Press Release

PicoCore™MX8MM

NXP i.MX 8M Mini (ARM Cortex®-A53 Dual/ Quad & Cortex®-M4) on PicoCore™MX8MM

New PicoCore™ Module by F&S Elektronik Systeme GmbH

The PicoCore™ Computer On Module product family has a new member - the PicoCore™MX8MM, based on NXP's i.MX 8M Mini ARM® CPU. The size of 35 x 40mm only allows usage in compact housings. The module comes with high performance and is very well suited for secure cloud connections.

The i.MX 8M Mini is NXP's first embedded heterogeneous multi-core applications processor. It brings together high-performance computing, power efficiency, enhanced system reliability and embedded security needed to drive the growth of fast-growing edge node computing, streaming multimedia and machine learning applications.

The heart of the processor is a scalable core complex with up to four ARM® Cortex®-A53 cores with up to 2GHz, plus one Cortex®-M4 for real-time processing with 400+ MHz. The i.MX 8M Mini also packs-in hardware 1080p video acceleration to enable two-way video applications, 2D and 3D graphics to provide a rich visual HMI experience.

PicoCore™MX8MM is offered with SLC NAND FLASH or up to 64MB eMMC.
The module offers many interfaces on its 2x 100 poles plug connectors (Hirose DF40C). This allows a compact design and a small board-to-board distance (1.5-4mm board-to-board).
Part of the interfaces are specified per default (Interfaces-FIX), they are available on other PicoCore™ modules as far as possible. The Interfaces-FIX are 2x Serial (for debugging), 2x Ethernet, 1x USB Host, 1x USB Device, 1x CAN, 1x I²C (for the connection of external touch controllers), PCIe and analog audio signals (Line In/ Out/ Mic/ HP).
A MIPI-DSI interface with up to four lanes or a 24bit LVDS interface (up to FullHD) is available for display connection. The PicoCore™MX8MM is supplemented by an optional WLAN/ BT Modul.

The Linux operating system (Kernel 4.9.88/ Buildroot and Yocto) was ported by the experienced F&S Elektronik Systeme software department. Drivers for all interfaces were customized and tested. A virtual machine is ready for download and one can start the development of their own application under Qt immediately.

Along with Secure Boot (signed, encrypted), another optional security chip can be found on the module. The programming of certificates is also offered as a service.

Windows Embedded 10 IoT Core is available upon request.

The F&S project guarantee accompanies the customer from the start until the successful finish of the project. Starterkits, workshops, hardware and software documentations, as well as free support by the experienced engineers pave the way to customers' success.

PicoCore™MX8MM is available until minimum 2028.

The PicoCore™ MX8MM can be purchased directly at F&S Elektronik Systeme or via one of their worldwide distribution partners.

Product page: https://www.fs-net.de/en/products/picocore/picocoremx8mm-with-nxp-i-mx8m-mini-processor/

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