

## SABRE Lite Development Kit

- Freescale i.MX 6Quad ARM® Cortex A9 processor at 1GHz per core
- 1GByte of 64-bit wide DDR3 @ 532MHz
- UART, USB, Ethernet, CAN, SATA, SD, JTAG, I2C...
- Three Display Ports (RGB, LVDS and HDMI 1.4a) and Two Camera Ports (1xParallel, 1x MIPI CSI-2)
- Analog (headphone/mic) and Digital (HDMI) audio
- Ready-to-Run Linux 3.0.15 and Android 4.0.4 OS



Figure 1-1 SABRE Lite Development Board

### Overview

The SABRE Lite development board is a low-cost development platform based on Freescale's I.MX 6Quad ARM Cortex-A9 application processor which encompasses a quad-core platform running up to 1 GHz with 1 MB of L2 cache and 64-bit DDR3 or 2-ch., 32-bit LPDDR2 support. Integrated FlexCAN, MLB busses, PCI Express® and SATA-2 provide excellent connectivity, while integration of LVDS, MIPI display port, MIPI camera port and HDMI v1.4 makes it an ideal platform for leading-edge consumer, automotive and industrial multimedia applications.

The SABRE Lite Board is measuring only 3.25 inch by 3.25 inch, it is a very compact board but takes full features of the I.MX6Quad processor. The board has integrated 1GByte of 64-bit wide DD3 and 2MByte SPI Flash and brought out a number of interfaces for peripheral connecting, such as serial ports, USB, Ethernet, CAN, SATA, RGB, LVDS, HDMI, Audio, Camera, I2C, SD Card, JTAG and etc.

The SABRE Lite Development Kit includes one SABRE Lite board, one 5V power adapter, one customized serial cable, one cross serial cable (DB9-DB9), one USB cable, one net cable and one 4GByte micro SD card to help customer quickly start their development when getting the goods. The board is a ready-to-run platform with ported Linux 3.0.15 or Android 4.0.4.

