Scalable multicore solutions breaking the boundaries of user experience

i.MX 6 Series of Applications Processors

The i.MX 6 series of applications processors is a feature- and performance-scalable multicore platform that includes single-, dual- and quad-core families based on the ARM® Cortex® architecture, including the Cortex-A9 core, combined Cortex-A9 + Cortex-M4 cores and Cortex-A7-based solutions up to 1.2 GHz.

TARGET APPLICATIONS

- Automotive infotainment
- Digital signage
- E-Readers
- Human-machine interface
- Home energy management systems
- In-flight entertainment
- Intelligent industrial control systems
- IP phones
- IPTV
- Portable medical devices
- Smartbooks
- Tablets
- Point-of-sale devices
- Digital cluster
- Vehicle-to-vehicle connectivity
- Home audio systems
- Secure smart-connected devices

Targeting consumer, industrial and automotive applications, the i.MX 6 series combines broad levels of integration and power-efficient processing capabilities all the way up to bleeding edge 3D and 2D graphics, as well as high-definition video, to provide a new level of multimedia performance for an unbounded next-generation user experience. The i.MX 6 series is supported by our proprietary companion power management integrated circuits (PMICs).

TEN SCALABLE FAMILIES

The **i.MX 6QuadPlus** family encompasses a quad-core platform running up to 1.2 GHz* with 1 MB of L2 cache, hardware accelerated graphics and 64-bit DDR3 or 2-channel, 32-bit LPDDR2 support. Integrated FlexCAN and MLB busses, PCI Express® and SATA-2 provide excellent connectivity while integration of dual-lane MIPI display ports, a MIPI camera port and HDMI v1.4 makes it an ideal platform for consumer, automotive and industrial multimedia applications.

* 1.0 GHz available. Contact NXP® for 1.2 GHz availability.

i.MX 6 SERIES AT A GLANCE

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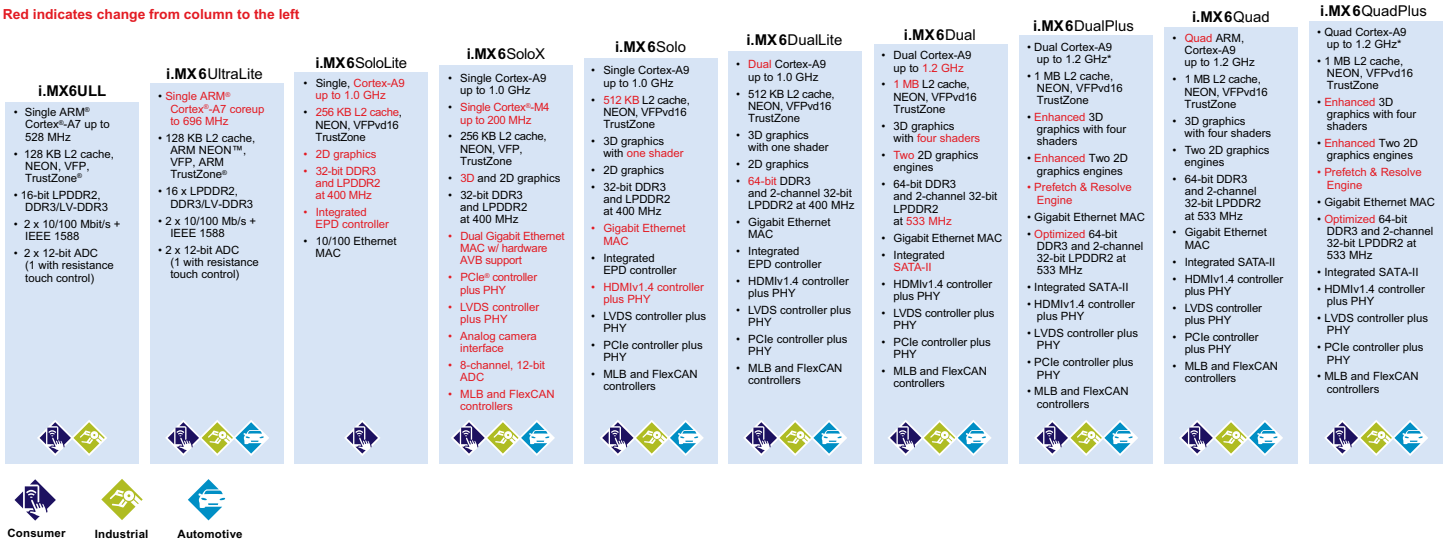

