

New Embedian SMARC 2.0 module with NXP i.MX 8M Mini processor

Embedian – a leading vendor of standardized and customized embedded computer boards and modules – today introduces a new SMARC 2.0 Computer-on-Module with NXP i.MX 8M Mini processor. The SMARC-iMX8MM offers higher performance at significantly fewer watts due to the new 14nm FinFET structure. The module also offers impressive visualization capabilities – including 3D graphics with full-HD resolution – despite low thermal and system cost. The new SMARC 2.0 platform is ideal for established markets – such as industrial and medical HMIs, kiosk, vending and infotainment systems – as well as new markets, including situational awareness, machine learning or voice controlled and video enabled residential gateway devices. For mobile and transportation applications, the new SMARC modules offer extended temperature support as an option from -40°C to 85°C and an extended longevity of up to 15 years. Smart vision-based applications benefit from the hardware-accelerated MIPI CSI-2 camera interface.

The new SMARC modules with NXP i.MX8M Mini processor are application-ready sub systems that come with a comprehensive ecosystem including ready-to-go boot loader implementation, pre-qualified Linux, Yocto and Android BSPs and fully featured evaluation carrier boards. Embedian's personal integration support and broad range of individually selectable technical services significantly simplify the integration of this new NXP processor for customers.

The feature set of the SMARC 2.0 modules

The new SMARC modules addressing ultra-low-power and price-sensitive applications feature three different quad, dual and single core ARM Cortex-A53 and Cortex-M4 based NXP i-MX 8M Mini processors, each available for the extended (0°C to +60°C) and industrial temperature range (-40°C to +85°C). The processor integrated GC NanoUltra 3D GPU convinces with comprehensive 1080p video decoding (H.265, H.264, VP8/9) and encoding (H.264, VP8) capabilities for one embedded display that can be connected via dual Channel LVDS, eDP or MIPI-DSI. Up to 4 GByte of low-power LPDDR4 and an eMMC 5.1 non-volatile memory with up to 128 GByte provide extensive memory capacity on the module. Embedded cameras are connected via the MIPI-CSI-2 interface, while 5x USB 2.0 and 4x UART are state-of-the-art for industrial use. For intersystem connect, the module offers 1x Gbit Ethernet as well as 1xPCIe extension.