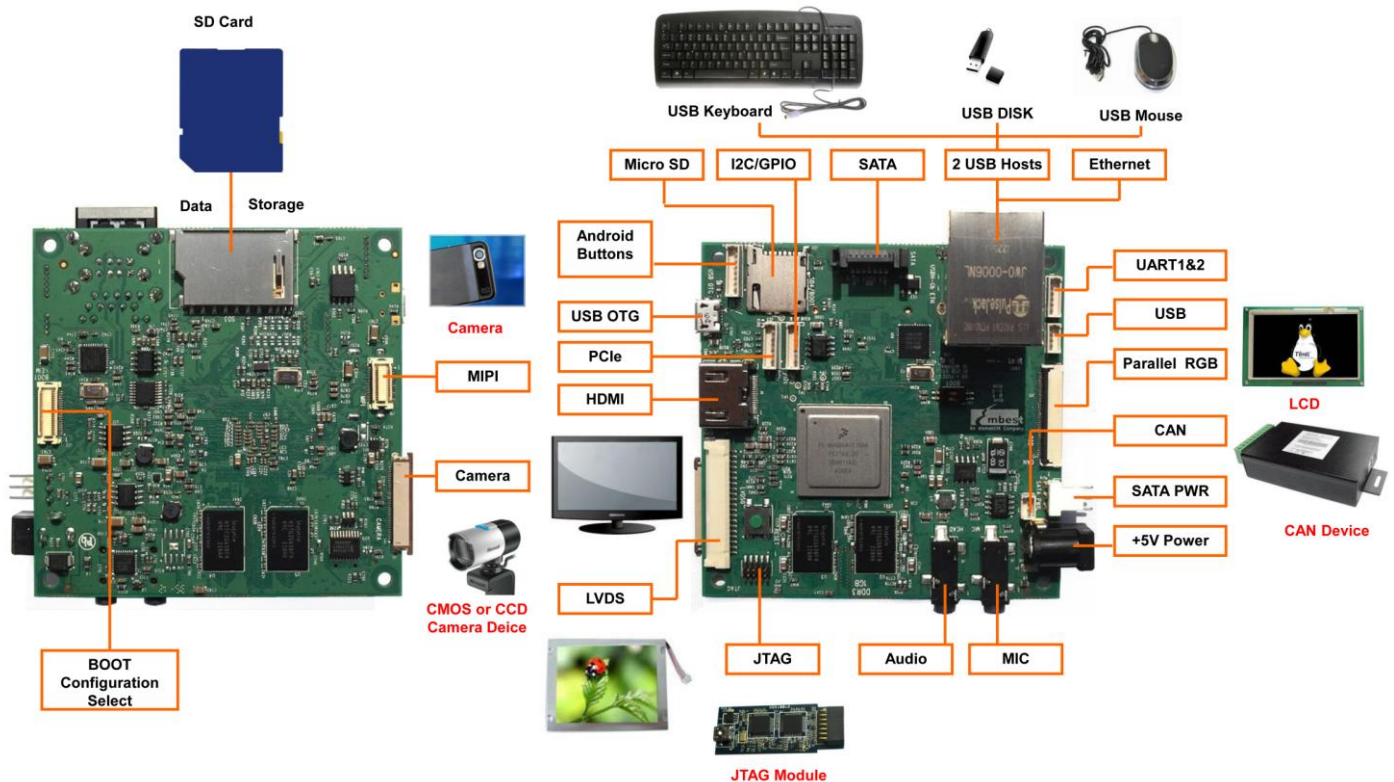
## Hardware Features

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The i.MX6x SABRE Lite Board is a low-cost development platform featuring the powerful i.MX 6Quad Application Processor. The hardware specifications for the SABRE Lite board are the following:

- Mechanical Parameters
  - Working Temperature: 0 °C - 70 °C
  - Humidity Range: 20% - 90%
  - Dimensions: 3.25 inch by 3.25 inch
  - Input Voltage: +5V
- Processor
  - ARM Cortex A9 MPCore™ 4xCPU Processor at 1GHz
  - Multi-stream-capable HD video engine delivering H.264 1080p60 decode, 1080p30 encode, and 3-D video playback in HD
  - Triple Play Graphics System consisting of a Quad-shader 3D unit capable of 200MT/s, and a separate 2-D and separate OpenVG Vertex acceleration engines for superior 3D, 2D, and user interface acceleration
- Memories
  - 1GByte of 64-bit wide DDR3 @ 532MHz
  - 2MByte SPI FLASH
- Media Interfaces
  - Analog headphone/microphone, 3.5mm audio jack
  - LVDS interface
  - HDMI 1.4a interface
  - Parallel RGB interface
  - Camera interface (Support CCD or CMOS camera)
  - MIPI lanes at 1 Gbps
- Data Transfer Interfaces
  - Serial Ports
    - UART1, 3 line serial port, RS232 Logic
    - UART2, 3 line serial port, RS232 Logic
  - USB Ports:
    - 1 x USB2.0 OTG, micro USB, high-speed, 480Mbps
    - 2 x USB2.0 HOST, Type A, high-speed, 480Mbps
    - 2 x USB2.0 HOST, connector, high-speed, 480Mbps
  - TF card interface
  - SD card interface
  - SATA II interface, 3.0 Gbps

- 10M/100M/1Gbps Ethernet Interface (RJ45 jack)
- 1 channel I2C interface
- 1 channel PCIE X1 interface
- CAN bus
- Input Interfaces
  - Android keyboard interface
  - 10-pin JTAG interface
  - 2 bit DIP switch for boot mode selection
  - Boot configuration interface
- Others
  - 1 Power LED
  - 1 DC Jack
  - 1 Reset button



## Dimensions

The overall dimensions of the SABRE Lite board are 3.25”x3.25”

