarters are located in Regensburg, a city in the south of Germany. Tapko is a full-fledged KNX member and certified according to ISO 9001.

Through its innovative capacity and collaboration with partners, TAPKO has developed from being a German KNX specialist to a European and international brand producer.

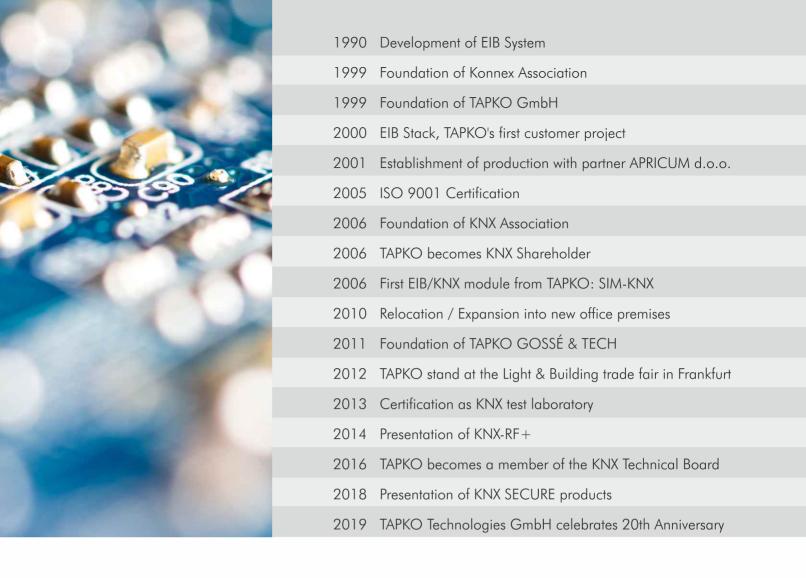
Benefiting from the cooperation with our trusted partner companies, TAPKO is able to offer one-stop solution for projects from all initial stages of product development up to the end production for KNX components.

Our portfolio is comprised of our complete range of services for product concept, product development and production. Following customer requests, TAPKO is able to contribute all necessary components and services for this.

Of course, TAPKO Technologies GmbH also offer its own devices that can be purchased as an OEM product.











# COMPE TENCE





TAPKO's innovative and motivated team of developers has an extraordinary spectrum of know-how and accomplishments. It has been repeatedly acknowledged in the KNX sector for its effective and intelligent solutions.

The whole KNX community benefits from our 30 years of experience, enriching technical competence and dedication to KNX. Our competitive advantage is to stay as an incubator for unique KNX product innovations, while making continuous and progressive developments for existing KNX products.

Since the founding of KNX, TAPKO staff have been actively participating in high-level KNX workgroups. Our customers benefit from this long-term knowledge transfer and exchange of experience. We have detailed insights into the KNX work groups' structure and procedures of work tasks.

We often introduce new topics to these committees and assist with the compilation or revision of specifications. In this way we are always well informed about current KNX developments.

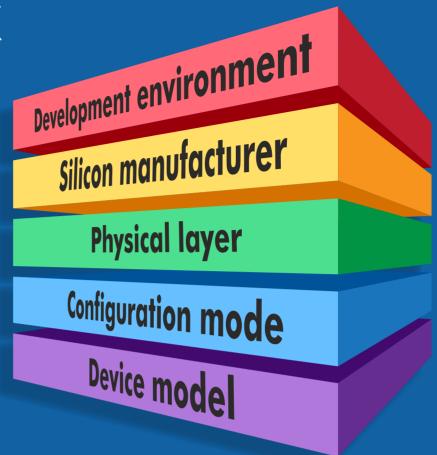


### MODULAR KNX DEVELOPMENT SYSTEM - EASE OF USE WITH KAIstack

Our TAPKO KNX communication stack, also known as the KAlstack, has been the central element of every KNX development since our early days. Before founding TAPKO, our two founders have each accumulated more than 10 years of experience in developing both KNX products and KNX systems. Coupled with the continuous research and hard work of TAPKO in the recent 20 years, KAlstack is successfully developed with permanent enhancements.

The basic structure of the KAIstack is modular, comparable to a unit construction system. It will be "assembled" according to the customer's requests and needs. In all cases the stack's core is the same. It is independent of the media used, the processors, the device type and mode of commissioning. This is a very important advantage: you have only one stack. It can be equipped with the required options as needed. Retrospective extensions and/or upgrades are thus simple to implement.

