(Source: Adobe Stock)

News in this regular column came in, close to the editorial deadline. Nevertheless, they have been doublechecked on accuracy and correctness.

IAA 2026: Remote control devices

Linda Nyquist-Evenrud
(Source: Allgon)

Allgon Group brings its family of remote-control brands – Åkerströms (Sweden), Sistematica (Italy), and Tele Radio (U.S.A.) – to the IAA Transportation fair in Hanover (Germany), held from 15 to 20 September 2026. Together at Hall 12, stand D40, the three companies present their remote-control products for commercial road vehicles, mobile machinery, and transport applications. Some remote-control receivers feature CAN connectivity. The solutions by Åkerströms and Tele Radio optionally support CANopen and Sistematica offers an optional J1939 assist.

"IAA Transportation is where the future of transport and logistics takes shape, and it's the perfect stage to show what Allgon Group can offer when Åkerströms, Sistematica, and Tele Radio come together under one roof. Each brand brings its own strength to mobile applications, and together we can offer customers a more complete answer to the safety and reliability challenges they face every day." said Linda Nyquist-Evenrud, CEO at Allgon Group. The group is the parent company of the above-mentioned brands. It is one of the leading players in the radio remote control business for industrial vehicles, including cranes. *hz*

For IoT applications

(Source: Espressif)

Espressif (China) has launched the ESP32-S31 system-on-chip (SoC), a dual-core processor with a CAN on-chip protocol controller. The component is intended for IoT (Internet-of-Things) devices, featuring 1-Gbit/s Ethernet, Wi-Fi 6 (IEEE 802.11ax), and Bluetooth 5.4 connectivity. It integrates a dual-core, 32-bit RISC-V microcontroller running at 320 MHz with an MMU (memory management unit) and 60 GPIO (general-purpose input/output) pins. One core features a 128-bit data path with SIMD (single instruction, multiple data) support, enabling parallel processing.

The TWAI (Two-Wire Automotive Interface) on-chip protocol controller implementation conforms with CAN CC (classic), supporting 11-bit and 29-bit CAN data/remote frames. It does not support CAN FD (flexible data rate) data frames and interprets them as a failure, transmitting a CAN error frame. *hz*

CAN FD transceiver

The TLE9351BVLE transceiver by Infineon complies with ISO 11898-2 and fulfills also the SAE J2284-4/5 specifications. It is intended for automotive (AEC-Q100) and industrial applications. The CAN FD transceiver I suitable for bit rates up to 5 Mbit/s. This means, it complies with SAE J1939/17, a physical layer specification for commercial vehicles using 500 kbit/s in the arbitration phase and 2 Mbit/s in the data phase.

For permanently supplied devices, the transceiver chip provides a standby mode. In standby mode, the power consumption of the chip is optimized to a minimum, while the transceiver is still able to recognize wake-up patterns on the CAN network and signal the wake-up event to the microcontroller with the on-chip CAN protocol controller.

Depending on the voltage level at the V_{IO} pin, the transceiver can be connected to 3,3-V or 5-V microcontrollers. The component features TxD timeout and overtemperature protection. It is RoHS-compliant (Restriction of Hazardous Substances), meaning they are suitable for Pb-free soldering. *hz*

Open-source CANopen stack with lift profile support

CiA member Xyntos (CH) has released a CANopen CC (classic) protocol stack for embedded systems, under the Apache License 2.0. The stack is written in object-oriented C++17 and is aimed at developers who want a maintainable CANopen implementation rather than a configuration-driven code generator. This means, a device is a C++ class, the object dictionary is a class with typed entry objects, and callbacks are virtual methods of listener interfaces.

CANoopEn
CANopen Stack C++/OOP

The protocol stack implements NMT, heartbeat, SDO server and SDO client (including block transfer), PDO and MPDO, SYNC, TIME, EMCY, LSS (CiA 305), and NMT boot process (CiA 302-2) services. Additionally, the protocol stack supports the CANopen lift application profile (CiA 417). The object dictionary is generated from a standard EDS (electronic data sheet) file (CiA 306) by the included Eds2Od tool. The stack uses no dynamic memory allocation, is target-independent, and every service can be compiled out to fit small flash budgets.

Sample projects for the ST Nucleo-C092RC board demonstrate a CiA 401 I/O device as well as a CiA 417 lift call panel with the matching call controller — a hall call is registered on one board and acknowledged by the other device. The stack, samples, unit tests, and tools are available on GitHub; the documentation is at CANoopEn.net. *hz*

Protocol converter devices and more

DIN-rail mountable CANopen-to-ModbusTCP gateway (Source: Odot Automation)

Recently, Odot Automation (China) has become CiA member. The company founded in 2003 offers I/O devices, PLCs (programmable logic controllers), and protocol controllers for different communication systems. This includes products, featuring CANopen connectivity. For example, the MG-CANEX CANopen-to-ModbusTCP gateway. On the CANopen side, it features NMT (network management) manager functionality. The product supports synchronous and asynchronous PDOs (process data objects), SDOs (service data objects), and Heartbeat services. Up to 16 CANopen devices can be connected to the gateway. On the ModbusTCP port, it acts as a TCP (transmission control protocol) server and can be accessed by five TCP clients at the same time.

Additionally, the Chinese company manufactures the C4374 PLC running Codesys, providing a CANopen NMT manager interface. The modular design supports up to 32 expansion modules. In the company's portfolio is also the CN-8021 CANopen bus coupler, which implements the CiA 401 profile for modular I/O devices. The company's modular I/O devices use an embedded, device-internal CANopen network to connect I/O modules. All the products are distributed via a network of more than 100 partners. *hz*

Autonomous tractor with agriculture robot

Sabanto (U.S.A.) and Verdant Robotics (U.S.A.) have linked their products by a CAN network. Sabanto retrofits agriculture vehicles to make some driving autonomously. Verdant Robotics offers the Sharp-Shooter, a precision farming implement, which works automatically like a robot. The combined products navigate and operate without a human being in the cab.

This integration enables a new level of autonomous precision farming. The Sharp-Shooter runs behind a Sabanto-equipped autonomous tractor. This approach can identify individual plants and weeds and apply inputs only where needed. The system allows for continuous, labor-free field operations with the tractor navigating the field and powering the implement. Sharp-Shooter communicates directly with the Sabanto-equipped tractor through a CAN network, feeding real-time field data to Sabanto's autonomy system during active navigation. Based on that data, the Sharp-Shooter directs the tractor to adjust speed and implement height based on conditions in the field. The decisions a skilled operator would make from the cab are now executed autonomously by the combined system. *hz*

(Source: Sabanto, Verdant Robotics)

Regular columns

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The iCC is the one-of-a-kind platform for presentation of CAN developments. Experts from all over the world and from the most diversified application areas have met since 1994 at this international event. The conference is unique in its target group and offers attendees the opportunity to become acquainted with the latest developments in CAN technology.

Location:

Schloss Tutzing, Schlossstr. 2+4, 82327 Tutzing, Germany

(Source: Oryk Haist/eat archiv)

iCC registration

CiA members	Non-members	Co-speakers
Early bird February 5, 2027 **578,00 €** without German VAT	**Early bird** February 5, 2027 **715,00 €** without German VAT	**Early bird** February 5, 2027 **440,00 €** without German VAT
Regular **660,00 €** without German VAT	**Regular** **825,00 €** without German VAT	**Regular** **506,00 €** without German VAT

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