

# Embedded World 2026: Focus on Edge AI and Embedded AI



Figure 1: About 1300 exhibitors presented their products and services to about 23000 visitors (Source: Embedded World)

*The trade show took place under politically challenging circumstances: wars between Israel/U.S.A. and Iran as well as between Russia and Ukraine with related travel restrictions. Nevertheless, the fair was a success with 36000 visitors. AI (artificial intelligence) was one of the main topics. Especially, Edge-AI and Embedded/Physical-AI products provided often CAN connectivity.*

From March 10 to 12, the international embedded community gathered at the Exhibition Centre Nuremberg for the 24<sup>th</sup> edition of the Embedded World exhibition. With visitors from almost 90 countries, the trade fair recorded an increase of more than 13 percent compared to the previous year. The next edition will take place from March 16 to 18, 2027.

CiA was present with its own both. For the first time, CiA organized round-table discussions on dedicated topics, ranging from CAN XL via cybersecurity to artificial intelligence (AI). Additionally, CiA co-organized a CAN session on the Embedded World conference; Reiner Zitzmann (CiA) chaired this session. Most of the exhibiting CiA members were satisfied with the trade show results and CiA has already booked a booth for the next year.



Figure 2: Awarded M.2 module with four CAN FD ports (Source: Cervoz)

On the Embedded World 2026, CiA member Cervoz (Taiwan) was awarded for its CAN FD expansion boards (community choice). The honored MEC-CAN-2F14i is

a quad CAN FD module for embedded PCs. The card follows the M.2 standard, which is compliant with the PCI Express x 1 classification and the M.2 form factor. This board fits in host computers, which have M.2 slots. It provides four 9-pin D-sub connectors to link it to CAN cables. The CAN ports feature a 2,5-kV isolation. The interface module supports SocketCAN driver software.

## Embedded AI is coming

Board-level products for Edge-AI applications are available since some years. This year, several companies launched Embedded-AI modules, many of them are located in Taiwan. Edge-AI products can operate without cloud connection, but provide one. Embedded-AI solutions do not provide cloud connectivity at all. Sometimes, they are also named Physical AI, especially when the products provide actuation capability. Others use the term Endpoint AI. Key features of such AI products are low-power consumption, high flexibility, and real-time capability.

Microcontrollers for Embedded/Physical-AI applications are the basis for such board-level products. Often, they are based on Arm cores in combination with a neural processing unit (NPU), able to boost ML (machine learning) operations. Some of them feature CAN connectivity. On the Embedded World 2026, NXP (Netherlands) presented its i.MX 93 family of SoCs (system-on-chip). These products are supported by the company's eIQ AI-development environment. They come with an on-chip CAN FD protocol controller. There are available dedicated versions for automotive, industrial, and home-automation applications. ▶

They are based on an Arm Cortex 55 core and an Arm Ethos NPU.

Other chipmakers like Ceva, Infineon, Renesas, Rohm, and STMicroelectronics (STM), have developed similar microcontrollers with NPUs for Embedded-AI devices. Several of such products feature CAN connectivity. A typical example is the Stellar P3E microcontroller by STM: It provides the Neural-Art accelerator for Embedded-AI applications. The product is intended for automotive powertrain ECUs (electronic control units) with an on-chip CAN XL protocol controller. The onchip AI accelerator, a dedicated NPU, enables the development of smart sensor fusion devices. By offloading AI workloads from the main cores, this NPU accelerates inference execution without compromising real-time behavior or functional safety. This microcontroller combines a multi-core cluster of



Figure 3: The Embedded-AI microcontroller i.MX 93 series features CAN FD connectivity (Source: NXP)

### Analysis environment with real-time plotting

**K**vaser (Sweden) has presented the CanKing 7.4.0, the latest update to its free CAN/LIN analysis environment, at the Embedded World 2026. The release includes several new features such as LIN message logging, LIN log replay, and Signal Plot. The last one is a free-of-charge CanKing 7 extension, which enables real-time plotting of signal values for fast visualization of the system behavior. Therefore, the analysis environment is dedicated for fast bring up of HIL (hardware-in-the-loop) benches, and on-site debugging. Signal Plot is also allowing users to track multiple signals simultaneously, zoom into events, compare values using cursors, and switch seamlessly between live and pause modes. Signal Plot is the first extension built on the CanKing Extensions SDK, launched last year to let users create web technology GUI extensions – from dashboards to gauges and custom interpreters – without touching the core application. The SDK runs on Windows and Linux.

