Outline How to use the CAN with Linux

1. Basic knowledge of CAN

Briefly introduce the CAN protocol, its history and its application fields, its reference International standards.

And also introduce the implementation CAN with Linux, Socket CAN. Socket CAN uses the Berkeley socket API, the Linux network stack and implements the CAN device drivers as network interfaces.

Why using the Socket CAN, its advantage and shortcoming.

1. the CAN interface with SAMA5D3
   1. SAMA5D3 CAN interface.

Briefly describe the CAN interface features.

* 1. CAN driver with Linux

Describe how to implement CAN driver for SAMA5D3 with Linux for Socket CAN.

The CAN network driver interface, device properties, setting the CAN bit-timing, and so on.

* + 1. Configure the kernel make CAN work.

1. Using CAN.
   1. Configure and test CAN interface.

Mainly introduce two packages: ip-route2, can-utils, which are the Socket CAN tools.

Take the example in detail to how to use ip-route2 to show and set Socket CAN and how to to use can-utils to test Socket CAN.

* + 1. how to build thes e package with build root.
  1. Application development with CAN interface

Give a simple application example with using Socket CAN.

1. CAN Conformance Testing,

Briefly introduce CAN Conformance Testing, reference to ISO 16845.

And SAMA5D3 CAN interface conforms to CAN protocol defined by Robert Bosch GmbH, the CAN specification as referred to byISO/11898A (2.0 Part A and 2.0 Part B) for high speeds and ISO/11519-2 for low speeds.

1. CAN application system example

Give an example to illustrate the application system using CAN, for example, the CAN building management system.