



Based on the  
i.MX 6 Series

## SABRE Platform for Smart Devices

We deliver 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.

### 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
- ▶ 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 (i.MX 6Quad only), 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

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.





## SABRE PLATFORM FOR SMART DEVICES



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.

### 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 our company and several third-party operating system choices exist. Android and Linux are provided and supported by us. In addition to optimized BSPs, we also provide a large portfolio of optimized video, speech and audio codecs. More information is available at [www.nxp.com/SABRESDP](http://www.nxp.com/SABRESDP).

### PLATFORM FEATURES

Processor	<ul style="list-style-type: none"> <li>i.MX 6Quad or 6DualLite 1 GHz ARM® Cortex®-A9 processor</li> </ul>
Memory/storage	<ul style="list-style-type: none"> <li>1 GB DDR3 SDRAM up to 533 MHz (1066 MTFS) memory</li> <li>8 GB eMMC flash</li> <li>4 MB SPI NOR flash</li> </ul>
Display	<ul style="list-style-type: none"> <li>10.1" 1024 x 768 LVDS display with integrated P-cap sensing</li> <li>HDMI connector</li> <li>LVDS connector (for optional second display)</li> <li>LCD expansion connector (parallel, 24-bit)</li> <li>EPDC expansion connector (for 6DualLite only)</li> <li>MIPI DSI connector (two data lanes, 1 GHz each)</li> </ul>
User Interface	<ul style="list-style-type: none"> <li>10.1" capacitive multitouch display</li> <li>Buttons: power, reset, volume</li> </ul>
Power Management	<ul style="list-style-type: none"> <li>Proprietary PF0100 PMIC</li> </ul>
Audio	<ul style="list-style-type: none"> <li>Audio codec</li> <li>2x digital microphones</li> <li>2x 3.5 mm audio ports</li> <li>Dual 1 watt speakers</li> </ul>
Expansion Connector	<ul style="list-style-type: none"> <li>Camera MIPI CSI port</li> <li>I<sup>2</sup>C, SPI signals</li> </ul>
Connectivity	<ul style="list-style-type: none"> <li>2x full-size SD/MMC card slots</li> <li>7-pin SATA data connector</li> <li>10/100/1000 Ethernet port</li> <li>1x USB 2.0 OTG port (micro USB)</li> </ul>
Debug	<ul style="list-style-type: none"> <li>JTAG connector (20-pin)</li> <li>1x Serial-to-USB connector (for JTAG)</li> </ul>
OS Support	<ul style="list-style-type: none"> <li>Linux® and Android™ from our company</li> <li>Others supported via third party (QNX, Windows Embedded)</li> </ul>
Tools Support	<ul style="list-style-type: none"> <li>Manufacturing tool from our company</li> <li>IOMUX tool from our company</li> <li>Lauterbach, ARM (DS-5), IAR and Macraigor</li> </ul>
Additional Features	<ul style="list-style-type: none"> <li>Proprietary 3-axis accelerometer</li> <li>Proprietary 3D magnetometer</li> <li>Ambient light sensor</li> <li>GPS receiver module</li> <li>2x 5MP cameras</li> <li>Battery charger</li> <li>Battery connectors (battery not included)</li> </ul>

### ORDERING INFORMATION

Part Number	Description	MSR (USD)
MCIMX6DL-SDP	SABRE platform for smart devices	\$999
MCIMX6Q-SDP	SABRE platform for smart devices	\$999

[www.nxp.com/iMXSABRE](http://www.nxp.com/iMXSABRE)  
[imxcommunity.org](http://imxcommunity.org)

© 2012, 2015 Freescale Semiconductor, Inc.

The Energy Efficient Solutions logo is a trademark of Freescale Semiconductor, Inc., Reg. U.S. Pat. & Tm. Off. All other product or service names are the property of their respective owners. ARM and Cortex are registered trademarks of ARM Limited (or its subsidiaries) in the EU and/or elsewhere.

Document Number:  
IMX6SABRESDPFS REV 2

