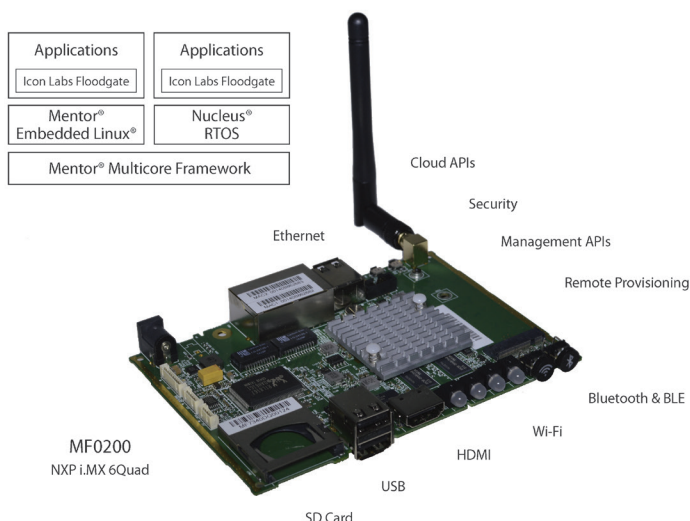


MENTOR EMBEDDED

IoT Intelligent Connected Gateway

D A T A S H E E T



The Mentor gateway SysDK™ reference design can be used in its current form, or customized to meet specific gateway hardware and software requirements, including compatibility with legacy infrastructure and new IoT deployments.

The Mentor Graphics End-to-End IoT Solution

The Mentor Graphics comprehensive IoT solution is comprised of a unique customizable IoT gateway System Design Kit (SysDK™), a cloud backend, and runtime software solutions on which to build a wide array of IoT edge devices. Mentor's solution enables the most demanding IoT requirements with support from 8-bit microcontrollers to the latest 64-bit microprocessors, and deployments of 100,000+ gateways each supporting dozens of edge devices.

IoT Intelligent Gateway - A Customizable, Production-ready Reference Design

The Mentor Graphics gateway SysDK provides a starting point that is a proven reference design. Customers can purchase the Mentor gateway SysDK and customize it to their individual specifications, or the design can be fully customized by Mentor Graphics, the market leader in PCB tools for layout and manufacturing. The gateway SysDK therefore, can lower overall costs and shorten time to market, while delivering an advanced customized and intelligent gateway solution. The gateway models, MF0200 and MF0600 include a Linux® Yocto™ Project-based SDK and the following features off-the-shelf:

MF0200 Platform:

- NXP i.MX 6 Quad ARM® Cortex®-A9 Processor
- 2G DDR3 Memory



PRODUCT HIGHLIGHTS:

- Commercially available for out-of-box use
- HW and SW fully customizable
- IoT industry standard physical interfaces supported
- Rich BSP includes drivers for hardware components
- Software and development tools options exist for rich and highly secure applications

CUSTOMIZATION OPTIONS:

- Mentor IoT Intelligent Gateway cloud middleware
- Mentor® Embedded Linux® and Nucleus® RTOS
- Mentor® Embedded Multicore Framework
- Mentor® Embedded Hypervisor
- Sourcery™ CodeBench and Analyzer development tools
- ARM® TrustZone® security
- Icon Labs Floodgate Security Framework
- Processor
- Connectivity and I/O

BENEFITS:

- **Reduces risk, cost, and time-to-market**
The customized intelligent gateway can be designed and produced in as little as eight weeks
- **Multiple business models available**
The gateway can be purchased or provided as a managed subscription

- 16G eMMC
- HDMI Output for Accelerated Video
- Wi-Fi 802.11b/g/n
- Bluetooth Low Energy (BLE) Wireless Connectivity
- 2x Gigabit Ethernet LAN Connectivity
- 4x USB 2.0 Ports
- 1x USB OTG (internal)
- SD CARD Full-Size Slot
- NGFF (M.2) Slot for optional SSD
- 2x UARTs (internal)
- 10x GPIO Lines (internal)

MF0600 Platform includes MF0200 plus:

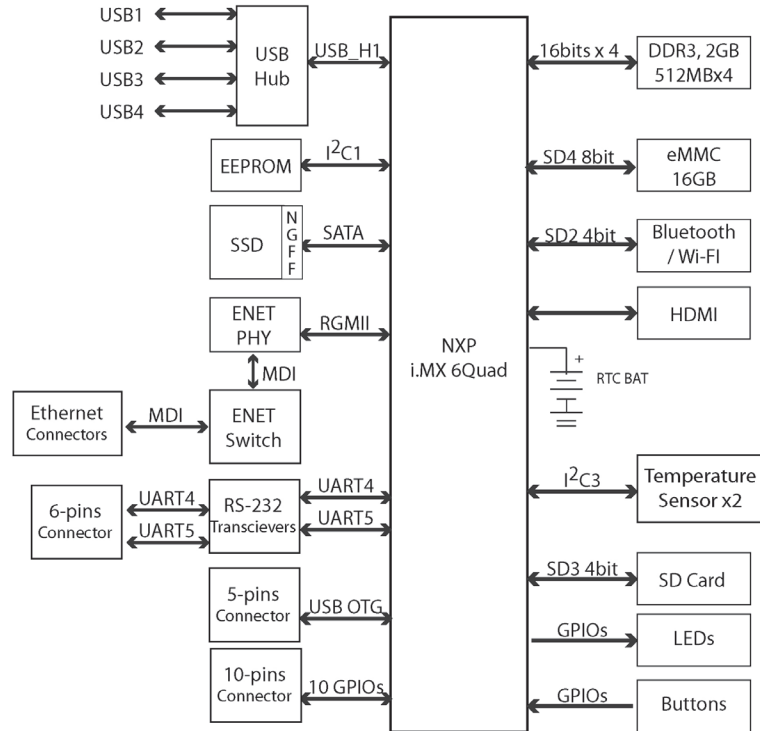
- HDMI Input
- Wi-Fi 802.11a/c
- IEEE 802.15.4 ZigBee/6LoWPAN
- 1x Gigabit Ethernet WAN Connectivity
- Switching Router

Cloud to End Node Security

The IoT intelligent gateway reference design can be customized to provide a layered approach to device security. Embedded software support for multiple hardware features of the i.MX6 can be realized via the trusted execution of ARM® TrustZone®. Additional layers of security can be achieved through high assurance boot for authenticated and encrypted boot, hardware cryptographic accelerators, a random number generator with tamper detection protecting against run-time tampering. Together, these features safe-guard customer designs from the point of manufacturing to the point of deployment, providing continuous protection from malicious attacks to ensure that end products deliver the highest level of security and reliability.

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SysDK Gateway System Block Diagram: (MF0200)



Mentor's Customization Services

To enable customers to achieve their business goals quickly, Mentor Graphics has a team of experts who are available to consult in the design of customized IoT gateway hardware and software architectures. Mentor's customized services spans edge devices to cloud and has expertise in system design for performance optimizations in hardware and software, multimedia applications, security and safety architectures, including industrial IEC 61508 and medical IEC 62304.

More about Mentor Embedded

Mentor Graphics® Embedded Systems Division comprises the Mentor Embedded™ family of products and services, including embedded software IP, tools, and professional services to assist developers and silicon partners to optimize their products for design and cost efficiency.

For the latest product information, call us or visit: www.mentor.com/embedded

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