SABRE Platform for Smart Devices Based on the i.MX 6 Series

SABRE Platform for Smart Devices System Contents

- i.MX 6Quad or i.MX 6DualLite processor-based system with enclosure, board, LCD, cameras and speakers

- Power supply

- Quick start guide

- Bootable SD card containing an Android OS

Overview

Freescale delivers the ultimate in performance and design flexibility with the Smart Application Blueprint for Rapid Engineering (SABRE) platform for smart devices based on the i.MX 6Quad and i.MX 6DualLite families of consumer applications processors. The SABRE platform for smart devices is the latest in a series of high-performance, market-focused development kits and is engineered to introduce designers to advanced multimedia and graphics applications based on the i.MX 6 series ARM® Cortex™-A9 applications processor.

The SABRE platform for smart devices can be targeted towards any device requiring an intelligent display, connectivity, low power and amazing user experience. It provides a foundation for enabling new product designs in markets such as portable computing, education, industrial, medical and home automation. With system-level power and performance optimizations and an easy-to-use form factor, the SABRE platform for smart devices can help to accelerate your design from production to market. Broad operating system support includes Android™, Linux® and Windows® Embedded (via third party), providing a springboard for product differentiation. Our highly optimized board support packages (BSPs), codecs and middleware maximize the capabilities of the i.MX 6Quad and i.MX 6DualLite processors' feature set while minimizing the overall power consumption to provide longer use.

Key Benefits

- Designed to include all the features necessary for a smart device, the SABRE allows you to hold in your hands and evaluate the full multimedia performance capabilities of the i.MX 6Quad and i.MX 6DualLite families, including dual-/quad-core performance, 1080p video, fast web browsing, dual cameras, realistic 3D and 2D gaming applications and a richer and more responsive user experience

- Ease of use is the hallmark of the design. The majority of board features are directly accessible to engineers. Market-specific components can be added to the board without removing a single screw, through available expansion headers

- Explore multiple connectivity options, including Wi-Fi®, Bluetooth®, GPS, Ethernet, SD, parallel/serial interfaces, SATA, PCIe and MIPI CSI

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- Develop and showcase custom applications on the sleek and responsive capacitive multitouch display to provide a more compelling and realistic demonstration for your project stakeholders and customers

- Evaluate a real design example of how the smartly integrated i.MX 6Quad and i.MX 6DualLite processors offer more on chip, including an LVDS controller, USB PHYs, HDMI PHYs, SATA, PCIe, on-board power management and Ethernet, passing on significant BOM cost savings in your design

- Use proven design examples and software drivers to reduce hassles associated with design-in of key connectivity options

Software and Tools

The SABRE platform for smart devices comes with an SD card pre-installed with the Android operating system. Linux is available from Freescale and several third-party operating system choices exist. Android and Linux are provided and supported by Freescale. In addition to optimized BSPs, Freescale also provides a large portfolio of optimized video, speech and audio codecs. More information is available at **freescale.com/SABRESDP**.

Ordering Information

Part Number	Description
MCIMX6DL-SDP	SABRE platform for smart devices
MCIMX6Q-SDP	SABRE platform for smart devices

Platform Features

Processor	• Freescale i.MX 6Quad or 6DualLite 1 GHz ARM® Cortex™-A9 processor
Memory/storage	• 1 GB DDR3 SDRAM up to 533 MHz (1066 MTPS) memory • 8 GB eMMC flash • 4 MB SPI NOR flash
Display	• 10.1" 1024 x 768 LVDS display with integrated P-cap sensing • HDMI connector • LVDS connector (for optional second display) • LCD expansion connector (parallel, 24-bit) • EPDC expansion connector (for 6DualLite only) • MIPI DSI connector (two data lanes, 1 GHz each)
User interface	• 10.1" capacitive multitouch display • Buttons: power, reset, volume
Power management	• Freescale PF series 101
Audio	• Wolfson audio codec • Microphone and headphone jacks • Dual 1 watt speakers
Expansion connector	• Camera MIPI CSI port • I²C, SSI, SPI signals
Connectivity	• Full-size SD/MMC card slots (2x) • 7-pin SATA data connector • 10/100/1000 Ethernet port • 1x USB 2.0 OTG port (micro USB)
Debug	• JTAG connector (20-pin) • 1x Serial-to-USB connector (for JTAG)
OS support	• Linux® and Android™ (Freescale) • Others supported via third party (QNX, WindowsCE)
Tools support	• Manufacturing tool (Freescale) • IOMUX tool (Freescale) • Lauterbach, ARM (DS-5), IAR and Macraigor
Additional features	• 3-axis Freescale accelerator • GPS receiver • Dual cameras • USB plug power supply • Battery charger • Battery connectors (battery not included)

SABRE Platform for Smart Devices

For additional information, please visit freescale.com/iMXSABRE

Join fellow i.MX developers online at imxcommunity.org
—an active community of open source developers.

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