**KAlstack** 



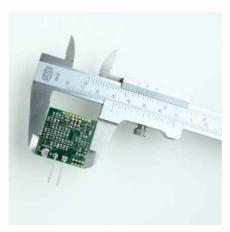
### FLEXIBLE WORK IN THE DEVELOPMENT PROCESS

The evaluation boards for KAlstack enable efficient product development with microprocessors from a diversity of manufacturers.



















### COMPLETE SYSTEM PRODUCTS FOR BUILDING AUTOMATION

As a communication specialist in the area of building automation, we have gathered in more than two decades of experience in communication between devices and in communication between a device and a user.

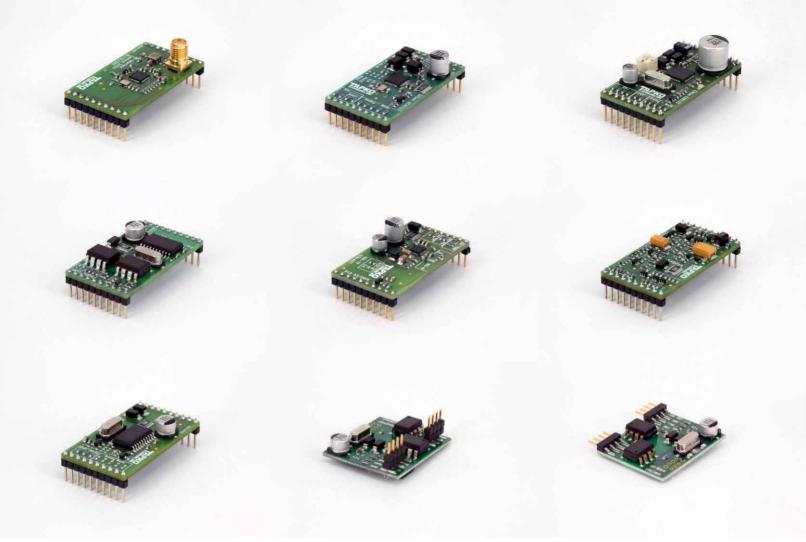
As a result, we offer not only technological solutions and platforms but also complete interfacing and connecting devices today. We call this range of products infrastructural products or system products. These devices are in function not visible to the end-user but of utmost importance for the KNX-system.

Our devices integrate technical perfection, optimal solution of requirements and the devoted spirit of the complete development team of TAPKO.

### White Label - ready for you

We develop and produce OEM products in the field of building automation for renowned companies. You can obtain neutral products from us or products with your own logo. As additional service, we offer the creation of the databases and/or the product registration with KNX. Optionally, the product can also be delivered complete with packaging and mounting/ instruction manual.





### A VARIETY OF READY-MADE MODULES FACILITATE DEVELOPMENT

In today's short product-lifetime-cycle development, time is of utmost importance. Highly complex communication tasks are therefore often implemented on a modular basis. These modules contain self-sufficient HW and complete SW for a generic application. Solutions based on modules containing Hardware and Software enable developers to concentrate on solving the requirements of their customers and can save time-consuming details.

TAPKO provides the optimal solution.

Modules can be delivered with a certified KAlstack, with or without an application, or as plain module without any SW. Using modules is especially recommended for generating KNX enabled devices in a minimal period of time.



### **SOLUTIONS FOR CUSTOMER-SPECIFIC REQUIREMENTS**

Our development services focus heavily on the area of building automation with KNX.

TAPKO's range of activities includes for example:

- Drafting of specifications
- Hardware and software development
- Prototyping
- Generating of database entry
- Conducting test series
- KNX certification
- Preparation of mass production

Depending on the requirements of a KNX device, we develop the product based on standard components or our own TAPKO KNX stack. After an extensive consultation with the customer, we decide the best solution for the product.

We carry out both full and partial developments. If TAPKO is commissioned with the full development, this usually means everything from prototyping to certification.

Examples of customer-specific developments depend on requirements regarding functionality, complexity, development time, development costs and price per unit. There are various possibilities for our cooperation. Please contact us.