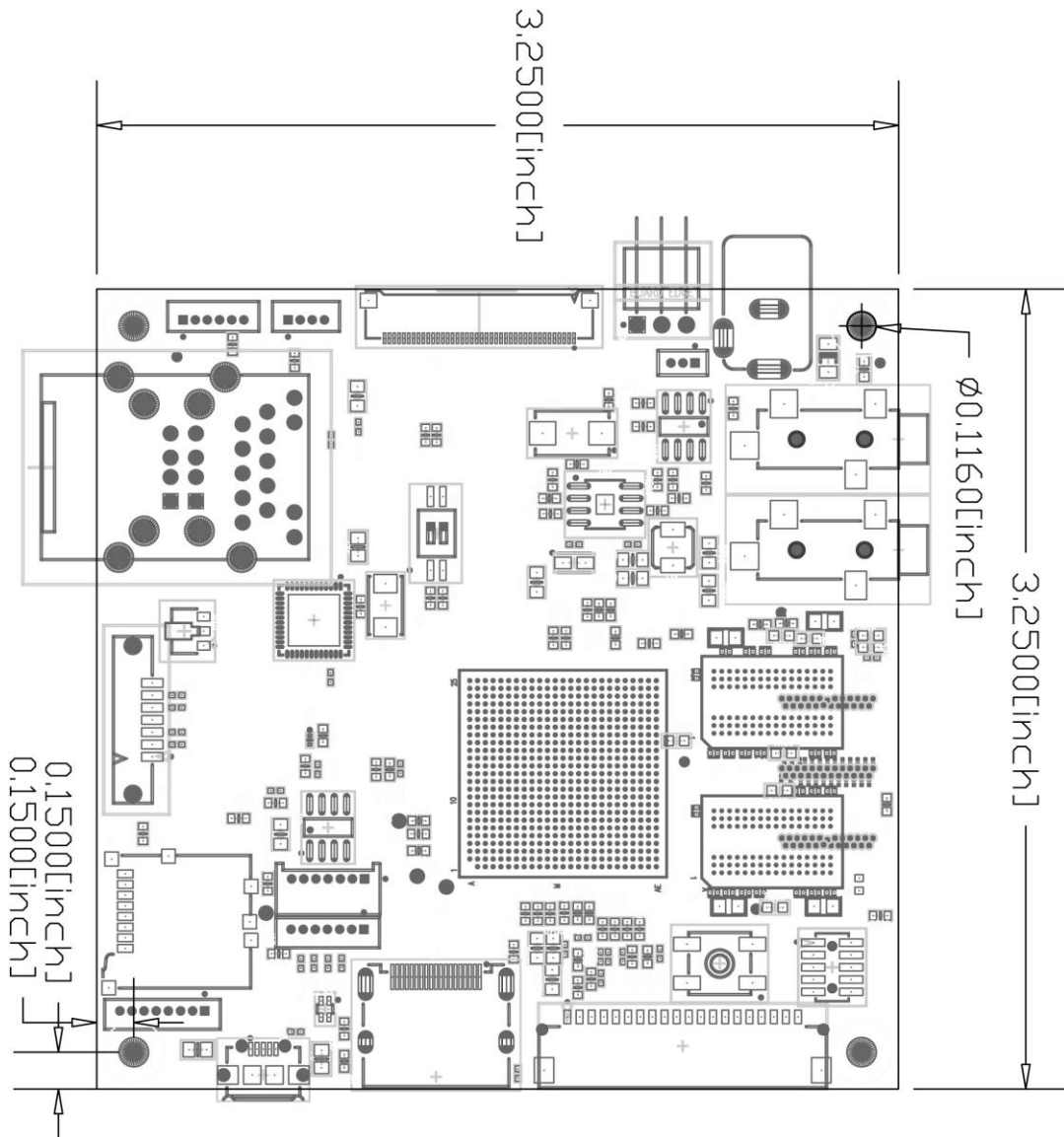


Figure 1-2 SABRE Lite Dimension Chart

## Function Block Diagram

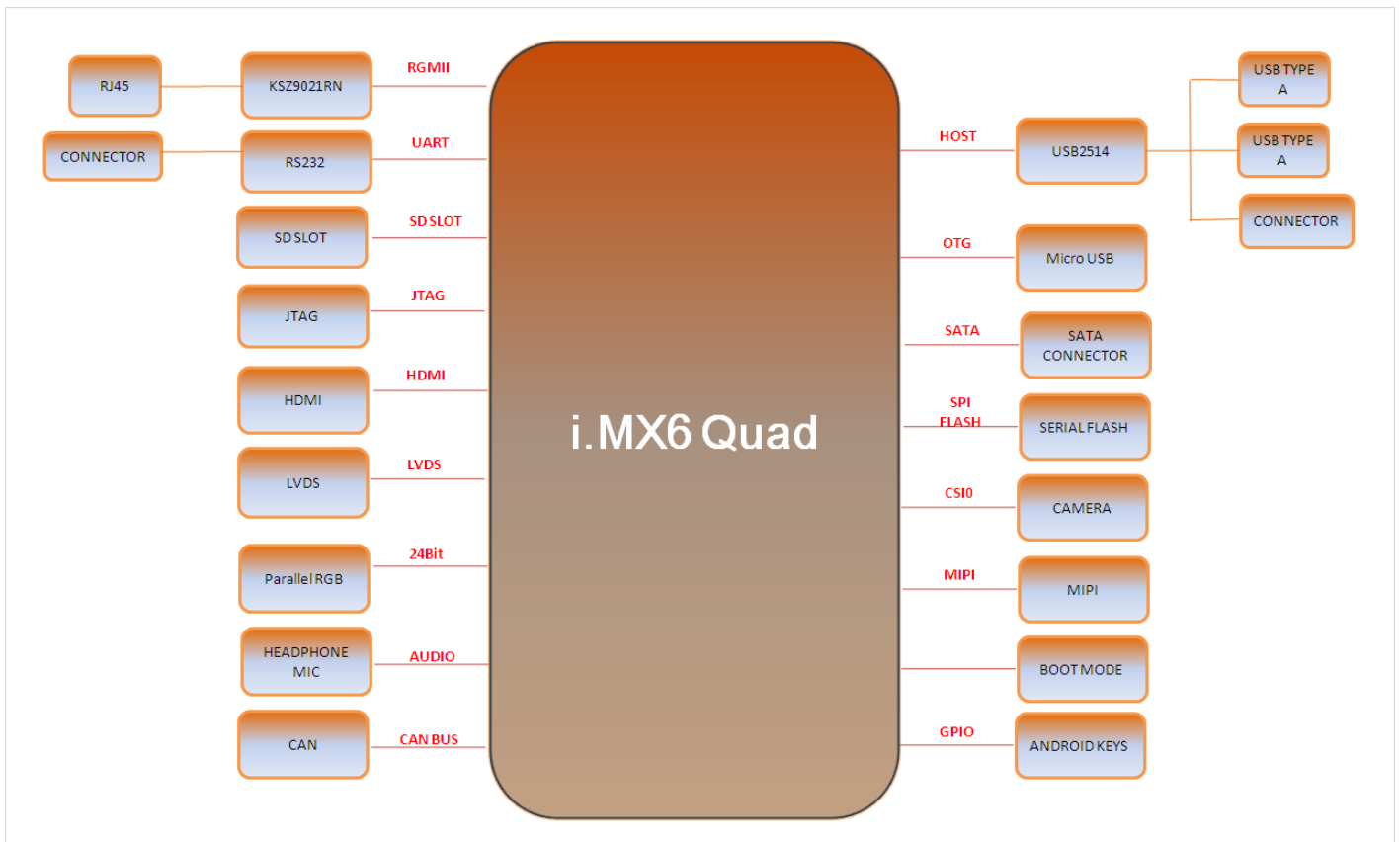


Figure 1-3 SABRE Lite Function Block Diagram

## Software Features

Items		Notes
OS	Linux	Version 3.0.15
	Android	Version 4.0.4
Device Driver	Serial	Series driver
	Rtc	Hardware clock driver
	Net	10/100/Gb IEEE1588 Ethernet
	Flash	Spi flash driver
	Display	Three display ports (RGB, LVDS, and HDMI 1.4a)
	mmc/sd	Dual SD 3.0/SDXC card slots
	Sata	Serial ATA 2.5 (SATA) at 3Gbps
	Usb	3 High speed USB ports (2xHost, 1xOTG)
	Audio	Analog (headphone/mic) and Digital (HDMI) audio
	Camera	Two camera ports (1xParallel, 1x MIPI CSI-2)
	PCIe	PCIe port (1 lane)
	Can	1xCAN2 port
	Keypad	gpio keyboard driver
	Led	User leds driver

**Order Information**

Order No.	T6010228
Item	SABRE Lite Development Kit
Deliveries	<ul style="list-style-type: none"><li>• One SABRE Lite Development Board</li><li>• One 5V@4A Power adapter</li><li>• One Sabre Lite customized serial cable (6-pin connector to Dual-DB9 connectors)</li><li>• One cross serial cable(DB9-DB9)</li><li>• One 4GB micro SD card</li><li>• One cross Ethernet cable</li><li>• One USB data cable (Type A male to Type Mini-B male)</li></ul>
Price	Please contact us.

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