

CAN Newsletter Online

CAN TOOLS AND BACKGROUND

CAN data streaming and electronic CAN guide

CSS Electronics recently enabled its CANmod sensor-to-CAN modules to stream acquired data in real-time. It also added online tools for OBD-II, J1939, and CAN FD to its portfolio. Further, the company introduced a 100-page CAN guide as PDF.



The recent firmware update allows the CANmod.temp to stream data from thermocouple probes in real-time via USB (Source: CSS Electronics)

The CANmod data can be streamed via USB using the SavvyCAN software tool. The device series includes CANmod.gps, CANmod.temp, and CANmod.input modules. The modules are typically deployed as standalone devices to inject sensor data into the CAN networks or as add-on devices e.g. for a CANedge data logger or third-party CAN data acquisition hardware. The manufacturer also informs the reader about [how to start streaming](#).

A [USB streaming case study](#) illustrates how the recent feature can be used. Here, the CSS co-owner Christian Steiniche deployed the CANmod.temp to conduct real-time analyses of temperature curves from his hobby reflow oven for PCBs (printed circuit boards).

Online tools for J1939, OBD-II, and CAN FD

CSS recently launched three online tools. The [OBD2 PID lookup & converter](#) allows to look up the OBD-II parameters by PID (parameter identifier) or name to see relevant information and to perform parameter decoding.

The [CAN ID / J1939 PGN converter](#) enables to convert the 29-bit CAN-IDs to J1939 PGNs (parameter group numbers) and vice versa. In addition, the tool allows to check which PGNs are included in firm's J1939 DBC (data base CAN) and NMEA 2000 DBC files.

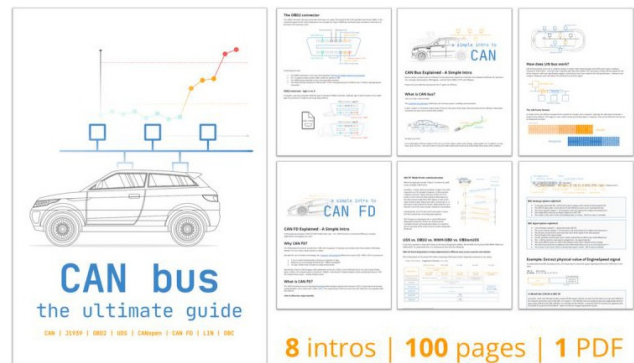
The [CAN FD efficiency calculator](#) compares Classical CAN frames with CAN FD frames, with focus on the efficiency of each. The payload size, arbitration phase bit rate, and data phase bit rate can be modified. The tool also produces a visualization of the frames.

CAN guide as PDF

The company created a CAN guide named "[CAN Bus - The Ultimate Guide](#)". This 100-page PDF tutorial includes the full content of the company's eight "Simple Intro" articles. These introduce into the topics CAN, J1939, OBD-II, UDS (unified diagnostic services), CANopen, CAN FD, [LIN](#) (local interconnect network), as well as DBC files.

Recently, CSS complemented the PDF guide by an [introduction to CAN bus errors](#). This 9th chapter explains what the bus errors are and includes the descriptions of the CAN error frames, types, and counters. It further contains six practical experiments, error logging use cases, as well as an FAQ (frequently asked questions) section.

To get the guide as PDF, interested parties have to subscribe for the CSS' newsletter informing about latest activities of the provider.



The comprehensive CAN guide contains helpful background information for CAN users (Source: CSS Electronics)

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