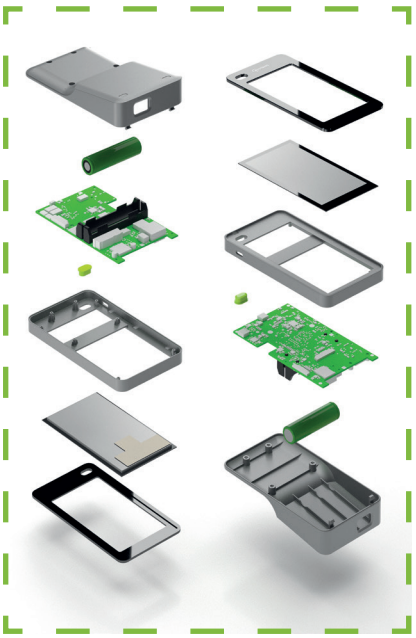
SX Mobile Device Kit



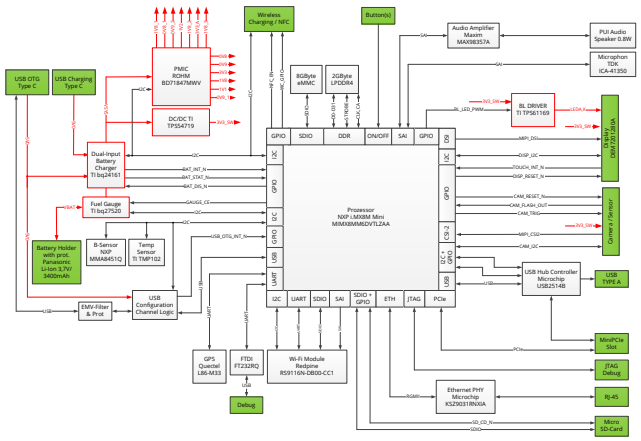
Data sheet

The SX Mobile Device Kit

– a platform for mobile enterprise applications

Solectrix holds many years of experience in developing professional mobile devices. Supporting our customers in developing their mobile devices is the motivation behind the SX Mobile Device Kit (MDK). Based on the newly available NXP i.MX8M Mini CPU it is designed as a versatile mobile device platform. Special needs of mobile devices like low power consumption or a reliable battery supply and charging operation are considered.

All areas of a product development as electronics, software, design and construction are covered. Focusing on mobile vision applications the MDK provides the opportunity to be extended by a various set of imaging sensors. Use the MDK to evaluate the imaging sensor that fits best to your application!



Board Support Packages including driver support for all elementary interfaces and components that are present on the MDK are provided. For the integration of your specific software components Solectrix offers customized engineering services.

You can choose to build a mobile device based on the MDK PCBA as it is or to modify the MDK to fulfill exactly the specific needs of your application. In any case, by using the MDK shorter development times can be achieved. Initiating a functional model phase with the MDK enables you to start the software development early. At the same time you can develop the prototype according to your detailed requiremtents.

Technical Specifications - Data Sheet

CPU	NXP i.MX8M Mini
	up to Quad-core Cortex-A53, 2.0GHz
	Single-core Cortex-M4F, 400MHz
	2D / 3D GPU (OpenGL ES 2.0)
DRAM	2GB LPDDR4
Storage	8GB eMMC Flash
Wireless	Redpine RS9116
	802.11 a/b/g/n (2.4 GHz and 5 GHz), 802.11j
	Dual-mode Bluetooth 5 ("Bluetooth Classic and BLE")
Display	4-lane MIPI DSI
	Capacitve Touch interface
	Ready for DEM 7201280A Display Module
	5" TFT / Resolution 720x1280
Camera	Flexible sensor extension interface
	4-lane MIPI CSI-2
	Power supply for sensor extension boards
	I2C interface for sensor configuration
	GPIO signals for flash / illumination control
Location	Quectel L86
	Compact GNSS Module (GPS, GLONASS, and QZSS)
Audio	Maxim MAX98357A PCM Class D Amplifier
	Magnetic Speaker (0.7W / 88dB)
	PDM Microphone
Connectivity	microSD card slot
	2x USB Type-C (1x charging only / 1x USB OTG)
	miniPCIe connector
	RJ45 1GB Ethernet (optional)
	1x USB Type-A (optional)
	FT232 USB-to-UART
Power	Power Supply via USB Type-C
	18650 Li-Ion battery holder
	TI bq24161 charger on-board
	TI bq27520 Fuel Gauge on-board
	Wireless Charging extension connector
Operating systems	Android 9 ("Pie")
	Yocto Linux BSP
	Debian Linux BSP
PCB dimensions	125mm x 78mm

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