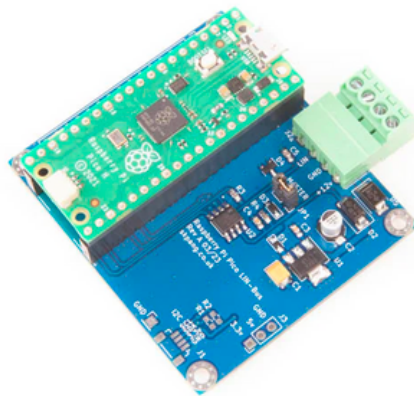




LIN Bus Systems For Automotive Application Development



Copperhill Technologies, a provider of embedded systems for LIN Bus automotive applications, offers a great selection of products for various embedded platforms, such as the Raspberry Pi, the Arduino-compatible Teensy, and breakout boards for generic embedded systems.

GREENFIELD, Mass. - Aug. 28, 2023 - [PRLog](#) -- LIN (Local Interconnect Network) is a serial network protocol used for communication between vehicle components. It is a single-wire, serial network protocol that supports communications up to 19.2 Kbit/s at a bus length of 40 meters (~120 feet). [Copperhill Technologies](#) offers a variety of [embedded solutions for LIN Bus applications](#).

The [Raspberry Pi Pico LIN Bus board](#) supports the programming of automotive applications using [MicroPython](#). The RPi Pico is a low-cost, high-performance microcontroller board with flexible digital interfaces. It features two ARM Cortex-M0+ cores that run up to 133MHz, 256KB RAM, 30 GPIO pins, and a wide range of interfacing options. These features are paired with 2MB of onboard QSPI Flash memory for code and data storage. In addition to powerful hardware resources, the Pico offers rich and complete software support and community resources. It comes with a complete Raspberry Pi official C/C++ SDK, Micropython SDK.

This [PiCAN FD board](#) has a LIN Bus interface, and the Microchip MCP2518FD IC provides classic CAN and CAN FD. A dsPIC33 microcontroller provides the LIN Bus connection. Communication to the Pi is per UART on ttyS0 using ASCII text commands. A sample LIN-bus GUI app is available, written in Python3 and tkinter. The firmware is updatable using the Microchip UnifiedHost java app, which requires the Raspberry Pi to run in GUI mode. There is an easy-to-install SocketCAN driver, and programming is supported in C or Python. The 3A SMPS (Switch Mode Power Supply) module powers the PiCAN FD LIN-bus board and Raspberry Pi from 7 VDC to 24 VDC external supply.

The [Teensy 4.0 with CAN FD and LIN Bus](#) is a CAN FD breakout board for use with the Teensy 4.0 (included in the scope of delivery). It has an onboard 5 VDC regulator with reverse voltage protection and a

CAN FD transceiver. The Microchip MCP2004A chip provides the LIN Bus connection. The Teensy is a complete USB-based microcontroller development system compatible with Arduino software and libraries. It comes with a minimal footprint and is capable of implementing many projects. All programming is accomplished via the onboard USB port.

Furthermore, Copperhill Technologies offers a [LIN Bus breakout board](#) with a Microchip MCP2004A transceiver for all other embedded systems. The connection between the LIN bus breakout board and an embedded system, such as the Arduino, is a simple standard UART connection. The board complies with SAE J2602 and meets LIN Bus Specifications 1.3, 2.0, and 2.1. It can operate in Master or Slave mode through an onboard jumper.

Contact

Wilfried Voss

***@copperhillmedia.com

14132132500

--- End ---

Source	Copperhill Technologies Corp.
City/Town	Greenfield
State/Province	Massachusetts
Country	United States
Industry	Automotive , Computers , Electronics , Software , Technology
Tags	LIN Bus , Can-bus , SAE J2602 , Embedded System , Raspberry Pi , Raspberry Pico , MicroPython , Teensy , Arduino , CAN FD
Link	https://prlog.org/12981380



Scan this QR Code with your SmartPhone to-

- * Read this news online
- * Contact author
- * Bookmark or share online