Alongside the new extension, CanKing 7.4.0 introduces support for LIN message logging and replay when using MDF4.x files. Improved MDF4.x support ensures that LIN data frames are recognized, enabling both the Message Logger and Message Replay nodes to work seamlessly across CAN and LIN traffic.

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Arm Cortex-R52+ processors with hardware-enforced virtualization, enabling freedom from interference between software functions and more efficient consolidation of workloads. In the software-defined vehicle (SDV) era, memory is a key driver of innovation. Stellar P3E integrates extensible xMemory based on phase-change memory (PCM) technology, delivering up to twice the density of traditional embedded flash and ensuring robust, automotive-qualified performance to support evolving software features throughout the vehicle's lifetime, stated the chipmaker.

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### EW26 news ticker

+++ Advantech (Taiwan) presented the ARK-2251 box PC with two CAN interfaces suitable for AI applications. +++ The Deltasart GNSs-to-CAN bridge for heavy-duty applications is a new development from Delta Components (Germany). It is available with two CAN ports supporting CAN CC and CAN FD. +++ Sontheim Industrie Elektronik (Germany) introduced a telematic unit with four CAN (FD) interfaces offering connectivity for J1939, Isobus, K-Line, and other communication standards in mobile automation area. The company also presented new CAN-FD-capable vehicle communication interfaces (VCI). +++ ESD Electronics has shown the esdEP Embedded Platform, which includes tailor-made DIN-rail modules for industrial automation. The modules feature three CAN FD ports supporting CANopen and J1939 communication. +++ Acromag's (U.S.A.) new Acropack Mini-PCIe interface module with four isolated CAN channels targets defense and avionics applications. Each channel has a Holt H13111 CAN controller paired with an Analog Devices ADM3053 transceiver. +++ The NRU-161V-FT and NRU-162S-FT are the new Edge AI computers by Neosys (Taiwan) with one CAN FD interface each. +++ The company 3Rtablet has shown CAN-enabled ruggedized in-vehicle tablets and vehicle telematics terminals for mobile machines and industrial vehicles. +++ Dave (Italy) provides Aura and Etra systems on module (SOM) with up to two CAN interfaces. +++ The Lilly and Picolilly SOMs from Incostartec (Germany) are available with a CAN (FD) port. +++ F&S Elektronik Systeme (Germany) introduced the Smarc MX95S system on module with a scalable performance and two CAN FD interfaces. +++ Forecr (Estonia) provides CAN-connectable ruggedized box PCs and carrier boards supporting Nvidia modules and dedicated for harsh aerospace and military environments. +++ Everfocus (Taiwan) offers AI-computing platforms such as the EAR-1000T (with two CAN FD ports) built on the Nvidia Jetson Thor T5000 module. +++ Göpel Electronic (Germany) presented the Scanflex II Cube modular JTAG/Boundary scan controller now available with CAN FD connectivity. +++ The new MSRZV2H system on module from Aries Embedded (Germany) based on Renesas RZ/V2H family architecture, provides two CAN FD interfaces. +++ Uni-Trend Technology (Germany) has shown its MS08000HD oscilloscope series with bandwidths of 8 GHz and 5 GHz. Protocol analysis of CAN CC and CAN FD networks is possible. +++ Arestech (Taiwan) presented the SB-5825B waterproof box PC (IP66) with an optional CAN interface accessible via an M12 connector. +++ The Edge Controller by Wago (Germany) features an ARM Cortex-A9 quad-core processor and offers one CANopen, two Ethernet, and two USB ports. +++ Infineon and Subaru announced their collaboration to improve driver safety in advanced driver assistance systems relying on the latest Aurix microcontrollers from Infineon. +++ of