

RUGGED BOX PC

For construction and agricultural machinery

The RPC RS A2N by Syslogic offers a J1939 (FD) interface. Thus, the entry-level AI (artificial intelligence) PC is suitable for use in Isobus-based (agricultural) and other out-door applications.



The IP67-rated PC with in-device pressure equalization is dedicated for 24/7 operation in extreme environments (Source: Syslogic)

The PC is powered by a six-core Nvidia Jetson TX2 NX processor module with a 256-core Nvidia Pascal GPU (graphics processing unit). Offering an AI performance of 1,33 Tera operations per second (TOPS), it is combined with Syslogic's carrier board developed for vehicle use. Additionally, to a variety of standard interfaces and extension ports, it supports a CAN FD interface achievable via an A-coded M12 connector. Due to support of the higher-layer protocol J1939, it can be integrated into Isobus networks widely used in agricultural applications. Cellular 4G/LTE connectivity, optional GNSS (global navigation satellite system) receiver, WiFi, and Bluetooth are the possible wireless communication variants. Linux for Tegra (L4T) is the used operating system.

To protect the electronics against moisture, humidity, and dust, the computer features a IP67-rated housing with screw-on M12 connectors. Furthermore, a Gore vent element ensures pressure equalization inside the device and thus prevents dew formation during rapid temperature fluctuations. The device does not have any moving parts and is shock and vibration resistant. This makes it suitable for 24/7 operation in temperatures ranging from -25 °C to +70 °C. The built-in power supply with ignition controller enables to use input voltages from 9 V_{DC} to 45 V_{DC}.

Michael Jung, Product Manager at Syslogic explained that the RPC RS A2N can handle perception or intelligent vision applications with up to 12 full HD cameras, each with different deep-learning networks. The pre-installed Nvidia Jetpack developer environment provides comprehensive tools and libraries to reduce the time-to-market for future AI applications. The company's AI-assisted embedded systems can be used for decision-making solutions without human intervention and without connection to the cloud e.g. for autonomous driving, assistance systems, and video analytics.

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