

Baby-LIN-RM-II

LIN & CAN restbus simulator with digital in and output



Using the new Baby-LIN-RM-II you can control devices with a LIN or CAN bus interface via a standard computer. The only requirement is a USB interface. Additionally, LIN and CAN devices can be controlled using digital signals only.

This makes it easy to add LIN or CAN bus communication capabilities to PLC based test equipment like durability test facilities, validation tests etc. The Baby-LIN-RM-II is equipped with a 32-bit microcontroller that handles all time-critical operations such as message formatting and the decoding of the bus protocol.

The standard issue software suite **LINWorks** version 2 ensures high usability. Based on LDF or DBC files a configuration can be set up within minutes. This configuration can define which nodes from the bus will be simulated by the Baby-LIN-RM-II (restbus simulation) or how a change of state at the digital inputs will change bus signals or trigger a macro. Via the digital inputs PWM signals can be read, scaled and mapped to bus signals.

Furthermore, the module's digital outputs can be controlled by the values of the bus signals. For instance an output can be set, if a signal is equal to, not equal to, greater or less than a reference value. It also can be tested, if a certain signal value is within a given range or not.

The implemented LIN driver supports bus voltages up to 36 volts and can be used to up to 200 kbit. These way even nodes that operate outside the standard limits of the LIN specifications can be controlled with the Baby-LIN-RM-II.

One CAN interface is designed as a high-speed interface according to ISO-11898 with a SN65HVD251 driver while the other interface utilizes a fault-tolerant

low-speed physical layer according to ISO-11519 with a TJA1054 transceiver.

Additionally, the Baby-LIN-RM-II offers two programmable buttons that may be configured to control the start and stop function of the bus.

The configuration can be transferred via USB from the PC to the device and there be stored in a non-persistent manner. This enables operating the device without the presence of a PC.

Via a PC real time signal values can be read and written while operations are in progress. This can be done via SimpleMenu found in the **LINWorks** suite or by a custom product or even via the API functions of the DLL.

Simulations for CAN and LIN can be done simultaneously.

All communication interfaces (LIN, CAN and USB) as well as the digital inputs are galvanically isolated from the module's logic circuit.

LINWorks-V2 suite is compatible to WINXP, WIN7 and WIN8. A Linux version is available on demand.

Specifications

- ARM Cortex M4 CPU, 1 MByte Flash, 4 MBytes RAM
- Supports LIN versions V.1.2 to V.2.1
- 5-pin USB connector, type B-Mini, galvanically isolated
- 8 digital inputs, 8...32 V DC, galvanically isolated
- 4 digital outputs, open collector, 36 V, 1 A
- 2 buttons (programmable)
- LIN bus: Transceiver SI9241 (up to 200 kBaud)
- CAN bus: Transceiver SN65HVD251 (ISO11898)
Transceiver TJA1054 (ISO-11519)
- Supply 8...32 V DC, 250 mA (at typ. 24 V)
- Incl. 1.5 m USB cable
- Incl. **LINWorks-V2** PC software
- Dimensions: 130 x 75 x 55 mm (L x W x H)

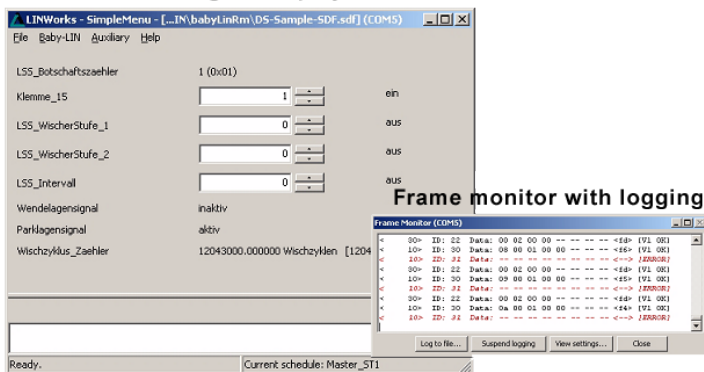
Ordering information

The Baby-LIN-RM-II can be ordered in different configurations.

All configurations are based on the same device. Through access codes the functional range can be extended beyond the basic unit. This can be done subsequently.

Article no.	Article	Description
8000744	Baby-LIN-RM-II	Basic unit supports the LIN interface according to SDF Version V.2.x (LINWorks 1.x)
8000800	Option BL-HARP SDFV3-LIN	Activation for the Baby-LIN-RM-II to support extended options from the LINWorks V2.x (SDF V.3.x)
8000810	Option BL-HARP SDFV3-CAN-HS	Activation for the Baby-LIN-RM-II to support CAN High Speed interface (LINWorks-V2, SDF V.3.x)
8000820	Option BL-HARP SDFV3-CAN-LS	Activation for the Baby-LIN-RM-II to support CAN Low-Speed interface (LINWorks-V2, SDF V.3.x)

Real time LIN signal display via PC



Test item