Some sample developments are:

- Gateway
- IP-Router
- Lighting control
- Presence detector
- Card reader
- Heating control (fan coil)
- and many more



### **SUPPORT - WE ARE GLAD TO HELP YOU**

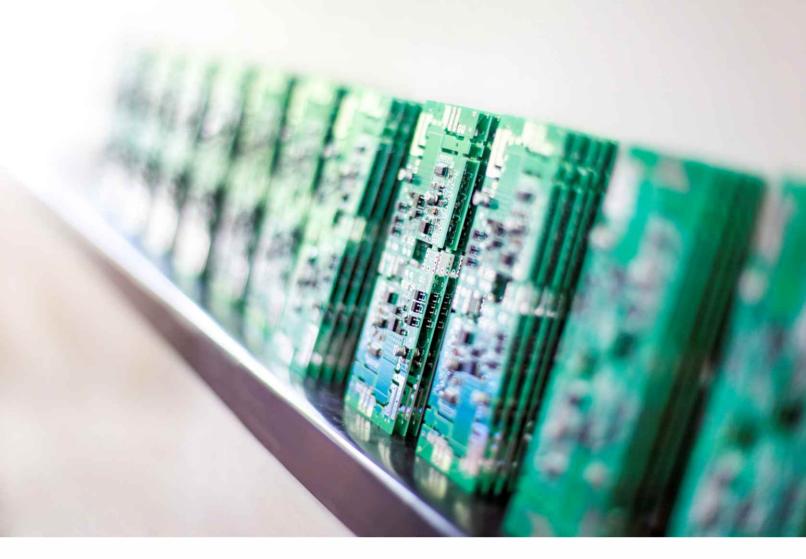
Besides the support from in-house development, we also offer a comprehensive service package for external development. We have comprehensive knowhow in this field, no matter which standard bus coupling, interfaces and applications are needed. We offer you professional support in your complete development services, we are happy to take over parts of it and/or assist you with error diagnostics.



The following services can be obtained from us as needed, whether individually or in combination:

- KNX-Training
- Product definition (requirements, functional specification)
- HW-development
- Circuit design support
- Complete design
- Mechanical adaption/housing
- Approval (CE...)
- Prototyping

- SW-development
- Test support
- Database creation
- KNX-registration
- Testing
- Preparation of certification
- Certification
- Industrialisation



### **EVERYTHING FROM A SINGLE SOURCE - PRODUCTION IN EUROPE**

We offer the complete production process - from material procurement to assembly, testing, packaging and global distribution in the field of building automation.

In our professionally equipped production facilities in Split, Croatia, we produce highly specialized KNX products. We offer documented quality, reliability and on time delivery at reasonable prices. Although a typical production batch ranges from 4,000 to 10,000 pieces, we are equipped to produce from low quantity prototypes to main production volumes of up to 100,000 assemblies per product per year.

We handle the lifecycle management for components (last order, last buy) and the worldwide purchasing of materials. We produce with complete or partial provision of the materials by the customer and offer the development of flexible test environments (ICT, performance check, burn-in).

### Automatic mounting of PCBs

Efficiency, quality and rapid delivery are basic elements in the production processes of our products.

Certification according to the ISO 9001 quality standard and customers' audits ensure the consistent high quality of your electronic products.

### Quality and Service

Highly qualified personnel test all electronic devices after production. We carry out functional tests, final tests as well as static and dynamic temperature tests.









### **KNX-CERTIFICATION OF YOUR PRODUCTS**

An essential step in product development is the final verification of conformity with the KNX standard - also know as KNX certification. During certification, it is necessary to make sure that data points for physical values use the correct data format and are interpreted correctly.

In order to simplify product development for our customers and reduce the number of necessary contacts, we have set up our KNX-certified test lab. This is where your products are tested for interoperability according to your requirements and the KNX specifications and where assistance and product testing are offered as developmental supports.

For customers who have developed their own communication stack, we offer further testing besides the KNX conformity check. These additional tests include stress tests, completeness tests and assessment of the stability of the implementation.

The services provided by our KNX-accredited testing laboratory are subject to the KNX regulations.





### REPUTABLE CUSTOMERS WORLDWIDE

Made in Germany - Made in Europe! From our think tank in Germany, TAPKO has built up an integrated network of partners today. Although the world is TAPKO's oyster, we cherish working together and build long-lasting relationships with our partners; we treat our committed partners like our own family.

# Apricum

TAPKO's longtime partner - Apricum manufactures the developed products in Croatia.

APRICUM is not only a certified European manufacturer, but also heads the KNX training center in Split where international knowledge transfer takes place.



### **CONTINUOUS IMPROVEMENT DRIVES US**

- High performance products from TAPKO are built with intelligent ideas from our engineers.
- Intelligence and advanced technology is enclosed in every TAPKO product.
- This technology advances continuously with growing demands from our global customers.
- Our unequivocal commitment to better technological solutions is a commitment for the future.









## www.tapko.de



TAPKO Technologies GmbH Im Gewerbepark A15 Germany - 93059 Regensburg

Phone: +49 941 30 747- 0 Fax: +49 941 30 747- 29

E-Mail: info@tapko.de