The **i.MX 6Quad** family encompasses a quad-core platform running up to 1.2 GHz with 1 MB of L2 cache, hardware accelerated graphics and 64-bit DDR3 or 2-channel, 32-bit LPDDR2 support. Integrated FlexCAN and MLB busses, PCI Express® and SATA-2 provide excellent connectivity while integration of dual lane MIPI display ports, MIPI camera port and HDMI v1.4 makes it an ideal platform for consumer, automotive and industrial multimedia applications.

The **i.MX 6DualPlus** MCU family provides dual cores running up to 1.2 GHz* with 1 MB of L2 cache, enhanced hardware accelerated graphics, prefetch and resolve engine and optimized 64-bit DDR3 or 2-channel, 32-bit LPDDR2 support. Leveraging the same integration of the i.MX 6QuadPlus family, the i.MX 6DualPlus provides a scalable solution for consumer, automotive and industrial applications.

The **i.MX 6Dual** family provides dual cores running up to 1.2 GHz with 1 MB of L2 cache, hardware accelerated graphics and 64-bit DDR3 or 2-channel, 32-bit LPDDR2 support. Leveraging the same integration of the i.MX 6Quad family, the i.MX 6Dual provides a scalable solution for consumer, automotive and industrial applications.

The **i.MX 6DualLite** family introduces dual cores running up to 1.0 GHz with 512 KB of L2 cache, and 64-bit DDR3 or 2-channel, 32-bit LPDDR2 support. With integrated FlexCAN and MLB busses, PCI Express, LVDS, and support for MIPI cameras and displays as well as HDMI v1.4, the device is a great fit for consumer, automotive and industrial multimedia-centric applications.

The **i.MX 6Solo** family provides a single core running up to 1.0 GHz with 512 KB of L2 cache and 32-bit DDR3/LPDDR2 support. Integrated LVDS, MIPI display, MIPI camera port, HDMI v1.4, FlexCAN and MLB enable the i.MX 6Solo MCU family to be a flexible platform for consumer, automotive and industrial applications.

The **i.MX 6SoloX** family introduces single cores running up to 1.0 GHz (Cortex-A9) and 227 MHz (Cortex-M4) with 256 KB of L2 cache and 32-bit DDR3/LPDDR2 support. Integrated LVDS, FlexCAN, and PCIe Express enable the i.MX 6SoloX to be a low-power and flexible platform for consumer, automotive and industrial applications that require real-time responsiveness and a higher level of system integrity.

The **i.MX 6SoloLite** family provides a single core running up to 1.0 GHz with 256 KB of L2 cache and 32-bit DDR3/LPDDR2 support. Targeted integration of an electronic paper display (EPD) controller makes it an ideal solution for next generation e-readers and other emerging consumer and embedded devices using EPD technology.

The **i.MX 6UltraLite** family introduces a single Cortex-A7 core running up to 696 MHz with 128 KB of L2 cache and 16-bit DDR3/LPDDR2 support. This efficient, cost–optimized multi-market applications processor, with integrated power management, advanced security unit and wide range of connectivity interfaces, provides new ways to address performance scalability and low power for secure smart homes and IoT applications.

The **i.MX 6ULL** family introduces a single Cortex-A7 core running up to 528 MHz with 128 KB of L2 cache and 16-bit DDR3/LPDDR2 support. The i.MX6ULL family provides the lowest power, optimized feature integration and most competitive cost to meet the requirements of IoT gateways, end nodes and consumer electronics.

Join fellow i.MX developers online at **www.imxcommunity.org**.

* 1.0 GHz available. Contact NXP for 1.2 GHz availability.

www.nxp.com/iMX6Series

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10 15 Product Longevity

Energy Efficient Solutions by Freescale