CAN *Newsletter Online*

CUSTOMIZABLE CONFIGURATION

Industrial PC for artificial intelligence projects

Syslogic (Germany) released the industrial computer RML A3 Dev for development of AI (artificial intelligence) applications. The number of CAN interfaces (two regularly available) can be extended to six.

The industrial PC RML A3 Dev is configurable according to the customer's needs, said the company (Source: Syslogic)

The device is based on the AGX-Xavier module from Nvidia's Jetson series. Serial and CAN interfaces can be configured in terms of quantity and function according to customers requirements. The two available CAN interfaces support the 11-bit and 29-bit CAN-identifiers. The CAN ports are ESD-protected (electrostatic discharge) and galvanically isolated. Optionally, further CAN (FD) interfaces (up to four) can be implemented. The CAN interfaces are accessible via the 9-pin D-Sub connector. The device features a 32-GiB RAM, a 32-GiB eMMC, a display port, two USB 3.0 ports, two Ethernet interfaces, four PoE (Power over Ethernet) ports, and a slot for memory expansion up to 2 TiB. EIA-232, EIA-422, EIA-485, digital I/Os, analog inputs (e.g. for sensors), and wireless connectivity (LTE, UMTS, GSM, WiFi, GNSS) are the available options. Dead reckoning function, inertial measurement unit (IMU), as well as an ignition controller can be chosen from the offered functionality. Linux 4 Tegra (Ubuntu) is the used operating system. The possible temperature at the component level ranges from -25 °C to +80 °C.

The Nvidia Jetson AGX Xavier module features an eight-core CPU (central processing unit) combined with a 512-core Nvidia Volta GPU (graphics processing unit). Pre-trained neuronal networks combined with GPU-accelerated data processing at the network edge enable autonomous decisions without human intervention and without connection to the cloud. This is suitable for autonomous driving, for robot applications, or for autonomous machines.

Florian Egger, head of sales at Syslogic, said: "We collected all requirements from previous AI projects. Then, Syslogic developed a device that could reflect this range with minor adjustments." The embedded system, which is tailored to customer-specific requirements, can be made available within a short period of time. The customers can choose the features they actually need depending on the application".

For more than 30 years, Syslogic offers industrial computers, embedded PCs, single board computers, and touch-panel computers for industrial use. The devices are used in mechanical and automotive engineering as well as in traffic and train technology.

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