

Network architecture, security and distributed functions

Besides the EE architecture (topology, technology and function), the FKFS has been working with in the area of security surrounding the vehicle for many years. More and more, this includes the network security from physical layer via protocol layer up to data and system integrity.



Test bench for network architecture



Dissertation on the topic of Network Security, ISBN 978-3-8169-2797-6 Test Bench for Network Architecture

Software and hardware

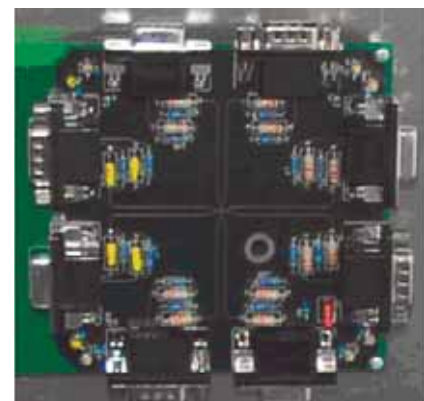
In the development of software and its components, the FKFS can built on many years of experience in the fields of model-supported software development and generic C programming.

Particularly the following subject areas are dealt with in cooperation with industrial companies and supervisory organizations:

- Development of reliability metrics of serial data transfer systems (e.g. FlexRay)
- Unique identification of software and hardware components for distributed systems

- Cryptography for off-board and on-board communication
- Manipulation examinations, detection and prevention in theory and practice

In use are off-the-shelf target systems from real-time computer via 32-bit floating point CPU up to 16-bit CPU on an evaluation board. If they are not sufficient, these systems are being modified or completely manufactured in-house.



FKFS FlexRay Passive Star with identical stub lengths