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Qseven module with CAN interface

Kontron offers the Qseven-Q7AMX8X module. It comes with a NXP i.MX8X processor in dual-core and quad-core configuration respectively. It is suited as a basis for networked terminals in industrial applications.



(Source: Kontron)

The Qseven module is designed for use in the extended temperature ranges from -40 °C to +85 °C and is therefore also suitable for use in machines and devices that have to withstand harsh industrial environments. The Qseven-Q7AMX8X is available in three standard versions: with the QuadX+, the DualX+, and the DualX processor, up to four Cortex A35 cores, clocked up to 1,2 GHz. An additional Cortex-M4 core can be used for smaller management tasks in the system that previously required a separate controller.

The module in the Qseven form factor with the dimensions 70 mm x 70 mm offers the possibility to operate two displays. An HDMI and a dual-channel LVDS interface are available for this purpose. The equipment also includes up to three GiB LPDDR4 memory, one Gigabit Ethernet (GbE) port, up to three PCI Express (PCIe) and five USB 2.0 ports as well as one USB 3.0 port. Between two and 64 GiB eMMC 5.0 flash memory serve as mass storage. In addition, the Qseven-Q7AMX8X module has a SDIO card slot and a serial interface. With numerous additional interfaces, the module can be used according to individual requirements, including one CAN interface, one I²S, one I²C, one SPI, two MIPI CSI, and eight GPIO. Uboot serves as boot loader, a board support package for Yocto Linux is available.

The module optionally supports the Kontron Appprotect security solution powered by Wibu-Systems. A security chip from Wibu-Systems is embedded as a fixed part of the system. In combination with a software framework specially developed for this chip, it prevents reverse engineering and copying attempts from the user's own IP address as well as from a third-party software. The Appprotect Licensing also allows individual application functions, e.g. for demo purposes, to be available only for a time-based trial version or based on time base, by counting executions.

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